



कृषिवानिकी समाचार Agroforestry News



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Editors



Dr. RP Dwivedi
Dr. K Rajarajan
Sh. J L Sharma
Sh. Birendra Singh

On 16th July, 2021, ICAR-CAFRI organized a Nation-wide Tree Plantation Campaign as the part of India@75 Azadi ka Amrit Mahotsav on the eve of the 93rd Foundation Day of the Indian Council of Agricultural Research (ICAR). Dr. Trilochan Mohapatra, Secretary DARE & DG ICAR, DDGs and ADGs of ICAR headquarters were also present in the meeting. Dr. A. Arunachalam, Director, ICAR-CAFRI coordinated this program that aimed to plant 10 lakhs tree seedlings plantation all over the country by involving NARES, SMAF and other partners. In all, 9.54 lakhs tree seedlings were finally planted.



Director General, ICAR inaugurated the first-ever Virtual Tree Plantation Campaign at ICAR-CAFRI

Tree Plantation Campaign

Date: 16 July 2021; Time: 9.30 AM IST


Chief Guest
Dr. Trilochan Mohapatra
Secretary, DARE & Director General, ICAR


Theme: **Har Med Par Ped**

Webex Meeting Link
<https://isaf.webex.com/isaf/j.php?MTID=mb469546e7066110b05005de1fb84a1e7>
Meeting ID: 184 310 5148; Meeting password: 12345


Organizing Team



Dr. S.K. Chaudhari
DDG (NARES)
ICAR, New Delhi





Dr. S. Bhaskar
ADG (AR&CC)
ICAR, New Delhi






Dr. A. Arunachalam
Director, ICAR-CAFRI
Jhansi, Uttar Pradesh

Organized by:

in association with

Visit of Hon'ble DDG (NRM) ICAR, Dr. S.K. Chaudhari at ICAR-CAFRI during 10-11 October, 2021



Hon'ble DDG (NRM) ICAR, Dr. S.K. Chaudhari visited CAFRI on 3-6 October, 2021 and guided the agroforestry research programme.

Hon'ble DDG (Crop Science), ICAR Dr TR Sharma visited CAFRI on 01 November, 2021 and interact with Scientists



Strategic Highlights

- MoUs signed
 - ✓ Arunachal University of Studies on 16 July, 2021.
 - ✓ FASAI Rama University, Kanpur on 12 October, 2021
 - ✓ Central Ayurveda Research Institute, Jhansi on 2 November, 2021
 - ✓ Central Agricultural University, Imphal on 1 December, 2021
 - ✓ ICFRE-TFRI to promote Agroforestry research, teaching, extension and training on 09 December, 2021



Strategic Outreach

- ICAR-CAFRI is organized a Training Program on Agroforestry for Forest Officers of Chhattisgarh Forest Department on 11th August, 2021
- ICAR-CAFRI organized a Hands-on Training on DNA isolation and PCR techniques in Plant Biotechnology for students during 3-5 December, 2021 (Dr. K. Rajarajan and Dr. H. Anuragi; Course Coordinators)
- Three days training programme on Krishivaniki Aadharit Naveen Taknikiyan for the farmers on 28-30 September, 2021.
- MGMG visit on 30.11.2021 Domagore, Dhikoli & Nayakhera, Jhansi district, UP
- MGMG visit on 21.12.2021 Ganeshgarh & Devgarh, Jhansi district U.P.



Days and Weeks Observed

- Independence Day on 15 August, 2021
- 16th Parthenium Awareness Week from 16th to 22nd August, 2021
- National Sports Day, ICAR-CAFRI jointly organized with RLBCAU and ICAR-IGFRI with event from 27th to 29th August, 2021
- Hindi Diwas 2021 on 14 September, 2021
- Rashtriya Ekta Divas on 31 October, 2021
- Children's Day and interaction with farmers at Ganeshgarh, Babina Block on 14 November, 2021

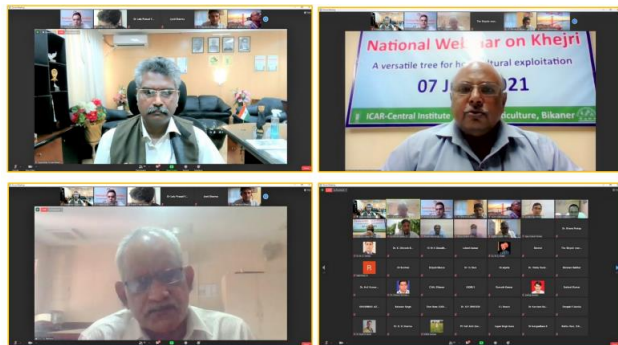


- Constitution Day and National Milk Day on 26 November, 2021
- National Agricultural Education Day on 3 December, 2021
- World Soil Day on 5 December, 2021
- Vigilance Awareness Week during 26 October, 2021



Events Organized

- Nation-wide tree plantation drive by ICAR-CAFRI on 16 July, 2021 under ‘Azadi Ka Amrut Mahotsav’ India @75, 9.54 lakh seedlings planted across India.
- National Webinar on *Khejri* through virtual platform zoom on 07 July, 2021
- Online Training Programme under Joint Biennial Work Plan of ICAR-ICFRE for Technical Staff of ICFRE during 26-28 July, 2021 on “New Approaches in Agroforestry and tree crop interactions” (Coordinators: A. K. Handa and Suresh Ramanan S)
- One day training on Agroforestry for Chhattisgarh State Forest Officers on 11 August, 2021 (Coordinator: R. P. Dwivedi)
- DIG, Jhansi Region Shri Joginder Kumar visited on 12 August, 2021 and planted sandal seedlings
- Campaign on Nutri-garden and Tree Plantation, on 17 September 2021
- Lecture series on Nutri-Sensitive Agriculture on 25 September, 2021
- Training Programme on “*Krishivaniki Aadharit Naveen Taknikiyani*” for the farmers of Bundelkhand region (28-30 September, 2021) in collaboration with the SIRJAN Society, Kanpur and NABARD (Course Director: Dr. A. Arunachalam and Dr. R P Dwivedi; Training Course Coordinators: Dr. Sushil Kumar and Dr. Priyanka Singh).
- ‘Waste to Wealth’ programme on 12 October, 2021
- Scientists-Students interaction meet on climate change, environment degradation and future challenges, in Government Inter College, Jhansi on occasion of National Education Day on 11 November 2021.
- Organized a constitution quiz on the Constitution Day on 26 November 2021
- Organized World Soil Day Celebrations on 5th December 2021 to create awareness about importance of the soil health in maintaining healthy ecosystem for resilience against climate change. The theme of the function was “Halt Salinization Boost Soil Productivity”.
- *Swachhta Pakhwada* on 16-31 December, 2021
- *Kishan Diwas* and Hindi Workshop on 23 December, 2021
- Final Report submission of 5th Quinquennial Review Team of CAFRI and AICRP and Agroforestry to Director General, ICAR through an online meeting 7 October, 2021
- A three-day training programme (14-16 December, 2021) on Agroforestry for 70 rural youth from Mandya and Tumkur Districts of Karnataka under FAO-India Office and National Rainfed Area Authority Technical Cooperation Project (TCP) in collaboration with coordinating centre of AICRP on Agroforestry located at UAS, Bangalore and Karnataka Sub Mission on Agroforestry.
- A virtual Consultation meeting of Extension Experts of Uttar Pradesh and Karnataka for developing an extension mechanism was organized by ICAR- Central Agroforestry Research Institute, Jhansi on 18 December, 2021.



New in Campus

- *Rashi Vatika* on 10 November, 2021
- *Navagraha Vatika* on 15 November 2021
- *Nakshatra Vatika* on 22 November 2021



New Research Projects

- DST Funded Task Force on Himalayan Agriculture (*Phase 2*), National Mission for Sustaining the Himalayan Ecosystem (NMSHE), (Sanction No. #DST/CCP/TF-6/Phase-2/ICAR/2021(G) dt. 04.10.2021; Total Budget Rs. 9,52,60,980/-for 5 years (2021-2026) – Dr. A. Arunachalam (Task Force Coordinator; Dr. A.K. Handa and Mr. Suresh Ramanan S as its CCPIs/CoPI)
- NABARD funded `Evaluating the performance of strawberry cultivation in Babina block of Jhansi district for crop diversification, and better economic returns at farmers' field' vide Sanction No. UPRO/FSPF-DPR/697-2021-22 dated 18-10-2021 (Rs. 24.84 lakhs) - - Dr. A. Arunachalam (Principal Investigator); Dr. Ashok Yadav and Dr. Sushil Kumar as its Co-Investigators)
- NABARD funded `Evaluating the performance of strawberry cultivation in Moth block of Jhansi district for crop diversification, and better economic returns at farmers' field' vide Sanction No. UPRO/FSPF-DPR/700-2021-22 dated 18-10-2021 (Rs. 24.88 lakhs) - Dr. A. Arunachalam (Principal Investigator); Dr. Ashok Yadav and Dr. Sushil Kumar as its Co-Investigators)
- ICAR-ICRAF Work Plan Project, `Pilot the solutions of chip-based technology for real-time and RFID-passive monitoring of field genebank and agroforestry species for scaling up' (Rs. 4.92 lakhs) – Dr. K. Rajarajan (Principal Investigator); Dr. H. Anuragi (Co-Investigator)

Research

***Moringa oleifera*, a potential multipurpose agroforestry tree species for Bundelkhand region**

Bundelkhand region of Central India faces the challenges of frequent drought accompanied with higher temperature which directly affects the agriculture, associated human nutrition and overall socio-economic development. Climate resilient crop like *Moringa oleifera* provides opportunity for such region as it seems to have great nutritional, therapeutic, industrial, agricultural, and socio-economic values. In this context, CAFRI has collected 30 *Moringa* germplasm with varied morphology, phenology, flower and fruiting behavior from Bundelkhand districts of Madhya Pradesh and Uttar Pradesh and established a field gene bank in its research farm. Their passport data and GPS locations were also recorded. Germplasms have been identified with early and prolonged flowering and fruiting behavior.

Authors:

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Author Metadata Matters in Digital Era

In digital era, every word is information.

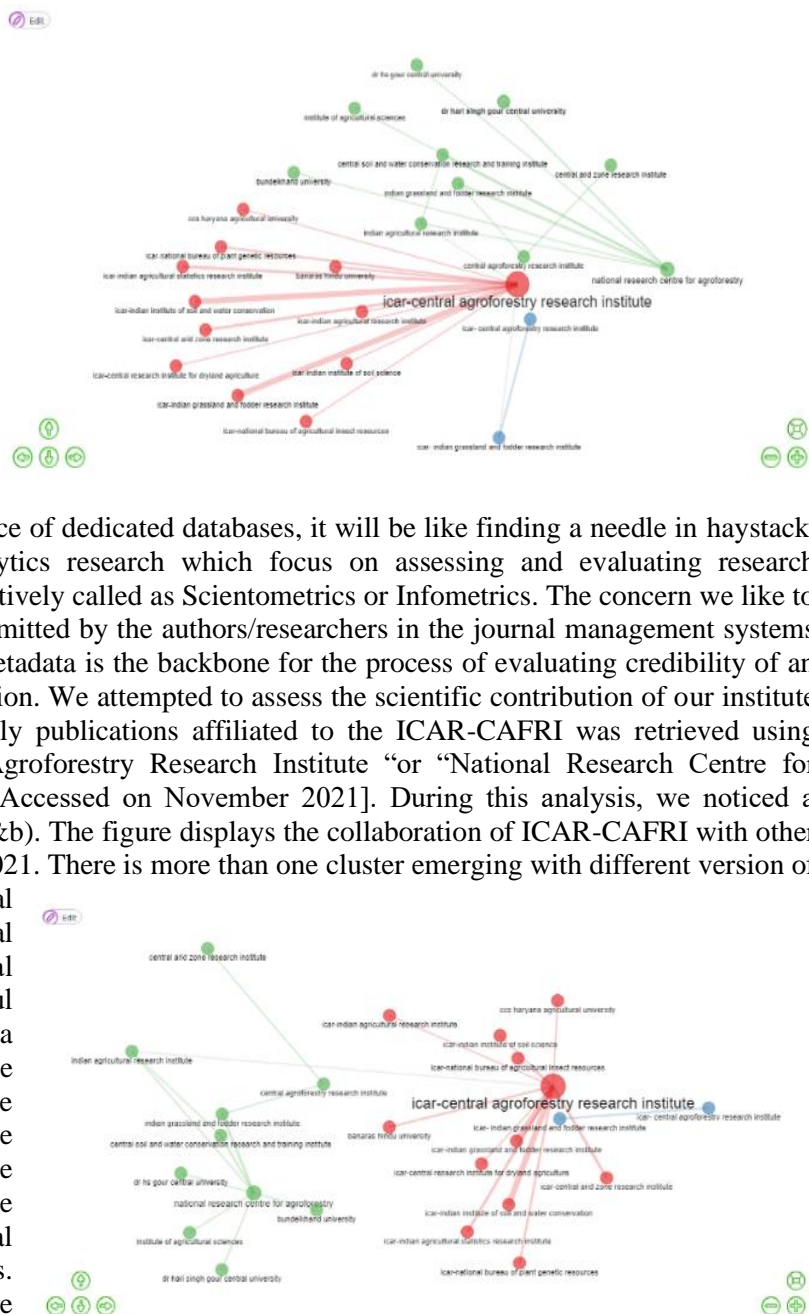
Researchers are bound to communicate or express their findings and opinions in the form of research papers and articles which are mostly digitally archived in the databases. The credibility of an individual researcher or a research organization is mainly evaluated based on the quantity and quality of publications, apart from the patents, copyrights, etc. The quantum of research publications in the last ten years has been enormous and it will be increasing in the upcoming years. Hence, tracking and accounting the scientific contribution of individual researchers or an organization will be tedious.

In the absence of dedicated databases, it will be like finding a needle in haystack. There is a dedicated theme of data analytics research which focus on assessing and evaluating research publications or scholarly publications, collectively called as Scientometrics or Infometrics. The concern we like to express here is regarding - the metadata submitted by the authors/researchers in the journal management systems or research management systems. As this metadata is the backbone for the process of evaluating credibility of an individual researcher or a research organization. We attempted to assess the scientific contribution of our institute through scientometric approach, so scholarly publications affiliated to the ICAR-CAFRI was retrieved using specific keyword string (“ICAR-Central Agroforestry Research Institute “or “National Research Centre for Agroforestry”) from the Scopus database [Accessed on November 2021]. During this analysis, we noticed a uniqueness which is depicted as figure 1 (a & b). The figure displays the collaboration of ICAR-CAFRI with other research institutes in 2001-2010 and 2011-2021. There is more than one cluster emerging with different version of our institute name i.e. ‘icar-central agroforestry research institute’, ‘icar- central agroforestry research institute’ and ‘central agroforestry research institute’. On careful observation, one can understand that even a character spacing after the hyphen (-) will be interpreted differently by the machine. As the databases like Scopus or Web of Science solely rely on the metadata submitted by the authors, there is need to be accurate in the metadata submitted to the journal management system or any other platforms. And we would like to bring this issue before our research fraternity.

Last year, our institute submitted a detailed proforma on research accomplishments to external agency and we had the opportunity to submit our research accomplishments. However, in the upcoming years, we might not have this luxury. Moreover, the implementation of ARMS in ICAR also aims at rapid assessment of research accomplishments through data analytics. In this context, the metadata becomes more crucial to assess our credibility on research efforts. This issue is also relevant for other research institutes and even individual researchers; as the automated assessment of research credibility is becoming the norm of the day.

Authors:

Suresh Ramanan S and A Arunachalam
ICAR-Central Agroforestry Research Institute



Participation in Training/Workshop/Meetings/Symposia

- Suresh Ramanan S participated on 1 July, 2021 *Azadi Ka Amrit Mahotsav*-One District One Focus Produce webinar on Banana processing and value addition organized by IIFPT, Thanjavur
- Suresh Ramanan S participated on 15 July, 2021 Policies for Agroecology event from the Agroecology Transformative Partnership Platform (TPP)
- Suresh Ramanan S participated on 16 July 2021 Webinar on Advances in Teak Cultivation: Genetic Resources and Technologies
- All CAFRI Scientists attended Webinar on Checking Plagiarism on 29 July 2021 organized by AKMU
- Dr. Hirdayesh Anuragi attended live event on “Status of Research on *Moringa oleifera*: Breeding, Genomics & Nutrition” organized by World Agroforestry (CIFOR-ICRAF) on 29th July 2021
- Dr Rajendra Prasad, Dr Ashok Shukla and Shri Prashant Singh attended online lecture on “Processing and Value Addition of Natural Resins & Gums” organised by IINRG Ranchi as part of India @75 Azadi ka Amrut Mahotsav on 3 August 2021.
- Suresh Ramanan S participated on Attended Online Training Programme on “Species Distribution Modelling” organized by NASA’s Applied Remote Sensing Training Program, August 12, 17 & 19, 2021
- Dr. A.K. Handa participated in the Vigilance Officers Meeting of ICAR during 16-18 August, 2021, organized by NAARM, Hyderabad
- Dr. Hirdayesh Anuragi attended live webinar on “Tools and Methods for CRISPR-Cas9 Functional Genomics and Precise Gene Editing” organized by Thermo Fisher Scientific on 19 August 2021.
- Suresh Ramanan S participated on Attended the National Stakeholder Consultation Workshop on Development of Roadmap for Institutional and Policy Mainstreaming of Sustainable Land and Ecosystem Management in India on 27 August 2021
- Suresh Ramanan S participated on Attended the Virtual National Level Stakeholder Consultation for a new global initiative of one CGIAR on Nexus Gains: Realizing Multiple Benefits across Water - Energy – Food – Forest – Biodiversity Systems on 8 September 2021.
- Dr. Hirdayesh Anuragi attended participated in SERB sponsored workshop on hands on online training on CRISPR/Cas9 mediated gene editing in plants organized by Department of Plant Science, University of Hyderabad during 3-10 October 2021.
- Dr. Priyanka Singh participated in the online Training Programme on Data Analysis in Social Sciences Research Organized by ICAR-NAARM, Hyderabad on 4-8 October 2021
- Suresh Ramanan S Participated on Attended Online Training programme on “Statistical Techniques for Data Analysis in Agriculture” on 4-13 October 2021 organized by ICAR-IASRI
- Dr. A. Arunachalam gave an Invited Lecture on Agroforestry for Sustainable Development in the Inter-disciplinary Refresher Course on Science and Technology on 29th September 2021; organized by Mizoram University-HRDC, Aizwal during 28th September to 11th October, 2021.
- Dr. A. Arunachalam gave an Invited Lecture on Methodologies and practices for climate change resilience in the 21-days online Scientific Training on Agricultural Research Methodologies, Practices and their Management; organized by Samagra Vikas Welfare Society and CAU, Pasighat, Arunachal Pradesh during 4-24 October 2021.
- Dr. Hirdayesh Anuragi participated in the International webinar on fighting the hunger using smart technology on 26 October 2021; organized by ICAR-IIOPR, Andhra Pradesh.
- Dr. Priyanka Singh virtually participated in 29th Annual Conference of Agricultural Economics Research Association, India on "Public Policies and Agricultural Transformation in India" (27-29 October, 2021).
- Dr. Hirdayesh Anuragi attended the online training workshop on "Analysis of Multi-Location Experiments” organized during 28th October to 1st November, 2021 by ICAR-NAARM.
- Dr. Rajendra Prasad, Dr Badre Alam, Dr A K Handa, Dr Ashok Sukla and Shri Prashant Singh attended online annual workshop of ICAR-Network Project on Harvesting, Processing and Value Addition of Natural

Resin and Gums organised by IINRG Ranch during 9-10 November 2021.

- Dr. Badre Alam participated in two days (online) 13th Annual workshop of *Network Project* on “*Harvesting, Processing and Value Addition of Natural Resins and Gums (NP-HPVA of NRGS)*” from 9 to 10 November, 2021 organized by ICAR-IINRG, Ranchi, Jharkhand.
- Dr. Asha Ram and Dr. Sushil Kumar participated in Fifth International Agronomy Congress on “*Agri Innovations to Combat Food and Nutrition Challenges*” organized by the Indian Society of Agronomy during 23-27 November 2021 at PJTSAU, Hyderabad, India.
- Two days hands on Training on DNA extraction and PCR techniques in Plant Biotechnology at ICAR-CAFRI, 3-5 December 2021 (Course Coordinator : Dr. K. Rajarajan and Dr. H. Anuragi)
- Dr Asha Ram attended “*Advanced Course (Asia & North Africa) on Conservation Agriculture: Gateway for Sustainable Intensification of Smallholder Systems*” organized by CIMMYT in collaboration with ICAR-CSSRI, Karnal and BISA, Ludhiana during 6-18 December, 2021 at ICAR-CSSRI, Karnal.
- Dr. Priyanka Singh participated in the online Training Programme on Statistical Designs and Analytical Methods for Multifactor Experiments organized by ICAR-CMFRI, Kochi during 8-17 December, 2021
- Dr. Hirdayesh Anuragi attended online training program on “*SNP Mining, GWAS and Genomic Selection*” held during 16-21 December 2021.
- Dr. A. Arunachalam gave an Invited Panel Lecture on ‘*Agroforestry and Humans*’ on 19 December, 2021; International Web-Conference on Emerging Sustainability Trends in Agricultural, Rural and Environmental Development; organized by Society of Biological Sciences and Rural Development, Prayagraj, Uttar Pradesh during 19-20 December, 2021
- Dr A K Handa participated in National Workshop on Bamboo organized by NITI Ayog, GoI on 30 December, 2021.

Publications

Institute Publications

- Ashajyothi, M., Venkatesh, Y.N., Rajarajan, K., Handa, A.K. and A. Arunachalam (2021) Plant Diseases in Agroforestry – A Ready Reckoner. Technical Bulletin CAFRI/2021/02, ICAR-Central Agroforestry Research Institute, Jhansi 284003, Uttar Pradesh, India; 42 p.
- Venkatesh YN, Ashajyothi M, Vishnu R, Handa AK and A Arunachalam (2021) Insect Pests in Agroforestry – A Ready Reckoner. Technical Bulletin CAFRI/2021/3, ICAR-Central Agroforestry Research Institute, Jhansi 284003, Uttar Pradesh, India; 34 p.
- CAFRI (2021). Report on the Nation-wide Tree Planting Campaign. ICAR-Central Agroforestry Research Institute, Jhansi; 22p.

Journal Articles

- Rawat, M., Arunachalam, K., Arunachalam, A., Alatalom J.M. and R. Pandey (2021) Assessment of leaf morphological, physiological, chemical and stoichiometry functional traits for understanding the functioning of Himalayan temperate forest ecosystem. *Scientific Reports (Nature)* 11:23807
- Inder Dev, Singh, R., Gar, K.K., Ram A., Singh, D., Kumar, N., Dhyani, S.K., Singh, A., Anantha, K.H., Akuraju, V., Dixit, S. Tewari, R.K., Dwivedi, R.P. and A. Arunachalam (2021) Transforming livestock productivity through watershed interventions: A case study of Parasai-Sindh watershed in Budelkhand region of Central India. *Agricultural Systems*. 196: 103346 (<https://doi.org/10.1016/j.agsy.2021.103346>)
- Arunachalam, A. and S.S. Ramanan (2021) Agroforestry based land-use model for sustainable farming. *Indian Journal of Agronomy* 66 (5th IAC Special Issue): S101-S110
- Parmar, M.R., Arunachalam, A., Jha, S.K., Tandel, M.B., and S.M. Patel (2021) Variations in soil texture of different horticulture-based agroforestry systems in South Gujarat. *The Pharma Innovation* 10(5): 87-90.
- Arunachalam, A., Ramanan, S.S. and A.K. Handa (2021) Administering agroforestry at the district level. *Current Science* 121(4): 473-474

- Prasad, M.E., Kumar, N., Arunachalam, A., Rawat, B. and P. Gautam (2021) Millets of cold semi-arid regions: Vital facts in starch content and composition. *International Journal of Current Research and Review* 13(11): 92-98
- Upadhyaya, K., Ram, A., Dev, I, Kumar, N., Upadhyaya, S., Gautam, K. and A. Arunachalam (2021) Above- and below-ground interactions in teak-barley agroforestry system in the Bundelkhand region of Central India. *Indian Journal of Agroforestry* 23(1): 41-47.
- Prasad, R., Handa, A.K., Alam, B., Arunachalam, A., Shukla, A., Singh, P. and N. Prasad (2021) Influence of planting geometry of 8-year-old gum-yielding trees on soil chemical properties in the Bundelkhand region. *Indian Journal of Agroforestry* 23(1): 33-40.
- Singh, N.R., Kumar, D., Handa, D., Newaj, N., Prasad, M., Kamini, Kumar, N., Ram, A., Dev, I., Bhatt, B.P., Chaturvedi, O.P., Arunachalam, A. and L.N. Singh (2021) Land use effect on soil organic carbon stocks, microbial biomass and basal respiration in Bundelkhand region of Central India. *Agricultural Research* (<https://doi.org/10.1007/s400003-021-00584-6>)
- Sharma, S., Arunachalam, K. and A. Arunachalam (2021) Ecophysiological responses of *Perilla frutescens* (Linn.) Britt from the Indian Himalayan Region. *Plant Physiology Reports* 26(2): 329-342
- Rawat, M., Arunachalam, K. and A. Arunachalam (2021) Seasonal dynamics in soil microbial biomass C, N and P in a temperate forest ecosystem of Uttarakhand, India. *Tropical Ecology* 62: 377-385 (<https://doi.org/10.1007/s42965-021-00153-6>)
- Anuragi, H., Yadav, R. and Sheoran, R. (2021). Gamma-rays and EMS induced resistance to mungbean yellow mosaic India virus in mungbean [*Vigna radiata* (L.) R. Wilczek] and its validation using linked molecular markers. *International Journal of Radiation Biology*, 98:69-81
- Kumar, N., Anuragi, H., Rana, M., Priyadarshini, P., Singhal, R., Chand, S. and Ahmed, S. (2021). Elucidating morpho-anatomical, physio-biochemical and molecular mechanism imparting salinity tolerance in oats (*Avena sativa*). *Plant Breeding*, 140(5), 835-850.
- R. H. Rizvi, R. Vishnu, A. K. Handa, S. Suresh Ramanan, M. Yadav, A. Mehdi, R. K. Singh, S. Londhe, S. K. Dhyani, J. Rizvi, Punam, Rameshwar Kumar, Naved Qaisar. 2021. Mapping of agroforestry systems and *Salix* species in Western Himalaya agroclimatic zone of India, *Current Science*, 121 (10): 1347-1351.

Books, Chapters and Technical Bulletins

- Bordoloi, P., Arunachalam, A., K. Arunachalam and N.D. Singh (2021) Agricultural land use systems and its characteristics followed by the Nyishis of Papum Pare district of Arunachal Pradesh. p. 17-22. In (Rao, R.K., ed.) *Recent Advances in Agriculture, Engineering and Biotechnology for Food Security*, Mahima research Foundation and Social Welfare, Varanasi (ISBN: 978-81-953029-4-9)
- Kumar, V., Hidangmayum, A., Singh, A., Sodani, R., Dadrwal, B. K., Kumar, N., Anuragi, H. & Singhal, R. K. (2021). Physiological, Biochemical, and Molecular Mechanisms of Gasotransmitter-Mediated Heavy Metal Stress Tolerance in Plants. *In Heavy Metal Toxicity in Plants: Physiological and Molecular Adaptations* (pp. 127-138). 6000 Broken Sound Parkway NW, Suite 300, Boca Raton, FL 33487-2742: CRC Press.

Blog

Trees for the SDGs: Woody perennials building resilience in urban and rural landscapes – THE GFAR BLOG (<https://blog.gfar.net/2021/11/12/trees-for-the-sdgs-woody-perennials-building-resilience-in-urban-and-rural-landscapes/>) – Written by A. Arunachalam and Suresh Ramanan S.

Book Review

Ramanan, S.S. and A. Arunachalam (2021) A look over on the scented tree of India (*Santalum album*). *Journal of Threatened Taxa* 13(12): 19884-19886 (<https://doi.org/10.11609/jott.7614.13.13.19884-19886>)

Popular Articles

- Kumar, S., Dev, R., Yadav, A., Pramendra, Taria, S., Anuragi, H., Ram, A., & Dev, I (2021). Invasive weed

Prosopis juliflora coal A source of income to Banni inhabitants of Kachchh. Agriculture and Environment e-Newsletter, 2(7):37-40.

- आशाराम, इन्द्र देव, रमाकान्त तिवारी, गिरिजा चौधरी, ए. के. हाण्डा और ए. अरुणाचलम। (2021) पर्यावरण एवं जल संरक्षण के लिए कृषिवानिकी खेती (नवम्बर, 2021): 55–57
- ए. अरुणाचलम, लतिका पाण्डेय एवं एम.एस. रघुवंशी ;2021द्व भारतीय कृषि के एभरते हुए प्रौद्योगिकीय समाधान। राष्ट्रीय कृषि 16 (2द्व
- आशाराम, इन्द्रदेव, गिरिजा चौधरी, नरेश कुमार, ए. अरुणाचलम, सुशील कुमार एवं जगदीश कुमार 2021ण बदलती जलवायु में कृषि वानिकी का महत्व, खेती, जून 2021. भारतीय कृषि अनुसंधान परिषद् द्वारा प्रकाशित, पृष्ठ 7.8.
- जगदीश पाटीदार, बरखा शर्मा, आनन्द कुमा, रमेश सिंह, आशाराम, लाल चन्द, नरेश कुमार, इन्द्रदेव और रमाकान्त तिवारी 2021. सब्जियों की पौधशाला का उचित प्रबंधन, फल-फूल, जुलाई-अगस्त 2021. भारतीय कृषि अनुसंधान परिषद् द्वारा प्रकाशित, पृष्ठ 46–49.

Awards/Recognition

- Dr. A. Arunachalam felicitated with the Scientific Tamil Excellency Award 2021 of the Agricultural Scientific Tamil Society (SciTSA), New Delhi; Prominent Alumnus Award 2021 by Ayya Nadar Janaki Ammal College Alumni Association, Sivakasi and Excellence Service Award 2021 during the International Scientist Awards on Engineering, Science and Medicine on 7-8 August, 2021 in Pondicherry by VDGGOOD Professional Association.
- Dr. A. Arunachalam notified as the Chairman of the Task Force on Agroforestry-II by NITI Ayog, Govt. of India
- Dr. A. Arunachalam notified as the Coordinator of the Task Force on Himalayan Agriculture under the NMSHE Program of DST, Govt. of India
- Dr. A. Arunachalam was a Member of the National Advisory Committee, International Web Conference on Emerging Sustainability Trends in Agriculture, Rural an Environmental Development during 19-20 December, 2021; organized by Society of Biological Sciences and Rural Development, Prayagraj (UP)
- Dr. A. Arunachalam was a Member of the National Steering Committee, and Convener of Technical Session Programme Committee, 5th International Agronomy Congress, 23-27 November 2021; organized by the Indian Society of Agronomy, New Delhi in PJTSAU, Hyderabad.
- Dr. A. Arunachalam was notified as the Chief Editor of Indian Journal of Agroforestry by the Indian Society of Agroforestry, Jhansi

Personnel

Promotion

Mr. Hoob Lal as Private Secretary on 01.07.2021
Mr. Deepak Vij as Personal Assistant on 01.07.2021
Mr. Om Prakash as Private Secretary on 05.07.2021
Mr. Tridev Chaturvedi as Personal Assistant on 05.07.2021

On Study Leave

Mrs. Alka Bharti, Plant Biotechnology
Mr. Venkatesh Y N, Agricultural Entomology
Mrs. Ashajothi, Plant Pathology

New Scientist

Dr. Sovan Debnath, Scientist (Soil Science) joined on 07.10.2021

Departure

Dr. R Vishnu to Kerala Agricultural University, Thrissur, Kerala

Retirement

Mr. J L Sharma, Senior Administrative Officer
Mr. Veer Singh Pal, Assistant



Supervision and Guidance:

Dr. A. Arunachalam, Director

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