

Spices News

JANUARY - JUNE 2024



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Research Updates:

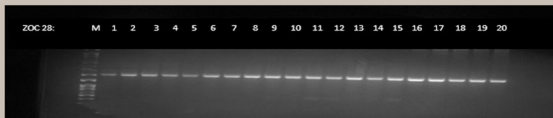
Genetic stability of in vitro induced micro rhizomes

Contributor: Dr. Sharon Aravind

The genetic fidelity analysis (SSR and ISSR markers) of in vitro induced micro rhizomes of ginger variety IISR Varada with its mother plant, various stages of subcultures (5-8) and subsequent generations (V1 and V2) revealed mono-morphic nature and true-to-type status of micro rhizome derived plants under in vitro as well as in field conditions. A total of 343 bands were produced, with sizes ranging from 100-3100 bp. High degree of genetic uniformity was obtained by employing marker analysis, indicating that the same genomic stability is maintained in field plants as well as in micro propagated plants, micro rhizomes, and their next two generations. Additionally, soma clonal variation was absent in different stages of subculture, indicating homogeneity of regenerants produced by micro propagation techniques.

SSR banding profile of ginger variety IISR Varada using primer ZOC 28

Contributor: Dr. Sharon Aravind



Research updates

M- 100 bp DNA ladder, 1- Mother plant, 2-fifth in vitro subculture, 3- sixth in vitro subculture, 4- seventh in vitro subculture, 5- eighth in vitro subcultures, 6 to 10- V1 generation, 11 to 15- V2 generation, 16 to 20- Micro rhizome leaf sample.

Development of reverse transcriptase-recombinase polymerase amplification (RT-RPA) assay for rapid detection of large cardamom chirke virus

Contributor: Dr. A Ishwara Bhat

Large cardamom chirke virus (LCCV) causing chirke disease of large cardamom is a major production constraint of this crop. Rapid and accurate detection of LCCV is important for managing the disease. In the present study an isothermal assay namely, reverse transcriptase-recombinase polymerase amplification (RT-RPA) was developed for the detection of LCCV. Total RNA isolated by two different methods and crude extracts isolated using five different methods as templates were assessed for their ability to detect LCCV. Of these, only the total RNA isolated by both methods gave consistent and repeatable results while all the crude extracts used as templates gave non-specific amplification. RT-RPA was up to 1000 times more sensitive than conventional RT-PCR for the detection of LCCV. The detection limit of RPA was 10 fg when recombinant plasmid was used as the template. The RT-RPA assay was validated using field samples and found suitable for large-scale screening of large cardamom plants against LCCV for the selection of virus-free plants.

Data Analysis and Visualization toolkit

Contributor: Dr. Sona Charles, Dr. TE Sheeja

With the surge in high-throughput sequencing data, effective tools for data analysis and visualization are critical to derive meaningful insights from complex datasets. We present an R Shiny-based data analysis and visualization toolkit specifically designed for comprehensive analysis of count data from Next-Generation Sequencing (NGS) experiments. This toolkit integrates a user-friendly interface with powerful statistical and graphical modules, streamlining the workflow across multiple domains. The toolkit includes essential modules that perform fundamental analyses and visualize data, helping users interpret their data intuitively.

ICAR- Technologies

Following technologies have been recognized by ICAR

Technology	Inventor
<i>Process for instant soluble turmeric enriched spices flavoured dairy milk powder 2024</i>	<i>E. Jayashree, Anees K. Rajeev P, Radha E. and Thankamani C. K</i>
<i>Process for the production of Nutmeg rind syrup 2024</i>	<i>E. Jayashree, Alfiya P V, Anees K, C. Sarathambal and B. Vishnu</i>

Research updates

Memorandum of Understanding (MoU)

- ICAR-IISR signed MoU with ICAR-Central Tuber Crops Research Institute, Trivandrum for collaboration and technology dissemination by manufacturing and marketing of biocapsules for tuber crops.
- An MoU was signed with Meghalaya Farmers Empowerment Commission for rural development.

Outreach Activities

Training programmes

- One day skill development programme on 'Value addition of spices' in collaboration with ABI- KAU, Thrissur for women entrepreneurs as part of Pradhan Mantri Formalization of Micro Food Enterprises (PMFME) scheme funded by Ministry of Food Processing Industries, Govt. on 3-1-2024. (Participants: 4)
- One day hands on training on 'Processing and value addition of Spices' at ICAR-IISR for farmers funded by Department of Agriculture, Kozhikode, Govt. of Kerala, Indian Institute of Spices Research, Kozhikode on 23-1-2023. (Participants: 31)
- Five days training programme on 'Entrepreneurship Development Program on 'Advances in Processing and Value addition in Spices' sponsored by Govt. of Assam held during 12- 16 Feb, 2024. (Participants: 14)
- Training program on 'Production and value addition of Spices' for entrepreneur cum farmers from Maharashtra during 19-23 February 2024. (Participants: 17)
- Three days District level seminar on 'Spice Processing and Entrepreneurship Development' sponsored by Mission for Development in Horticulture (MIDH) at ICAR-IISR, Kozhikode, during 5-7 March 2024. (Participants: 124)
- One day training programme on 'Spice Processing and Value addition' for farmers from Tanur, Malappuram District, Sponsored by Department of Agriculture, Govt. of Kerala on 14-03-2024. (Participants: 20)
- ICAR-IISR organized a collaborative online training program along with MANAGE on 'Innovations in Production, Value Addition and Marketing of Spices in India' from 10-14 June 2024
- MIDH Farmers training programme on Good Agricultural practices in black pepper and cardamom on 09 January 2024 at Indian Cardamom Research Institute, Myladumpara, Idukki, Kerala. (Participants: 126)
- MIDH Farmers training programme on "Good agriculture practices in ginger and turmeric" on 15 March 2024 at ICAR- CTRI Research Station, Hunsur, Karnataka. (Participants: 118)

Exhibitions

- Malayala Manorama Karshakashree Mela at Kottakkunnu Maidanam, Malappuram, from 31st January to 4th February 2024.
- Regional Agricultural Fair (RAF) North Zone during the International Seminar on Exotic and Underutilized Horticultural Crops (ISEUHC 2023), hosted by ICAR-Indian Institute of Horticultural Research, from 3rd to 5th February 2024.
- RAF in Varanasi and the National Horticultural Fair (NHF) at ICAR-Indian Institute of Horticultural Research, Hesaraghatta, Bangalore, both from 3rd to 5th February 2024.
- UDAYAM 2024 – Women's Entrepreneurship Meet and Agricultural Expo from 22nd to 25th March 2024. The

Outreach Activities

event featured 60 exhibition stalls by women entrepreneurs showcasing their innovations and products.

- National Horticulture Fair from 5th to 7th March 2024 at ICAR-Indian Institute of Horticultural Research, Hesarghatta, Bangalore.
- Exhibition as part of the International Seminar on Spices 2024, organized by Kerala Agricultural University, Vellayani, Trivandrum during 5th to 7th June 2024.

Lectures Delivered

- Dr. E Jayashree delivered a lead talk on 'Emerging Postharvest Technologies for Shelf life Enhancement of Spices' on 4 Jan 2024 during the International Conference on "Emerging Postharvest Technologies for Shelf life Enhancement and Valorization of Horticultural Crops" (ICPHTV'24) held at TNAU, Coimbatore during 4-5 Jan 2024.
- Dr. E Jayashree delivered a lead lecture on 'Post Harvest processing, Value addition and entrepreneurship development in spices' during the National Seminar on "Food Byproduct Valorization- A healthy and sustainable approach" The seminar is organized by the Department of Food Technology at Safi Institute of Advanced Study, Vazhayoor in collaboration with the Kerala State Council for Science, Technology, and Environment (KSCSTE) on 11 Jan 2024 at Kozhikode.
- Dr. E Jayashree delivered lecture on 'Value Addition of Spices Crops' during the Online Training for Master Trainers on Spices and Plantation Crops Processing organized by National Institute of Food Technology, Entrepreneurship and Management - Thanjavur (NIFTEM-T) on 9-2-2024.
- Dr. E Jayashree delivered a lecture on 'Spice Processing and Value Addition' during the Webinar on Harnessing Traditional Knowledge and Emerging Food Processing Technologies for Viksit Bharat organized by National Institute of Food Technology, Entrepreneurship and Management - Thanjavur (NIFTEM-T) on 20-03-2024.
- Dr. E Jayashree delivered a lecture on 'Processing, grading and marketing of Nutmeg' for the farmers of Thiruvampady Swasraya Karshaka Samithi at Pullurampara under VFPC on 24.6.24. (32 people attended)
- Dr. C. N. Biju delivered a talk on "Rejuvenation of spice cultivation - Strategic roadmap for enhancement of pepper and ginger cultivation" at Regional Agricultural Research Station, Ambalavayal, Wayanad on 08.01.2024 in connection with Pooppoli 2024.
- Dr. C. N. Biju delivered talk on "Integrated pest and disease management in spices" during Farmers training programme on Advances in production technology of major spice crops of Kerala under NHM on spices and aromatic plants under MIDH in KAU at Agricultural Research Station, Anakkayam, Malappuram on 28.02.2024.
- Dr. C. N. Biju delivered talk on "Integrated pest and disease management in ginger and turmeric" during Training programme on "Cultivation of turmeric and ginger to progressive farmers of FLD" organized by Collectives for Integrated Livelihood Initiatives (Clni), N. M. Sadguru Water and Development Foundation and TATA Trust at Chosala, Dahod, Gujarat on 24.05.2024.
- Dr. C. N. Biju delivered talk on "Integrated pest and disease management in ginger and turmeric" during Training programme on "Improvement of spice value chains" organized by Centre for Microfinance and TATA Trust at Kherwara, Udaipur, Rajasthan on 26.05.2024.
- Dr. Maneesha S R delivered a talk on കുറുമുളക് കൃഷിയിലൂടെ പുതിയ കാർഷിക സാങ്കേതിക വിദ്യകൾ at Kuttiyadi Mekhala Marketing Sahakarana Sangham, Green Valley Park, Kuttiyadi on 1.02.2024.
- Dr K Kandiannan delivered talk on Irrigation and fertilizer management in spice crops during the Farmers' training on Hitech cultivation of spice crops on 5th February 2024 at Annamalai block, Coimbatore.
- Dr. Shamsudheen. M delivered a lecture on "Management of soil, water and nutrients in cashew" in the 5 days training programme on cashew production and processing technologies" under TSP programme by ICAR-DCR,

Outreach Activities

Puttur on 12-02-2024

- Dr. Shamsudheen. M delivered a lecture on nutrient management in ginger and turmeric during the training was organised at N.M. Sadguru Water and Development Foudation, Chosala, Dahod, Gujarat on 24-05-2024.
- Dr. Shamsudheen. M delivered a lecture on nutrient management in ginger and turmeric during the training programme on improvement of spice value chains in association with Centre for Microfinance, Udaipur, Rajasthan sponsored by the Tata Trust at Kherwara, Rajasthan on 26-05-2024.
- Dr. Sharon Aravind delivered a lecture on Improved production technologies in ginger and turmeric in Farmer's seminar organized by Kuttiyadi Mekhala Agriculture marketing Sahakarana Sangam on 01 February 2024.
- Dr. Akshitha H J delivered a lecture on Processing of spices in a Training program on "Promoting Spices Crop Cultivation and Business Opportunities" under AC&ABC Scheme at ICAR-IIHR on 23.01.2024.
- Dr. Akshitha H J delivered a lecture on Production technology of black pepper in Horticulture Fair at ICAR-CPCRI RS, Kidu on 28.02.2024

Capacity Building Programs attended by staff

Name	Name of Training Program	Organized by	Duration
Dr. Shamsudheen. M	Online short course on patents in agriculture titled Agrlp	Jointly organized. by the Intellectual property & Technology Management (IP&TM) Unit, ICAR. New Delhi. and the Zonal Technology Management unit, ICAR-CIFT, Kochi, Kerala	15 January to 5 February 2024
Dr. Shamsudheen. M	E-Learning Course on ISO IEC 17025:2017 – General requirements for the competence of Testing and calibration laboratories (Laboratory System & internal audit)	Training and Capacity Building Cell, Quality Council of India	13 March 2024
Dr. Shamsudheen. M	ITU FAO workshop on Cultivating tomorrow: Advancing digital agriculture through IoT and AI and workshop on Digital Agriculture at NASC, New Delhi	Jointly organized by ICAR along with Department of Telecommunication (DoT)	March 18-20, 2024

Participation in Symposia/Seminars/Workshops/Conferences/Meetings

- Dr. E Jayashree attended the online meeting for curriculum development of the course Food Technology, Saintgits College of Engineering, Kottayam on 12 Jan 2024.
- Dr. E Jayashree as external member attended the online meeting of Kalpa Rapid Incubation for Small & Startup Agribusiness Prospects (KRISP) for evaluating the proposal under incubation programme KRISP 1.0 organized by ABI, ICAR-CPCRI Kasaragod on 14-2-2024.
- Dr. C. N. Biju attended the National Conference on Plant Health for Food Security: Threats and Promises held at ICAR-Indian Institute of Sugarcane Research, Lucknow, Uttar Pradesh during 01 to 03 February 2024.
- Dr. A Ishwara Bhat attended the National Conference on "Plant Health for Food Security: Threats and Promises held at ICAR-Indian Institute of Sugarcane Research, Lucknow, 1-3 February 2024.
- Dr. A Ishwara Bhat attended Wayanad Seed Festival and Chaired the Seminar on 'Sustainable Spices Production

Outreach Activities

& Management in the Changing Climate; Newer trends and Innovations in Spice value addition' held at CABQ MSSRF from 1st to 2nd March 2024

- Dr. A Ishwara Bhat attended International seminar on "Spices: Innovative and green technologies for sustainability, organized by College of Agriculture, Vellayani, Thiruvananthapuram from June 5-7, 2024
- Organized 8th Dr. Y R Sarma Memorial Lecture at ICAR-IISR on 20th June 2024
- Dr. K Kandianan attended the 18th MIDH Annual Review Meeting at Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Shalimar, Srinagar, Sponsored by Directorate of Arecanut and Spices Development, Calicut during 10-11 June 2024
- Dr. C Sellaperumal attended a webinar on emerging preparedness for unexpected food safety challenges organized by ICAR-Central Institute Fisheries Technology, on 7th June, 2024.
- Dr. Akshitha H J attended the 3rd Indian Horticulture Summit cum International conference – 2024 organized by Society for Horticulture Research and Development during 1.02.2024 – 03.02.2024

Representation in external committees

- Dr. E Jayashree was deputed as External Research Advisor to the Divisional Research Committee (DRC) meeting of Engineering Section at ICAR-Central Institute of Fisheries Research, Kochi on 6 June 2024.
- Dr. A Ishwara Bhat attended Research advisory committee meeting of ICAR-Indian Institute of Oil palm Research (ICAR-IIOPR), at Pedavegi, Andhra Pradesh on 6th March 2024.
- Dr. A Ishwara Bhat attended Monitoring Committee meeting of Science and Engineering Research Board (SERB) held at BHU, Varanasi on 14th March 2024.
- Dr. A Ishwara Bhat attended Meeting with Pesticides Manufacturers Association, Spices Board, and ICAR-IISR on label claim expansion for pesticides held at ICAR-IISR on 2nd April 2024
- Dr. K Kandianan attended the Central Committee constituted by Dept of Agriculture, Cooperation and Farmers Welfare Krishi Bhavan, New Delhi to assess the Horticulture potential of the State of Jharkhand.
- Alfiya P V is nominated as a member, Board of Studies for Food Technology, University of Calicut during the year 2024 – 25.

Awards/ Honours/ Recognitions

Awardee	Work	Program
Alfiya P V - Certificate of Design Registration	Invention entitled 'Solar Gasifier Hybrid Dryer' (Design no.: 402040-001).	
Greeshma, M. and Bhat, A I. - Best Poster Award	Development of recombinase polymerase amplification combined with lateral flow strips for rapid detection of cardamom mosaic virus infecting cardamom.	National Conference on 'Plant Health for Food Security: Threats and Promises held at ICAR-Indian Institute of Sugarcane Research, Lucknow, 1-3 February 2024

Institute Technology Management Unit

During the period nineteen licenses were issued for various technologies developed by ICAR-IISR.

- One patent was filed, two designs filed for registration, four Trademarks applications filed and three copyright applications and three varieties were filed for PPV& FRA registration.
- MoU signed with ICAR-Central Tuber Crips Research Institute, Trivandrum for collaboration and technology dissemination by manufacturing and marketing of bio capsules for tuber crops, for rural development with Meghalaya Farmers Empowerment Commission, marketing of agri inputs developed by ICAR IISR with Spices Board Idukki.
- Facilitated the consultancy visit of IISR scientist to black pepper plantations of TATA coffee Ltd, Karnataka and New Ambadi Estates, Kanyakumari, Tamil Nadu.
- Conducted three Techno Commercial Assessment Committee (TCAC) meeting with Agrinnovate for evaluation of technologies developed at ICAR-IISR.

Commercialization of Technologies:

SL No.	Name of Technology/ Know-How	Name of Contracting Party	Date of Licensing
1.	A novel method of storing and delivering PGPR Microbes Through biocapsules	SRT Agro Science Pvt Ltd, Durg Chhattisgarh.	17-01-2024
2.	A novel method of storing and delivering PGPR Microbes Through biocapsules	Kodagu Agritech Pvt Ltd, Mysore Karnataka	17-01-2024
3.	A novel method of storing and delivering PGPR Microbes Through biocapsules	Bannari Amman Sugars Ltd Coimbatore, Tamil Nadu	17-01-2024
4.	Black pepper- IISR Chandra	Thuppalanjyil Nursery, Vayattuparamba, Kanner, Kerala	17-01-2024
5.	Black pepper- IISR Chandra	Ellickal Plantation, Kozhikode, Kerala	17-01-2024
6.	Nutmeg based value Nutmeg based value added products (4 Nov)	Koodaranthi Agro Enterprises, Kozhikode, Kerala	17-01-2024
7.	Ginger IISR Vradra	Mrs. Thabeera K. Pattomackal House Meppayur, Kozhikode	04-03-2024
8.	Turmeric IISR Pragati	Manglaman Turmeric and Agro Services, Wardha, Maharashtra	11-03-2024
9.	Cinnamon IISR Navashree	Agri Life Spices & Plants, Bhabnipur, West Bengal	19-03-2024
10.	Nutmeg based value added products (5 Nov)	Aldina Homemade, Mulkam Kozhikode, Kerala	22-03-2024
11.	Cardamom Appangala 1	ICAR Krishi Vigyan Kendra (ICAR KVK), Bapooji Sevak Samaj, Idukki, Kerala	10-07-2024
12.	A micronutrient composition for cardamom and a process for its preparation	ICAR Krishi Vigyan Kendra (ICAR KVK), Bapooji Sevak Samaj, Idukki, Kerala	10-07-2024
13.	Turmeric IISR Pragati	Kapileswar Agro & Biotech Services Pvt Ltd, Odisha	14-03-2024
14.	Ginger IISR Mahima	Kapileswar Agro & Biotech Services Pvt Ltd, Odisha	14-03-2024
15.	Black Pepper IISR Chandra	Sithosh Kunnumpanuth Thomas, K1 06, Idukki,	30-01-2024
16.	Turmeric IISR Prathibha	Plants R Gods, Thiruvallur, Chennai, Tamil Nadu	28-05-2024
17.	Black pepper IISR Thevam	Mrs. Leela, Kasargod, Kerala	20-06-2024
18.	A novel method of storing and delivering PGPR Microbes Through biocapsules	Indian Farmer Fertilizer Cooperative Ltd, IFFCO, Gandhinagar, Gujarat	13-05-2024
19.	A micronutrient composition for ginger and a process for its preparation for soil pH above 7	Ecophytocare Indian Pvt Ltd Mysore, Karnataka	30-05-2024

Institute Technology Management Unit

Management of IP Portfolios

IPRs	Application/ Registration No.	Name of Innovation/ Technology/ Product/ Plant Variety	Date of application Filed/ submitted	Date of Application Granted/ Registered**
Patent	202411070878	A jaggery-based product and a process for preparing the same	19-09-2024	Filed
Trademarks	6303940, 6303941 (Class 41 & 42)	Impower-Incubation facility for Women Entrepreneurship & Development	15-02-2024	Filed
Copyrights	1.SW-19375 2024	Site Specific Nutrient Recommendation for Spices (Spice Fert)	27-08-2024	Granted
	2. 29356 2024- CO SW	Black pepper Drought Transcriptome database	20-09-2024	Filed
	3. 31684 2024- CO SW	"CloveSSRDB: Database of SSR Markers in Clove (Syzygium aromaticum)	14-10-2024	Filed
Design	1.420100-001	Hot air assisted Infrared dryer for spices	14-06-2024	Granted
	2. 420101-001.	Vacuum impregnation Unit	14-06-2024	Filed
Plant Variety	1.REG-2024-0024	1.Black pepper Variety- IISR CHANDRA	23-01-2024	Filed
	2. REG-2024-0385	2.Ginger Variety IISR VAJRA	12-07-2024	Filed
	3.	3. Small Cardamom variety APPANAGALA 2	01-11-2024	Filed

Agri Business Incubator

- Organized an entrepreneurship awareness program for women entrepreneurs at the institute. Fourteen prospective entrepreneurs participated in the program and visited various ABI facilities.
- Organized a one-day orientation session on the activities of the Agribusiness Incubator at IISR for final-year students from the College of Agriculture, Ambalavayal, Wayanad, on 12th March 2024.
- Convened online discussions with Agri-Business Incubator, ICAR-CPCRI, and Kerala Startup Mission to collaborate on conducting the Agribusiness Incubation Centre Program in association with IP&TM Unit, ICAR, New Delhi.
- Organized a two-day bootcamp cum orientation program for selected incubatees at Kerala Startup Mission, Kochi, from 6th to 7th March 2024, with 14 incubatees participating.
- Hosted UDAYAM 2024 – Women's Entrepreneurship Meet and Agricultural Expo from 22nd to 25th March 2024. The event featured 60 exhibition stalls by women entrepreneurs showcasing their innovations and products.
- Assisted with brand development for new products from incubatees, including M/s Infant Leaves, M/s Anemone

Institute Technology Management Unit

Naturals, M/s Maruti Enterprises, Suman Research & Rehabilitation Centre, and Vegan Mushrooms.

- Organized a series of online awareness sessions covering various aspects of entrepreneurship, technology commercialization, and incubation services, conducted in March 2024.
- Organized an online program where Mr. Baiju Nedumkery (Chairman, Agropark, Piravom) delivered a session on agro-processing, agribusiness ventures, and opportunities in transforming agricultural inputs into high-value products. More than 200 entrepreneurs participated.
- Organized an Entrepreneurship Development Program on value addition in mushrooms from 29th to 30th May 2024. The live demonstrative program developed 10 value-added products from mushrooms. One participant, Ms. Prajina, started her mushroom-based pickle manufacturing venture.
- Organized a 5-day collaborative online training program with the National Institute of Agricultural Extension Management (MANAGE), Hyderabad, on innovations in the production, value addition, and marketing of spices in India, from 10th to 14th June 2024.
- Organized a webinar on FSSAI licensing regulations and essentials of packaging and labeling for agri-food tech entrepreneurs on 19th June 2024.

Hindi Anubhag

हिंदी अनुभाग

राजभाषा कार्यान्वयन समिति की बैठक

जनवरी-जून 2024 की अवधि में राजभाषा कार्यान्वयन समिति की दो बैठकें आयोजित की गयी। बैठकें दिनांक 11 मार्च 2024 तथा 24 मई 2024 को निदेशक डॉ. आर. दिनेश की अध्यक्षता में संपन्न हुई। समिति ने राजभाषा कार्यान्वयन की गतिविधियों की समीक्षा करके सुधारने के लिए सुझाव दिया।

हिंदी कार्यशाला

जनवरी-जून 2024 की अवधि में भाकृअनुप-भारतीय मसाला फसल अनुसंधान संस्थान, कोषिकोड, प्रायोगिक प्रक्षेत्र एवं कृषि विज्ञान केंद्र, पेरुवण्णामुषि के अधिकारियों तथा कर्मचारियों के लिए दो कार्यशालाएं आयोजित की गयीं।

पहली कार्यशाला 16 फरवरी, 2024 को आईआईएसआर कृषि विज्ञान केंद्र में आयोजित की। प्रस्तुत कार्यशाला में श्रीमती एन. प्रसन्नकुमारी, सहायक मुख्य तकनीकी अधिकारी, आईसीएआर-आईआईएसआर, कोषिकोड ने “राजभाषा नीति एवं कार्यान्वयन -आगे बढ़ें” विषय पर व्याख्यान दिया।

दूसरी कार्यशाला दिनांक 11 जून, 2024 को आयोजित की जिसमें डॉ. रजिला ओ. पी. सहायक आचार्य, सरकारी कला एवं विज्ञान महाविद्यालय, कोंडोट्टी ने “संप्रेषणीय हिंदी” पर व्याख्यान दिया।

Hindi Anubhag



हिंदी सम्मेलन

डॉ. एन. के. लीला, प्रधान वैज्ञानिक एवं हिंदी अधिकारी तथा श्रीमती एन. प्रसन्नकुमारी, सहायक मुख्य तकनीकी अधिकारी ने राजभाषा विभाग द्वारा हिंदुस्तान एरनॉटिक्स लिमिटेड, बेंगलूरु में 19 जनवरी 2024 को आयोजित क्षेत्रीय राजभाषा सम्मेलन एवं पुरस्कार वितरण समारोह में भाग लिया।

श्रीमती एन. प्रसन्नकुमारी, सहायक मुख्य तकनीकी अधिकारी ने भाकअनुप-राष्ट्रीय कृषि अनुसंधान एवं प्रबंध अकादमी, हाइदराबाद द्वारा 28-29 मई 2024 के दौरान आयोजित दो दिवसीय राजभाषा कार्यशाला में भाग ली।

श्रीमती एन. प्रसन्नकुमारी, सहायक मुख्य तकनीकी अधिकारी ने 1 मार्च 2024 को भाकअनुप-भारतीय मृदा एवं जल संरक्षण संस्थान, देहरादून, उत्तराखंड द्वारा आयोजित ऑनलाइन राजभाषा प्रशिक्षण सह राजभाषा संवाद कार्यक्रम में भाग लिया।

हिंदी प्रकाशन

- मसाला समाचार जनवरी-जून 2023
- एआईसीआरपीएस वार्षिक प्रतिवेदन का कार्यकारी सारांश 2023
- हल्दी पुस्तिका
- मसालों की महक 2023
- अनुसंधान के मुख्य अंश

राजभाषा रिपोर्ट

संस्थान के राजभाषा कार्यान्वयन की तिमाही एवं वार्षिक रिपोर्ट तैयार करके भारतीय कृषि अनुसंधान परिषद, नई दिल्ली को भेज दिया। तिमाही रिपोर्ट एवं वार्षिक रिपोर्ट राजभाषा विभाग, नई दिल्ली को ऑनलाइन भर दिया।

Hindi Anubhag

भाकृअनुप-भारतीय मसाला फसल अनुसंधान संस्थान क्षेत्रीय केंद्र, अप्पंगला

भाकृअनुप-भारतीय मसाला फसल अनुसंधान संस्थान के क्षेत्रीय केंद्र, अप्पंगला में जनवरी-जून 2024 की अवधि में राजभाषा कार्यान्वयन के लिए निम्न लिखित कार्य संपन्न हुए।

- केंद्र के श्री जयप्रकाश पी. टी. ने नगर राजभाषा कार्यान्वयन समिति मडिकेरी द्वारा 19.02.2024 को आयोजित हिंदी समाचार पत्र वाचन प्रतियोगिता में भाग लिया।
- दिनांक 22.03.2024 को हिंदी व्याकरण तथा राजभाषा कार्यान्वयन के लिए हिंदी टिप्पणी एवं आलेखन पर एक कार्यशाला आयोजित की। श्री अनिलकुमार तिवारी, प्राध्यापक, तवोदया विद्यालय, कोडगु ने उपरोक्त पर व्याख्यान दिया।
- दिनांक 26.6.2024 को हिंदी टिप्पणी एवं राजभाषा कार्यान्वयन पर एक कार्यशाला आयोजित की। डॉ. एन. के. लीला, प्रधान वैज्ञानिक एवं प्रभारी हिंदी अधिकारी, भाकृअनुप-भारतीय मसाला फसल अनुसंधान संस्थान, कोषिकोड समारोह में मुख्य अतिथि थीं। श्रीमती एन. प्रसन्नकुमारी, सहायक मुख्य तकनीकी अधिकारी, भाकृअनुप-भारतीय मसाला फसल अनुसंधान संस्थान, कोषिकोड ने कार्यशाला में व्याख्यान दिया।
- भाकृअनुप-भारतीय मसाला फसल अनुसंधान संस्थान क्षेत्रीय केंद्र अप्पंगला को नगर राजभाषा कार्यान्वयन समिति द्वारा आयोजित शील्ड प्रतियोगिता में केंद्रीय सरकार के कार्यालयों की श्रेणी में वर्ष 2023-24 में संघ की राजभाषा नीति के उत्कृष्ट कार्यान्वयन के लिए प्रथम पुरस्कार प्राप्त हुआ।



Major Events

QRT Visit



The Quinquennial Review Team (QRT) visit was held at ICAR-IISR during 17-19 January. The review team chaired by Dr. Parvinder Kaushal, Vice Chancellor, Veer Chandra Singh Garhwali Uttarakhand University of Horticulture & Forestry, Bharsar, Pauri Garhwal, Uttarakhand included Dr. SK Pandey, Former Director, ICAR-CPRI Shimla; Prof. V. Palanimuthu, Director, NIFTEM Thanjavur; Dr. Yaduraju NT, Former Director ICAR-Directorate of Weed Research Jabalpur; and Dr. SK Sharma, Former Director, ICAR-CIAH Bikaner. The QRT reviewed the progress on research and development activities pertaining to both ICAR-IISR and the All India Coordinated Research Program on Spices (AICRPS) for the period of 01.04.2018-31.03.2023.

Republic Day Celebration



EDP on Processing and Value Addition of Spices

An EDP on Processing and Value Addition of Spices has commenced at ICAR - IISR for 14 entrepreneurs from Assam. Dr. R Dinesh, Director, ICAR-IISR inaugurated the training program. The five-day EDP being held during 12-16 February is sponsored by the Department of Industries, Commerce & Public Enterprise, Government of Assam, and the Assam Agribusiness Rural Transformation Project (APART). The program was scheduled to cover hands on training on processing of spices, quality evaluation of spices, preparation of DPRs and other aspects related to entrepreneurship in spice processing sector.

Major Events

International Women's Day Celebration

ICAR-IISR celebrated International Women's Day 2024 on behalf of Institute's Women Cell, under the theme 'Invest in Women: Accelerate Progress'. Dr Lakshmi V M, Group Director, Solid Propellant Combustion Research Group, Vikram Sarabhai Space Centre, Thiruvananthapuram was the chief guest of the program. She also delivered a talk on the topic 'Challenges for a Women leader in Science'. The program was presided over by Dr. R Dinesh, Director, ICAR-IISR. A panel discussion on 'Inspiring an Inclusive Society: The Path Ahead' was part of the program's afternoon session. The panelists included Dr. Lakshmi V. M., Dr. R. Dinesh, Dr. Shakeela V., Director, Community Agrobiodiversity Centre, MSSRF, Wayanad; Dr. Manoj P. Samuel, Executive Director, KSCETC-CWRDM, Kozhikode; Ms. Archana Raj, Administrator, SAKI-One Stop Centre, Kozhikode; and Ms. Nishida Saibuni, DPM, Kudumbashree Mission, Kozhikode. The program was arranged by Dr. R Praveena and Dr. R Sivarenjini along with other Women Cell members.

UDAYAM 2024

UDAYAM 2024 – Women's Entrepreneurship Meet and Agricultural Expo was organized during 22,23 and 25 March 2024. An exhibition specially focused on small scale enterprises in agriculture and allied sectors was held in the first day of the program. The program organized by Institute Technology Management – Agri Business Incubation Unit (ITM-ABI) of ICAR-IISR was inaugurated by Dr. Neeru Bhushan, Assistant Director General, IP&TM, ICAR New Delhi. Ms. Sindhu R, District Project Coordinator, Kudumbashree Mission, Kozhikode, served as the Chief Guest for the inauguration of the exhibition stalls. Dr. Dinesh R, Director, IISR, presided over the inaugural session alongside Mr. Ananthakumar T K, Dr. T.E. Sheeja, and Dr. Maneesha S R. Around 60 exhibition stalls by women entrepreneurs

Major Events



Ms. Sindhu R inaugurating the exhibition stalls



showcasing their innovations and diverse products were the major highlight of the event. The technologies and products from ICAR-IISR was also displayed to the institutional buyers and general public.

8th Dr. Y R Sarma Memorial Lecture

Dr. Prasad S. Variyar, former Head of the Food and Fermentation Applications Section (FFACS) at the Bhabha Atomic Research Centre in Mumbai delivered the eighth Dr. Y.R. Sarma Memorial Lecture on "Radiation Processing for Enhancing Post-Harvest Quality of Spices" at the ICAR-Indian Institute of Spices Research (ICAR-IISR). The event, held in association with the Dr. Y.R. Sarma Memorial Trust at the IISR headquarters, honored the memory of Dr. Y.R. Sarma, former director of ICAR-IISR and a prominent scientist who significantly contributed to spice research in India and internationally. Dr. R. Dinesh, Director of ICAR-IISR, presided over the program. The ceremony also saw the presentation of the Best Farmer 2024 Award, instituted by the Dr. Y.R. Sarma Memorial Trust. The award was given to Shri. Laxmana Gowda G.M., a progressive farmer from Mudigere, Chikkamagaluru, Karnataka, known for his exceptional cultivation of spices and plantation crops. Mr. Gowda's success lies in his approach, which combines traditional genotypes with high-yielding varieties like Panniyur 1, Sreekkara, Subhakara, and IISR Thevam black pepper. He has also implemented sustainable practices by fortifying farmyard manure with bioinoculants and using recom-

Major Events



Ms. Sindhu R inaugurating the exhibition stalls



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Major Events



Dr. Prasad S. Variyar delivering 8th Y R Sarma Memorial Lecture



Shri. Laxmana Gowda G.M. receiving Best Farmer 2024 Award

showcasing their innovations and diverse products were the major highlight of the event. The technologies and products from ICAR-IISR was also displayed to the institutional buyers and general public.

Swachh Bharat Abhiyan

As part of Swachhta Abhiyan, cleanliness drive was carried out at ICAR – IISR head quarters, Experimental farm, Pervannamuzhi, RS-Appnagala and KVK, Peruvannamuzhi on a regular basis.



Cleaning of the aquaponics unit area at Kishi Vigyan Kendra, ICAR – IISR as part of Swachhta programme



Mechanical weeding done at the agro meteorology area of the experimental farm, Peruvannamuzhi done as part of swachhta programme



Major Events



Laboratory cleaning at ICAR – IISR as part of Swachhta programme

National Science Day 2024



National Science Day was celebrated at ICAR – IISR on 28th February 2024. The chief guest of the programme was Shri. M M K Balaji, Project Coordinator, Regional Science Centre and Planetarium, Calicut, who also delivered the science day lecture on the theme 'Indigenous Technologies for Viksit Bharat'. A science quiz competition was also organized for the students and staff members.

Summer Internship Training on Spice processing and Product diversification

ICAR - IISR, Kozhikode conducted a one-month Summer Internship Programme on 'Spice processing and Product diversification' from 29th May to 28th June 2024. Seven students from Dr. N G P Arts and Science College, Coimbatore participated in the programme to gain hands-on training in cutting-edge spice processing techniques. The programme comprised of theory and practical sessions in product development, analysis and standardization. The training was coordinated by Dr. E Jayashree, Principal Scientist and Dr. P V Alfiya, Scientist, ICAR – IISR.



Publications

Research Papers

- Jayashree E. 2023. Thin layer modeling for drying of nutmeg mace (*Myristica fragrans*) in reverse air flow dryer. *The Pharma Innovation Journal*, 12(12): 4178-4185.
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- Charles, S. and Lopus, M. (2024). Bioinformatics Tools and Resources for Plant Transcriptomics. In *Bioinformatics for Plant Research and Crop Breeding*, J.-T. Chen (Ed.). <https://doi.org/10.1002/9781394209965.ch10>
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- Sharon Aravind, Nisthar E, Chaithanya K. C., Sivaranjani R., Kandianan K, Srinivasan V, Mukesh Sankar S & Nirmal Babu K. 2024 Induction of in vitro micro rhizomes and assessment of yield, quality, and clonal fidelity in ex vitro established plants of ginger (*Zingiber officinale* Rosc.). *Plant Cell, Tissue and Organ Culture (PCTOC)* (2024) 157:28
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- Snigdha Mohandas, Sarathambal C., Anees K., Jayashree E. and Janifer Raj Xavier. 2024. Innovations in detection of adulterants in spices and condiments. In: *Food Adulterants and Contaminants* (Eds. Gopal Kumar Sharma, Jenifer Raj Xavier, Ajay Singh), NIPA. GENX Electronic Resources & Solutions P. Ltd., New Delhi, pp: 359- 378.

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Students Corner

M Sc Dissertations

Sl. No.	Name	Title of the M.Sc. thesis	University to which submitted	Degree
1.	Ms. Shahala P. 7-2-2024 to 6-5-2024	Development of turmeric oleoresin incorporated arrowroot-starch based packaging film	Mahatma Gandhi University, Kottayam	M.Sc., Food Technology and Quality assurance
2.	Ms. Vaishnavi N. 7-2-2024 to 6-5-2024	Quality Evaluation of Different Varieties of Black Pepper (<i>Piper nigrum</i> L.) for Food and Nutraceutical Applications	Mahatma Gandhi University, Kottayam	M.Sc., Food Technology and Quality assurance
3.	Ms. Jayisa Jamal 4-3-2024 to 3-6-2024	Physico-chemical Evaluation of Black Pepper (<i>Piper nigrum</i> L.) Varieties for Food and Nutraceutical Applications	Kerala University of Fisheries and Ocean Sciences	M.Sc., Food Science and Technology
4.	Ms. Theertha	Development and Evaluation of hot air assisted infrared dryer for turmeric slices	Mahatma Gandhi University, Kottayam	M.Sc. Food Science and Technology

Personalia

New Appointment

Name	Post
Mr. Rakesh M Raghavan	Senior Technical Assistant
Mr. Debayan Banerjee	Technical Trainee
Mr. Satya Priya Singh	Technical Trainee

Personalia**Retirement**

Name	Post	Date
Mr. V S Sunil	Assistant Administrative Officer	31.05.2024
Mr. K Krishnadas	Technical Officer	31.05.2024
Ms. P K Chandravally	Technical Officer	31.05.2024
Ms. P N Kausalya	Technician	31.05.2024

Publisher**Director**

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