

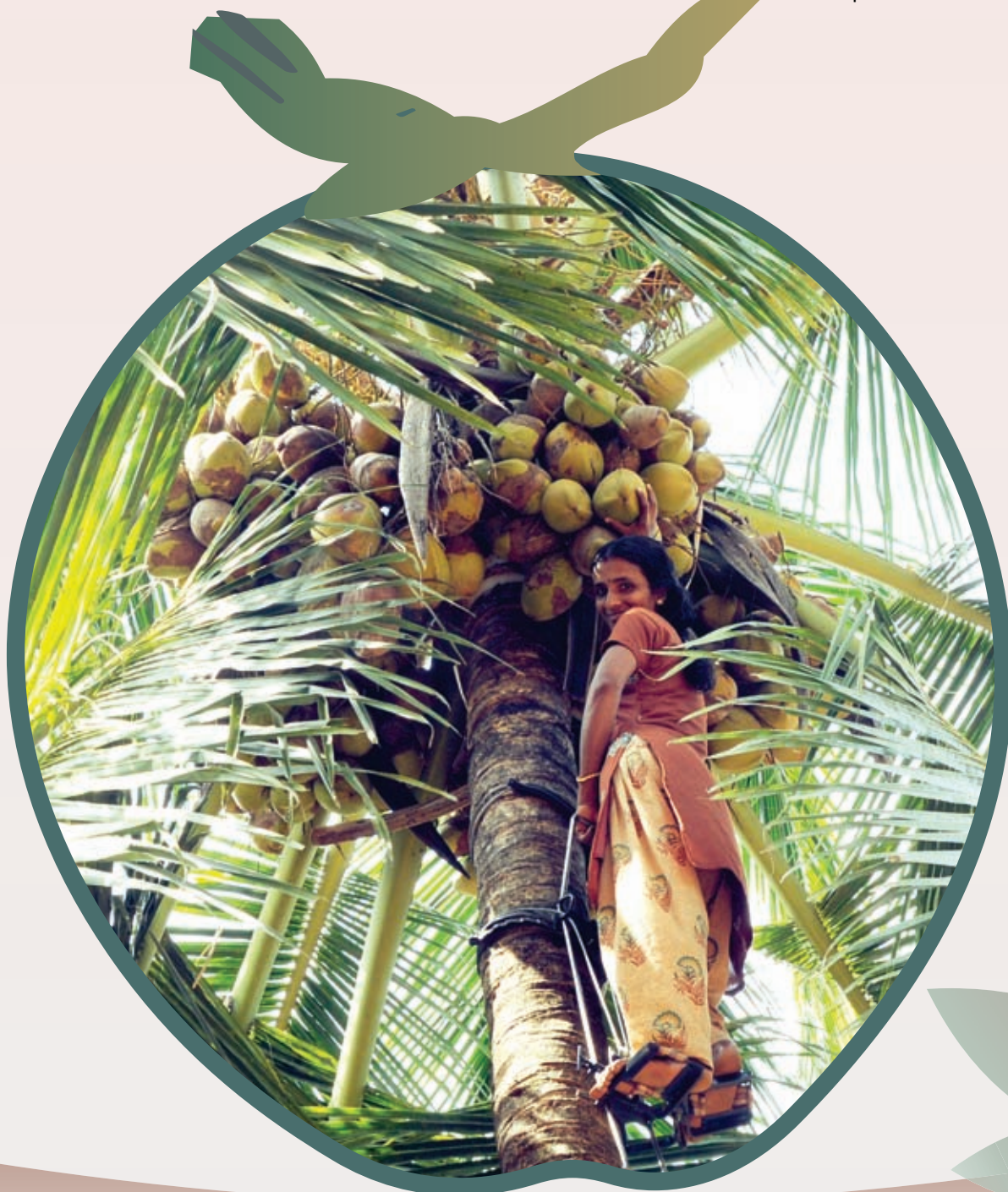


KALPA

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ICAR-CENTRAL PLANTATION CROPS RESEARCH INSTITUTE

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Valedictory of Kalpa Vajra



Dr. A. K. Singh, D.D.G (Hort. Science), inaugurating Kalpa Vajra valediction cum futurium programme

Dr. A. K. Singh, DDG (Hort. Science) ICAR, New Delhi, inaugurated the Kalpa Vajra Valediction cum Futurium Programme of the ICAR-CPCRI, Regional Station, Kayamkulam, Kerala, on 13th May, 2023. He graced the occasion as the chief guest. In his inaugural address, he complimented the innovative technological solutions offered by the Institute and stressed the need to get prepared for the use of artificial intelligence and sensor-based technologies for income maximisation. Dr. K.B. Hebbar, Director, ICAR-CPCRI, welcomed the gathering and highlighted the research accomplishments of the Regional Station.

Dr. A. K. Singh, DDG, released 'Kalpa Vajra' coconut variety for root (wilt) disease tracts, a modified 'ground pollination tool kit', a MoU exchange of nutrient formulations, viz., 'Kalpa Poshak and Kalpa Vardhini' to FPO and KVK, and the bunch of millet products by Odanadu Farmer Producers' Company Limited. He also inaugurated Agri-tech Exhibitions with more than 25 stalls from ICAR institutes, KAU, FPO and women's groups. He also commissioned new infrastructure, viz., a coconut pollen processing laboratory, a laboratory for plant measurements, and a 125 KV diesel generator set. He announced the Kalpa Vajra Award for the best coconut farmer in the root (wilt) disease tract of the country. Five publications, viz., Kalpa Dyuthi, ICAR-CPCRI Year Planner, Kalpa Vajra Events in a Nutshell, a Technical Bulletin 'Cocoa – Coconut Management Handbook' (Malayalam) and a Training Manual 'Cocoa Note Book' (Malayalam), were published on the occasion. Earlier, the planting of coconut seedlings in Kalpa Vajra block with 75 seedlings of released coconut varieties and palmyrah seedlings as a new experiment on germplasm was held. Dr. G. Byju, Director, ICAR-CTCRI, Thiruvananthapuram; Dr. K. Suresh, ICAR-IIOPR, Pedavegi, Dr. Mini, Head, ORARS, KAU, Kayamkulam; and Dr. Hanumanthe Gowda, Chief Coconut Development Officer, Coconut Development Board, Kochi, have participated in the programme.

In the afternoon, a farmers' seminar cum interface programme was held. Shri D. Kuppuramu, Chairman, Coir Board, Kochi, inaugurated the programme. Farmers queries were addressed by the experts. More than 500 farmers participated in the programme.

CONTENTS

03 Spectrum

04 Important Events

07 Transfer of Technology

10 Krishi Vigyan Kendras

13 Celebrations

04 Success Story

06 Human Resources Development

08 Publications

12 Commercialization of Technology

15 Personalia



5



6



11



14



Notification of new varieties of coconut and cocoa

A coconut variety 'Kalpa Vajra' and two cocoa varieties 'VTLCS-1' and

'VTLCS-2' have been released by the Central Sub-committee on Crops

Standards, Notification and Release of Varieties for Agriculture Crops.

Kalpa Vajra

A tall variety, WCTxWCT progenies, based on performance evaluation trials at CDB Farm, Neriamangalam and ICAR-CPCRI, RS, Kayamkulam,

were high yielding and root (wilt) disease-free West Coast Tall (WCT) palms, superior in terms of higher yield and recorded less root(wilt)

disease incidence and recommended for release as 'Kalpa Vajra', suitable for cultivation in root (wilt) disease prevalent tract.



High yielding coconut variety
Kalpa Vajra



Cocoa hybrid VTL CS-1



Cocoa hybrid VTL CS-2

VTLCS-1 and VTLCS-2

Cocoa selections, VTLCS-1 and VTLCS-2, based on their vigour, early, stable, high yielding

potential (2.52 and 2.70 kg/tree/year, respectively), were recommended for release to cocoa

growing regions of the country.

Bioprospecting actinobacteria from coconut palm residue-amended soils

Actinobacteria which include a diverse group of filamentous, spore forming bacteria are reported as the prolific producers of bioactive secondary metabolites including plant growth promoting metabolites, hydrolytic enzymes and antimicrobial compounds suitable for agricultural applications. Functional diversity of culturable actinobacterial population in coconut plantation soil collected from the Ecological Engineering Block of ICAR-CPCRI, Regional Station, Kayamkulam with coconut basins mulched with agro-residues

from the system was assessed. Actinobacterial population in coconut agro-residues mulched soil ranged from 6.02 to 7.01 log CFU/g dry weight of soil. Sixteen actinobacterial isolates with distinct morphological characters were selected for screening studies. Most of the isolates (93%) secreted plant phytohormone Indole Acetic Acid (IAA). Of the 16 actinobacterial isolates, eleven solubilized tri-calcium phosphate and thirteen recorded zinc solubilization activity. About 37% isolates recorded positive for all the five hydrolytic

enzymes viz., cellulase, amylase, protease, lipase and chitinase. Two isolates showed antagonistic activity against the coconut leaf rot pathogen *Colletotrichum* sp. on dual culture assay plate. Results demonstrated that the soils amended with coconut palm agro-residues are unique reservoir of versatile and metabolically active actinobacteria, which can be a promising source for bioprospecting microbial inoculants to reclaim and sustain soil and plant health.

Indhuja, S., Sreeja, S., Babu, M.,
Josephraj Kumar, A., Gupta, A. and Haris, A., A.,

Polyembryony in arecanut var. Kahikuchi

Polyembryony has been observed for the first time in arecanut var. Kahikuchi at Research Centre Kahikuchi. Bi and tri polyembryony per seed nut were observed among the seedlings. Similar cases of polyembryony were also reported



Polyembryony in Arecanut var. Kahikuchi

from ICAR-CPCRI, Regional Station, Vittal, earlier in different arecanut varieties.

Anok Uchoi,
Singh, L., S., and Alpana Das



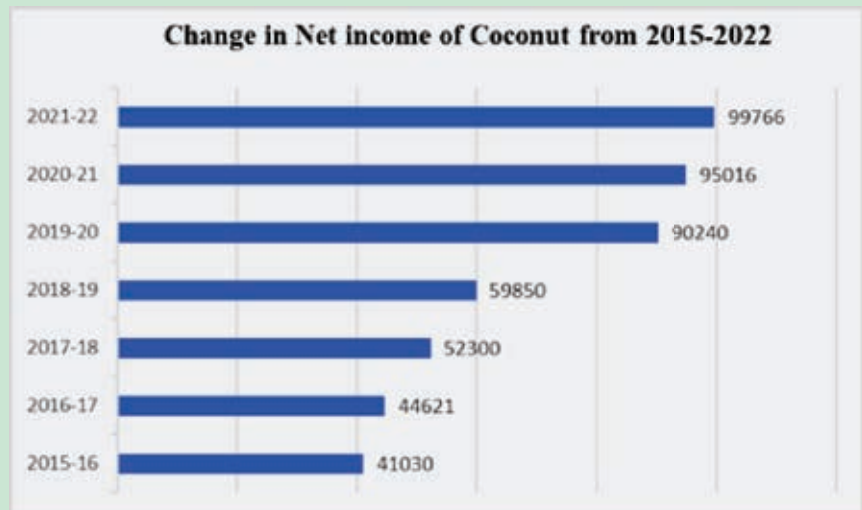
SUCCESS STORY

The impact of integrated root (wilt) disease management in the crop module of ICAR-CPCRI farmer first programme

The programme was undertaken in 142.35 hectares of the FFP project area involving 24200 coconut palms of Alappuzha district. The production per hectare increased from 42 to 79 percent with 40 percent increase in marketed nuts and 3.8-fold increase in coconut oil production and marketing. As per the criteria set forth by ICAR-CPCRI, a total of 709 mother palms were selected from 52 wards of three panchayats and 9000 polybag seedlings bioprimered with Kera probio were planted.

The average net income per hectare from coconut of root (wilt)

disease affected area improved (143.15 percent increase) from Rs. 41,030 to Rs. 99,766 2015-16 to 2021-22 period.



Change in net income from Coconut (Rs./ha) (2015-16 to 2022)



IMPORTANT EVENTS

District level seminar and exhibition on jackfruit under ODOP

ICAR-CPCRI, organized 38th Annual Workshop of the All India Coordinated Research Project on Post-Harvest Engineering and Technology (AICRP on PHET) during 20th to 22nd February, 2023 at Kasaragod. A total of six sessions

were conducted during the Annual Workshop. Prof. Prasad Krishna, Director, NIT-Calicut was the chief guest of the inaugural session. He complemented the whole PHET group for the technologies and machines developed. He suggested

for acoustic sensors to detect spoilages in grain storage warehouses. He assured the co-operation for collaborative research with NIT-Calicut and Suratkal on research activities related to IoTs in Agriculture. The session was chaired by Dr. S. N. Jha, DDG (Agrl. Engg.) and other dignitaries in the dais were Dr. K. Narsaiah, ADG (Process Engg), Dr. K. B. Hebbar, Director, ICAR-CPCRI, Dr. Nachiket Kotwaliwale, Director, ICAR-CIPHET, and Dr. R. K. Vishwakarma, Project Co-ordinator of AICRP on PHET.



Dr. K. Balachandra Hebbar releasing a publication on jackfruit recipes

Millet promotion in coconut gardens

In 2023 demonstrated finger millet, little millet, proso millet and sorghum as intercrops in 100 acres of coconut gardens of FFP implementation locations. The interventions included field level training programs, MGNREGS convergence for cultivation of millets under land consolidation approach, field visits, newspaper and media publicity, visits to plots from various agencies and

students. The potential yield was achieved in case of proso, little and finger millets. Sorghum was a big draw among visitors and linkage programs for millet popularization undertook with food safety department, Department of Agriculture, Amritha Institute, Colleges, KMML and LSGDs. A food festival with 32 millet products out of the harvest attracted almost 1200 participants. The Hon.

Minister of Agriculture, Kerala, Mr. P. Prasad, Hon. MP Alappuzha Sri. Arif, Hon' MLA, Kayamkulam Adv. U. Prathibha, Kerala Haritha Mission Director Dr. N. Seema, Block and Panchayath members visited the cultivation of millet in coconut gardens and the model was appreciated to be replicated in the millet mission activities of the district.

25th Research Advisory Committee meeting

The XXV meeting of the Research Advisory Committee was held at ICAR-CPCRI, Kasaragod on 9th June, 2023.

Dr. V. A. Parthasarathy FNABS, Former Director, IISR, Kozhikode, Chairman, Dr. Nirmal Babu, Former Director, ICAR-IISR, Kozhikode, Dr. George V. Thomas, Former Director, ICAR-CPCRI, Kasaragod, Dr. V. B. Patel, ADG (Fruits and Plantation Crops), ICAR, New Delhi, Dr. H. B. Singh, Former Professor & Head, Plant Pathology, 13/21 Vikas Nagar, P.O. Vikas Nagar, Lucknow-226022 (U.P.), Dr. P. S. Negi, Chief Scientist, Fruits and Vegetables Technology, CSIR-CFTRI, Mysuru, Dr. R. N. Padaria, Joint Director (Extension), ICAR-IARI, Pusa, New Delhi, Mr. Krishna Kumar, Managing Director, CAMPCO Ltd., Mangaluru, Shri. Suresh Kumar Shetty, Progressive Farmer, Kumbala, Kasaragod, Shri. Sadananda Shetty,

Progressive Farmer, Paivalike, Manjeshwara, Dr. K. Balachandra Hebbar, Director, ICAR-CPCRI, Kasaragod, Members and Dr. Vinayaka Hegde, Head (Acting), Div. Crop Protection, ICAR-CPCRI, Kasaragod Member Secretary were present. Dr. V. B. Patel and Dr. R. N. Padaria attended the meeting online through video conferencing.

All the Heads of the Divisions, the Project Coordinator (Palms), Heads of Regional Stations, Heads of KVKs, programme leaders and other scientists from the headquarters, Regional Station, Vittal and Research Centre, Kidu attended the meeting. Scientists from Kayamkulam, Mohitnagar and Kahikuchi also attended the meeting through videoconferencing.

Dr. K. Balachandra Hebbar, the Director, presented the Institute's achievements and highlighted various aspects including the

development of standard operating procedures for drone-based spray of agro-chemicals, non-invasive detection of red palm weevil in palms, progress and roadblocks in tissue culture-based planting material production, technology commercialization and revenue generation. The need for a centralized laboratory facility, one scientist one product, and one technical, one skill was emphasized to achieve the action points as enumerated under eight thematic areas during the Directors' presentation.

The following publications were released:

- One CPCRI Multiple Innovations
- Ready Reckoner: Coconut, Arecanut and cocoa (English and Malayalam)

Later research achievements under the eight mega-project leaders presented the salient achievements of the respective project. Based on discussions following recommendations were given by the RAC.

1. Get unique germplasm registered with EC/IC numbers ICAR-NBPGR
2. Reorient the current research programmes under areas suggested below:

- Phenotyping and genotyping for climate resilient traits/genotypes and quality parameters



Release of publications during the RAC meeting

- Optimization of mass multiplication protocols
 - Input use efficiency for higher productivity and environmental security
 - Integrated pest and disease management for sustainable production
 - Use of Artificial Intelligence (AI) and Information and Communication Technology (ICT) for increased efficiency and reduced costs
 - Extraction and characterization of bioactive compounds and value addition
 - Technology evaluation, Impact and Entrepreneurship Development (TIED)
3. A coconut-based perennial fruit crops system having when carbon

- trading model to be developed,
4. Collaborate with institutions for the development of pest and disease forewarning models
 5. Biochemical principles to be quantified in plantation crops

6. Scientists may be encouraged to get international fellowships.
- The meeting was concluded with a vote of thanks by Dr. Vinayaka Hegde, Member Secretary.



The RAC team along with project leaders during the field visit



HUMAN RESOURCES DEVELOPMENT

Training within India

Scientific

Name and designation	Title of the programme	Conducted by and Date
Dr. S. Elain Apshara, Head (Acting) & Principal Scientist (Hort.)	One day online workshop on 'Prevention, prohibition and redressal of sexual harassment of women at work place'	Institute of Secretariat Training and Management (ISTM), New Delhi on 01 st May, 2023.
Dr. Jeena Mathew, Senior Scientist	Online training programme on 'Precision farming'	ICAR-ATARI, Kanpur and ICRISAT, Hyderabad from 15 th May to 13 th June, 2023

Technical

Name and designation	Title of the programme	Conducted by and Date
Dr. Muralikrishna K. S., Senior Technical Assistant	Online Training Program in Hindi on "Introduction to Statistical and Machine Learning Techniques in Agriculture".	ICAR-IASRI, New Delhi, from 06 th to 12 th June, 2023

Awards / Honours

Name and designation	Name of the Award	Place and date
Dr. Neelofar Illias Kutty, Chief Technical Officer, ICAR-KVK, Kasaragod	Second runner-up for her Poushaka Potali, a millet-based recipe in "Meri Poushtik Rasoi 2023" competition by Glenmark Foundation	Ramanad Payyade College of Hospitality Studies, Kurla in Mumbai from 05 th to 06 th May, 2023



TRANSFER OF TECHNOLOGY

Trainings

Programme	Conducting Organisation and Date	Participants
Pre-monsoon training on IPM measures : 'Crop protection in coconut and arecanut – pre-monsoon prophylactic measures'	ICAR-CPCRI, Kasaragod, 29 th May, 2023	Agriculture officers and field extension officers
Workshop on emerging pests and diseases of coconut and arecanut: 'Management of emerging pests and diseases of coconut and arecanut'	ICAR-CPCRI and Department of Horticulture, Dakshina Kannada District at St. Aloysius College, Mangalore, 30 th June, 2023	68 extension officials
Training on Coconut Production and Value Addition Technologies: 'Coconut production and value addition technologies'	ICAR-CPCRI, Kasaragod, 15 th June, 2023	Farmers and other stakeholders
National Training on Hybridization Techniques in Coconut: 'Hybridization techniques in coconut'	ICAR-CPCRI, Research Centre, Kidu, 02 nd June, 2023	25 trainees from Tripura, Chhattisgarh, Kerala, Karnataka and Tamil Nadu participated.
Training-cum-Workshop on Crop Protection in Coconut and Arecanut : 'Crop protection in coconut and arecanut with special focus on pre-monsoon prophylactic measures'	ICAR-CPCRI, Kasaragod, 29 th May, 2023	Extension personnel of Department of Agriculture, Kasaragod district
Farmer – Scientist Interactive Meeting cum Training on Cinnamon Cultivation in Coconut Garden: 'Cinnamon cultivation in coconut garden'	ICAR – CPCRI in collaboration with Department of Horticulture, Karnataka at Horticulture Department, Bhatkal, Uttara Kannada, 29 th May, 2023	More than 35 farmers
Training on Horticultural Techniques for Income Maximisation from Coconut Based Cropping System : 'Horticultural techniques for income maximisation from coconut based cropping system'	ICAR-CPCRI, Regional Station, Kayamkulam, 15 th to 26 th May, 2023	100 participants
Scientist –Farmer Interface Programme : 'Seedling production techniques in coconut and scientific crop management practices'	ICAR-CPCRI, Kasaragod in collaboration with CRD, Nileshwar at Thayanoor, 11 th May, 2023	30 selected participants under the NABARD assisted Integrated Tribal Development Project participated.
Focus Group Discussion on Farmer Producer Companies in Assam : 'Farmer Producer Companies in Assam – Status and Strategies'	ICAR-CPCRI, RC, Kahikuchi at Kamrup Rural, 24 th April, 2023	Experts, CEOs and members of FPCs
Management of Ganoderma disease in arecanut	ICAR-CPCRI, RC, Kahikuchi in collaboration with ICAR-ATARI, Zone VI, Guwahati, Assam, 26 th to 27 th April, 2023	Subject Matter Specialists (SMS) from four KVKs viz., Goalpara, Kokrajhar, Dhubri and Bongaigaon districts, Scientists from ICAR-CPCRI, Kasaragod and Research Centre, Kahikuchi, Assam
Scientific arecanut cultivation	ICAR-CPCRI, RC, Mohitnagar, 05 th June, 2023	65 participants
Crop diversification in plantation garden with spices	ICAR-CPCRI, RC, Mohitnagar, 12 th April, 2023	42 participants
'Scientific arecanut and coconut production'	ICAR-CPCRI, RC, Mohitnagar, 10 th May, 2023	40 participants



Research papers

- Anes, K. M., Merin Babu and Josephraj Kumar, A. 2023. Root-Knot Nematode, *Meloidogyne enterolobii* Yang and Eisenback, 1983 Infecting Guava Intercropped with Coconut Plantation in Kerala, India. *Indian J. Nematol.* **53**(1): 15-20. DOI: 10.5958/0974-4444.2023.00003.3
- Josephraj Kumar, A., Anes, K. M., Merin Babu, Pratibha, P. S., Sajan, J. V. and Hegde, V. 2023. Exotic whiteflies and conservation biological control in coconut system. *IOP Conf. Ser.: Earth Environ. Sci.* **1179** 012006 DOI 10.1088/1755-1315/1179/1/012006.
- Kumar, A., Antony, G., Rajesh, M. K., Josephraj Kumar, A. and Grace, T. 2023. Reference genes for expression studies in different developmental stages of *Oryctes rhinoceros*, the coconut rhinoceros beetle. *J Asia-Pacific Entomol.* **26**: 102066 <https://doi.org/10.1016/j.aspen.2023.102066>
- Logeshkumar, P., Nalini, R., Josephraj Kumar, A., Chandramani, P., Mini, M. L., Durai Singh, R. and Murugan, M. 2023. Flight activity of invasive rugose spiralling whitefly (*Aleurodicus rugioperculatus* Martin) and bondars nesting whitefly (*Paraleyrodes bondari* Perrachi) in coconut orchards. *Res. Crop.* **24**(2): 403-406. DOI: 10.31830/2348-7542.2023.ROC-946
- Nihad, K., Haris, A. A., Subramanian, P., Mathew, J., Indhuja, S., Neenu, S., Bhat, R. and Shil, S. 2023. Efficient nutrient recycling strategy through integrated nutrient management in hybrid napier within a coconut (*Cocos nucifera* L.)-based system. *Indian Journal of Agricultural Sciences* **93**(6): 647–652. <https://doi.org/10.56093/ijas.v93i6.136165>
- Singh, L. S., Anok Uchoi and Ganesh Das. 2023. Impact of farm mechanization training on knowledge development of farmers: A study in Kamrup district of Assam. *Indian Research Journal of Extension Education*, **23**(2): 81-85.

Popular articles

- Anes, K. M., Merin Babu, Josephraj Kumar, A., Jilu, V. Sajan. and Julie Mariam Mathew. 2023. Thengathishttitha Krishiyedathile shathrukkalum mitrangalumaya nemaviragal. *Indian Nalikera Journal*, **15**(6): 5-9
- Anithakumari, P., Akhilesh, P.K., Anju Krishnan and Bhavya, S. 2023. Sree Anna of coconut gardens. (In Malayalam). *Indian Nalikera Journal*, **15**(6): 10-16
- Arun Kumar Sit. 2023. Water hyacinth a good substrate for vermicomposting. *The Anandabazar Patrika*. 26th April, 2023. p 4.
- Jilu, V. Sajan, Anes, K. M., Merin Babu and Josephraj Kumar, A. 2023. Thenginte ulpadana mikavinu anuvarthikkenda roga keeda paripalana murakal. *Indian Nalikera Journal*, **15**(5): 16-20.
- Jissy George, Muhammed Ijaz, N., Anju Sathyan, and Muralidharan P. 2023. Millets for health care. *Oushadham*. **24** (5): 15-17.
- Josephraj Kumar, A., Anes, K. M., Merin Babu, Jilu, V. Sajan, Prathibha P. S., Indhuja S., Shareefa M., Regi J. Thomas, Vinayaka Hegde and Anithakumari P. 2023. Good Management Practices for Pest and Disease Suppression in Coconut. *Indian Coconut Journal* **65**(10): 5-10
- Rajeev, M. S., Muralidharan P. 2023. Sesamum cultivation. *Karshakan*. **31**(4): 26-28.
- Ravi, S., Muralidharan P. 2023. Climate resilient floating duck shelter. *Karshakan* **31**(06): 53-54.
- Thamban, C., Alpina Das, Singh, L.S. and Anok Uchoi. 2023. Challenges and prospects of coconut cultivation in North East India. *Indian Coconut Journal*, **66**(1): 5-9.

Book chapters

- Kanzaki, N., Banu, G. and Anes, K.M. 2023. Nematode problems in palms and their sustainable management. In: *Nematode Diseases of Crops and their Sustainable Management* (Eds. Khan M.R. and Quintanilla M.). Academic Press Elsevier Science, London, UK.

Extension folder

- Singh, L.S., Anok Uchoi and Alpina Das. 2023. Farm machinery-Training and demonstration for North East region of India. Extension folder no.154. ICAR-CPCRI, Kasaragod. (In English)

Training manual

- Nihad, K., Haris, A. A. and Anithakumari, P. 2023. Training manual on 'Horticultural techniques for income maximisation from coconut based cropping system'. ICAR-CPCRI, Regional Station, Kayamkulam. 112p.

Exposure visit

Participants	University	To	Date
Input Dealers under DAESI	KVK, Jalpaiguri	ICAR-CPCRI, Mohitnagar	10 th May, 2023

Awareness programme

Programme	Venue and Date	Participants
Diagnostic Field visit at East Khasi Hill, Meghalaya	Arecanut gardens in Laitumsaw and Umsawrang villages under Mawsynram block of East Khasi Hills District of Meghalaya, 25 th April, 2023	Scientists from ICAR-CPCRI along with extension personnel from Directorate of Horticulture, Meghalaya



Director, DASD observing the cinnamon plants under coconut garden at Bhatkal, Karnataka



Field visit during workshop programme

Participation in exhibition

Programme	Venue and Date	Participants
NELAP (Northeast Livestock Aqua Poultry) Expo, 2023	Maniram Dewan Trade Centre, Guwahati, Assam, 18 th to 20 th April, 2023	ICAR-CPCRI, RC, Kahikuchi

TV programme broadcast

Title	Telecasted on and Date	Host
Live Phone-in-programme : 'Hybrid coconut and management practices to be adopted'	DD-4 Malayalam Channel, 21 th April, 2023	Thomas, R.J
Cult- Culture-Agriculture programme : 'History of Hortus Malabaricus'	Produced by ATIC, Kerala Agricultural University, Thrissur (Video recording done, 29 th May, 2023)	Thomas, R.J
'Millet promotion interventions as intercrop in coconut gardens- Success story of ICAR-CPCRI Farmer FIRST Program (FFP)'	Doordarsan, DD KRishi, Thiruvananthapuram, 02 nd June, 2023	
'Krishiyude Krishnagadha'	Asianet, Kisan Krishideepam, 24 th June, 2023	

Radio talks

Title	Telecasted On and Date	Host
'Pests and diseases in Onam Nendran banana'	AIR Thiruvananthapuram, 12 th May, 2023	Dr. T. Sivakumar, SMS (Agrl. Entomology)



KRISHI VIGYAN KENDRA, KASARAGOD

Frontline demonstrations

The KVK carried out 2 OFT's on foam mat drying of mango pulp and assessment of black pepper varieties in Kasaragod district. KVK also initiated 3 FLD's on *Gaenoderma* wilt management, a high yielding mosaic resistant variety of cassava

Sreeraksha and high density planting in cashew during the period. KVK also carried out 8 on campus training programmes with a participation of 48 farmers (16 male and 32 female) and 2 off-campus training programmes with a

participation of 8 farmers (2 male and 6 female) during the period.

The Drone technology was demonstrated by 20 farmers from Kasaragod on 18th May, 2023.

Other activities

The summer internship of four M. Sc. food science and quality

assurance programme students from MG University, Kottayam was

initiated on 8th May, 2023, for a period of 4 months.

T.S.P programme

The ICAR-KVK, Kasaragod in collaboration with ICAR-IIHR, Bengaluru, organized an awareness programme at Shenai village on 26th

May, 2023 in which more than 100 tribal farmers participated. Also distributed 2797 no's of jackfruit, mango, guava, amla, dragon fruit

seedlings and vegetable seed kits to the farmers.

Capacity building programme for extension functionaries

A capacity building programme for Extension functionaries of Kasaragod district on "Open Precision Farming" was organized

by the Department of Agriculture, Kasaragod on 2nd May, 2023, at ATMA Hall, Kasaragod. A total of 95 Agricultural Officers

and Agriculture Assistant from Kasaragod district participated in the programme.

Capacity building and scientist-farmer interface programme for scheduled tribes

A special programme for selected members (*Leaders*) of scheduled tribe families of the villages in Kodom-Belur Grama Panchayath of Kasaragod on 11th May, 2023 in collaboration with ICAR-CPCRI and Centre for Research and Development, Nileshwaram, Kasaragod. The programme was inaugurated by Ms. Sreeja P, President, Kodom-Belur Grama Panchayath in her opening remarks highlighted the components of the

integrated tribal development programme sponsored by NABARD and the importance of subsidiary income generation through agricultural activities for the sustainability of ST families. Dr. Thamban C., Principal Scientist, ICAR-CPCRI, briefed the coconut nursery management, package and practices of coconut cultivation. Dr. A. C. Mathew, Principal Scientist, ICAR-CPCRI discussed on the topic of soil and water conservation measures to

mitigate climate change issues. Dr. Benjamin Mathew, SMS-Horticulture, ICAR-KVK, Kasaragod, delivered on horticulture nursery management and its entrepreneurship potential for improving and augmenting the family income. The meeting was concluded with an active interactive session by participating farmers, which made them confident enough to initiate farming as an entrepreneurship activity for their sustainability. Dr. Sasikumar C., Director, CRD (PIA), Kasaragod, delivered the vote of thanks and encouraged the families to take up this programme positively and utilize the resource productively. A total of 35 ST farmers, farmwomen and 9 officials participated in the programme.



Dr. Thamban C, Principal Scientist, ICAR-CPCRI, interacting with the farmers during the programme

KRISHI VIGYAN KENDRA, ALAPPUZHA

Inauguration of turmeric processing unit and Karshaka Sabha

The turmeric processing unit, initiated as part of the 'Value chain in Turmeric' project implemented by ICAR-KVK-Alappuzha in 10 panchayaths of Mavelikkara and Chengannur blocks of Alappuzha district with funding from NABARD, was inaugurated by Shri. K. Krishnankutty, Hon. Minister for Electricity, Govt. of Kerala during the 'Karshaka Sabha' (Farmers' meet) organized at Chettikulangara on 9th May, 2023. The minister in his address invoked the farmers to increase the production of crops by

adopting scientific and innovative practices such as precision farming, micro irrigation etc. so as enhance the net income from agriculture.

The meeting was presided by Adv. U. Prathibha, MLA, Kayamkulam which was attended by about 150 farmers.



Shri. K. Krishnankutty, Hon. Minister for Electricity, inaugurating the programme

Capacity building programme for the tribal volunteers from Koraput district of Odisha

A skill training programme on value addition of jackfruit, banana,

ginger and tamarind was conducted for selected tribal

volunteers and staff of ORMAS, an NGO functioning with the support of District Administration of Koraput of Odisha from 26th to 28th June, 2023 at the Agro-Processing Training cum Incubation Centre (APTIC) of KVK-Alappuzha. A total number of 20 participants attended the programme.



Participants of the skill training programme

District level agricultural seminar and exhibitions

KVK participated in 'Karappuram Kazhcha' – 10 days long Kisan Mela conducted at St. Michels College, Cherthala organized by the Department of Agriculture Development and Farmer's Welfare,

Government of Kerala from 19th to 28th May, 2023.

View of KVK stall at Karappuram Kazhcha



Trainings/ Meetings

Training	No. of Programmes	Participants		
		Men	Women	Total
On campus	9	94	74	168
Online	1	36	36	72
Off campus	13	225	178	403
Sponsored	2	49	30	79
Total	25	404	318	722



COMMERCIALIZATION OF TECHNOLOGY

A total of 13 MoAs were executed with entrepreneurs on nine different technologies worth Rs. 2.95 lakhs. These include, production of Kalparasa® and

natural coconut sugar, virgin coconut oil, carbonated tender coconut water, coconut chips, Kalpa Soil Care, coconut milk powder, Kalpa Poshak, Kalpa

Vardhini and coconut water based value added products as detailed below.

Name of Technology Commercialized	Date of Signing MoA	Value (in INR)	To Whom Commercialized
Collection of fresh and hygienic Kalparasa and production of natural coconut sugar	01 st May, 2023	1,00,000	Yadiyuru Farmer Producer Company Ltd., Shri. Siddalingeshwara Temple Road, Yadiyuru Kunigal, Tumkur District – 572142, Karnataka.
Production of Virgin Coconut Oil (VCO)	03 rd May, 2023	40000	Mrs. Renjini P. Nambiar , w/o Ajithkumar M, Puthusery House, Kaneeladukkam, Karivedakam P.O., Kasaragod, Kerala-671541.
Preservation of Carbonated Tender Coconut Water	22 nd May, 2023	25000	The Executive Officer, Lakshadweep Khadi and Village Industries Board, Kavaratti, Kavaratti P.O. – 682555, U.T. of Lakshadweep.
Preservation of Carbonated Tender Coconut Water	22 nd June, 2023	25000	M/s Maniyur Food Park L.L.P, Cherandathur P.O., Thiruvallur Via., Calicut Dist.- 673541, Kerala.
Coconut Chips	17 th April, 2023	25000	Mr. N. P. Subramaniam, M/s. Protaman Foods, 4-63/64, Thondamuthure Road, Parameshwaranpalayam, Coimbatore - 641109, Tamil Nadu.
Coconut Chips	22 nd May, 2023	25000	The Executive Officer, Lakshadweep Khadi and Village Industries Board, Kavaratti, Kavaratti P.O. – 682555, U.T. of Lakshadweep.
Kalpa Soil Care - Coir pith composting technology (urea-free)	30 th June, 2023	25000	M/s. Stars of Pantnagar Pvt. Ltd., 5/558, Vikas Khand Gomti Nagar, Lucknow, Uttar Pradesh – 226010.
Foam mat dried coconut milk powder	22 nd May, 2023	10000	The Executive Officer, Lakshadweep Khadi and Village Industries Board, Kavaratti, Kavaratti P.O. – 682555, U.T. of Lakshadweep.
Kalpa Poshak	22 nd May, 2023	10000	Odanadu Farmer Producer Company Ltd., FPO
Kalpa Vardhini	05 th June, 2023	10000	Senior Scientist & Head, ICAR Krishi Vigyan Kendra, Mitraniketan, Mitraniketan P.O. – 695543, Vellanad, Thiruvananthapuram
Matured coconut water based value added products	17 th April, 2023	Complementary with VCO	Mr. N. P. Subramaniam, M/s. Protaman Foods, 4-63/64, Thondamuthure Road, Parameshwaranpalayam, Coimbatore - 641109, Tamil Nadu.
Matured coconut water based value added products	03 rd May, 2023	Complementary with VCO	Mrs. Renjini P. Nambiar , w/o Ajithkumar M., Puthusery House, Kaneeladukkam, Karivedakam P. O., Kasaragod, Kerala-671541.
Matured coconut water based value added products	22 nd May, 2023	Complementary with chips	The Executive Officer, Lakshadweep Khadi and Village Industries Board, Kavaratti, Kavaratti P.O. – 682555, U.T. of Lakshadweep.



PARTICIPATION IN NATIONAL SEMINARS/ SYMPOSIA/ CONFERENCES/ WORKSHOPS/WEBINARS

Name and Designation	Title	Place and Date
Dr. Indhuja, Senior Scientist	National workshop on 'Geobiotics supplementation through millet beverage and fermented millet curd'	CSIR-CFTRI, Mysuru, from 12 th to 13 th April, 2023
Dr. Niraj V., Head (Acting) & Principal Scientist	Virtual workshop for Pacific region farmers and agricultural officers on 'In situ coconut conservation	Pacific Community (SPC), Suva, Fiji, from 24 th to 25 th April, 2023
Dr. Regi J. Thomas, Principal Scientist	Meeting of Central Sub-Committee on Crop Standards, Notification and Release of Varieties for Horticultural Crops	Krishi Bhawan, New Delhi, (Online) on 04 th May, 2023
Dr. Thamban C., Principal Scientist (Agrl. Extension)	Agriculture in Kerala-Challenges and future - 5 th International Congress on Kerala Studies	AKG Centre for Research and Studies, Thiruvananthapuram, from 20 th to 22 nd May, 2023
Dr. S. Elain Apshara, Principal Scientist (Hort.), Dr. Saneera E. K., Scientist (Agri. Entomology), Dr. Chaithra M., Scientist (Plant Pathology)	CARDS 2023 - CRC Annual research and development symposium: 'Improving cocoa productivity and quality while managing risks'. (Online)	Cocoa Research Centre (CRC), University of the West Indies, St. Augustine Campus, Trinidad, from 24 th to 25 th May, 2023
Dr. A. Joseph Rajkumar, Principal Scientist Dr. Merin Babu, Dr. M. Shareefa, Senior Scientists	International Conference on Kerala Studies	Devamatha School, Thrissur, on 21 st May, 2023
Dr. K. Muralidharan, Principal Scientist, Dr. Rajkumar, Scientist (Nematology) and Dr. Bhavishya, Scientist	30 th Swadeshi Science Congress	National Institute of Technology (NIT), Calicut, for presentation from 25 th to 27 th May, 2023
Dr. K. Muralidharan, Head (Acting), Div. of Social Science, Dr. Ramesh S. V., Dr. R. Sudha, Senior Scientists and Dr. Bhavishya, Scientist	15 th Swadesh Prem Jagriti Sangosthi- 2023- Global Conference on 'Precision horticulture for improved livelihood, nutrition and environmental services'	Jalgaon, Maharashtra 28 th to 31 st May, 2023
Dr. S. Elain Apshara, Principal Scientist (Hort.), Dr. Chaithra, M., Scientist (Plant Pathology), Dr. Saneera, E. K., Scientist (Agri. Entomology)	National Conference on 'Cocoa development in India- Challenges and opportunities'	Keladi Shivappa Nayak University of Agricultural and Horticultural Sciences. Shivamogga, Karnataka, on 03 rd June, 2023
Dr. Anitha Kumari, Principal Scientist	Zonal workshop of ATARI	ATARI, Bengaluru, from 20 th to 24 th June, 2023



International Yoga Day -2023

At Kasaragod, yoga exercises and training for all the employees were conducted as a part of the programme. On 21st June, 2023 the formal function was presided over by Dr. K. Muralidharan, Acting Head, Division Social Sciences. He emphasised the

international significance of the programme and its relevance in the present day context, including the working environment. Smt. K. Sreelatha, yoga trainer and former CTO, ICAR-CPCRI was the chief guest.



CPCRI staff performing yogasana

World Environmental Day 2023 - 'Lifestyle for environment'

World Environmental Day was celebrated at ICAR-CPCRI, Kasaragod on 5th June, 2023 on the theme 'Solutions to plastic pollution'. Dr. C. George Thomas, Chairman, Biodiversity Board of Kerala was the chief guest of the programme. He narrated the historical aspects which led to the observance of World Environment Day by the UNO. He also highlighted the importance of the sustainable needs of the growing population in the world. Dr. K. B. Hebbar, Director delivered a talk on the issues of plastic and its management, especially in agricultural farms. He also called upon the staff to imbibe the essence of the Swacch Bharat campaign for a clean campus. A fruit tree saplings planting programme was held in an exclusive block as a part of the celebrations in the main office campus, residential campus and around the Kendriya Vidyalya school ground.

A seminar was organized on 5th June, 2023, World Environment Day, at Bedadka in connection with the inauguration of distribution of seedlings of the superior coconut ecotype 'Bedakam Thengu' in collaboration with Bedadka Grama Panchayat and Krishi Bhavan. Dr. George Thomas, Chairman, Kerala State Biodiversity Board inaugurated the seedling distribution.

Dr. K. B. Hebbar, Director, ICAR-CPCRI inaugurated the 'Haritha Sabha' of Bedadka Grama Panchayat.

At Kayamkulam, in collaboration with the NSS Unit at MSM College, Kayamkulam, KVK organised World Environment Day celebrations on the college campus on 6th June, 2023. An awareness talk on 'good farming practises for environmental protection and vegetable seedling' were held.

ICAR- KVK, Kasaragod organized different programmes on 5th June, 2023. Two awareness programmes conducted at Padannakad and Poinachi. During the event, 200 numbers of mango seedlings were distributed among the students of two schools. A special awareness workshop also organized in

collaboration with ICAR-CPCRI Kasaragod for the Scheduled Tribes at Kollangana, Madhur panchayath on the theme 'Climate smart agriculture through crop diversification'. Dr. K. B. Hebbar, Director, ICAR-CPCRI Kasaragod was the chief guest for the programme. A total of 82 farmers belong to ST community participated in the programme.

World Environment day was celebrated on 5th June, 2023 at ICAR-CPCRI, Regional Centre, Mohitnagar. Local people (40 nos.) were participated in this Occasion. Swami Sivapremananda Jii Maharaj of Ramakrishna Moth graced the Occasion. Seedlings of fruit crops and forest plants were distributed among the participants.



Dr. K. B. Hebbar, Director, ICAR-CPCRI handing over a Bedakam coconut seedling to farmer

World Intellectual Property Day—'Women and IP: Accelerating Innovation and Creativity'

ICAR-CPCRI, RC, Kahikuchi celebrated 'World Intellectual

Property Day, on 26th April, 2023. The programme was graced by

Dr. K. Balachandra Hebbar, Director, ICAR-CPCRI, Kasaragod and Dr. G. Kadirvel, Director, ATARI Zone VI, Guwahati. There was a talk on the theme "Women and IP: Accelerating Innovation and Creativity" by Dr. Alpana Das, Principal Scientist and SIC, ICAR-CPCRI, RC, Kahikuchi. In the auspicious occasion, 'MoA for Enhancing Adoption of Scientific Production and Processing Technologies of Arecanut in NE' was signed in between ICAR-CPCRI, Kasaragod and ICAR-ATARI, Guwahati, Assam.



Dr. Alpana Das delivering a talk on women and IP



DISTINGUISHED VISITORS

Shri. K. Krishnankutty, Minister for Electricity, Govt. of Kerala visited ICAR-CPCRI, Regional Station, Kayamkulam and ICAR-KVK-Alappuzha on 9th May, 2023. He interacted with the staffs of the station and visited the experimental gardens. He mentioned that the technologies should focus upon the maximisation of farmer's income with more emphasis on value addition.



Shri. K. Krishnankutty, Minister along with staff of Kayamkulam

Dr. Himanshu Pathak, Secretary, DARE and Director General, ICAR, New Delhi visited ICAR-CPCRI, Research Centre, Mohitnagar, on 8th April, 2023



Release of CPCRI publications by Dr. Himanshu Pathak, Hon'ble Secretary, DARE and Hon'ble DG, ICAR at Mohitnagar

Dr. Sudhakar Pandey, ADG (Flower, Veg, Spices and Medicinal

Plants), ICAR, New Delhi visited ICAR-CPCRI, Research Centre,

Kahikuchi on 15th May, 2023.

Dr. S. P. Das, Director, ICAR-National Research Centre for

Orchids, Pakyong, Sikkim visited ICAR-CPCRI, Research Centre,

Kahikuchi on 28th April, 2023.

Under the initiative led by Agriculture Minister Shri. P. Prasad at Haripad, experts from ICAR-CPCRI, KAU and officials assessed farm issues. Launched on 26th

April, 2023, the team, led by Dr. A. Joseph Rajkumar, suggested solutions for three gardens at Thrikunnapuzha to boost farmers' income sustainably. Dr. Regi

Jacob Thomas, also presented on coconut varieties at the 'Krishi Darsan' programme on 27th April, 2023, in Haripad.



NEW PROJECTS/ INITIATIVES

A new project on 'Global Value chain analysis of plantation crops of India with special emphasis on food

safety standards' funded by NASF has been sanctioned with an outlay of Rs. 68.25 lakhs to

Dr. S. Jayasekhar, Principal Scientist, Kasaragod, for a period of three years from June 2023.



PERSONALIA

PROMOTIONS

Name of the staff	From (designation)	To (designation)	w.e.f.
Dr. S. Jayasekhar	Senior Scientist	Principal Scientist	10 th April, 2021

TRANSFERS

Name of the staff	From (Place)	To (Place)	w.e.f.
Shri. M. Ravindran, Assistant Administrative Officer	ICAR-CPCRI, Research Centre, Kidu	ICAR-CPCRI, Kasaragod	12 th May, 2023
Smt. Bandela Sravanthi, Scientist	ICAR-CPCRI, Kasaragod	ICAR-CCRI, Nagpur	04 th May, 2023

Name of the staff	From (Place)	To (Place)	w.e.f.
Dr. Neema M., Scientist	ICAR-CPCRI, Kasaragod	ICAR-IIOPR, Palode, Thiruvananthapuram	12 th May, 2023
Shri. Ajith Kumar K., Senior Technical Officer(CE)	ICAR-CPCRI, Regional Station, Vittal	ICAR-CPCRI, Kasaragod	05 th June, 2023
Shri. Santhosh Kumar P., Senior Technical Assistant	ICAR-CPCRI, Regional Station, Vittal	ICAR-CPCRI, Kasaragod	12 th June, 2023
Shri. K. R. Nithianandan, Assistant Administrative Officer	ICAR-CPCRI, Kasaragod	ICAR-DCR, Puttur	28 th June, 2023

RETIREMENTS

Name of the staff	Designation	Place	Date
Shri. K. J. Sebastian	Senior Technician	CPCRI, Kasaragod	30 th April, 2023
Shri. M. Manamohan	Senior Technical Officer	CPCRI, RC, Kidu	30 th April, 2023
Shri. K. Raghavan	Senior Technical Assistant	CPCRI, Kasaragod	31 st May, 2023
Shri. A. R. Padmanabha Naik	Senior Technician	CPCRI, Kasaragod	31 st May, 2023
Smt. V. Madhavikutty	Assistant	CPCRI, RS, Kayamkulam	31 st May, 2023
Shri. Dasappa Gowda	Skilled Support Staff	CPCRI, RC, Kidu	31 st May, 2023



ICAR-CPCRI, Kasaragod, Kerala



हर कदम, हर डगर
किसानों का हमसफर
भारतीय कृषि अनुसंधान परिषद

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