



NEWSLETTER



ICAR-CENTRAL ISLAND AGRICULTURAL RESEARCH INSTITUTE
Port Blair, Andaman and Nicobar Islands

Vol : XVI-IV

October - December, 2024



हर कदम, हर उगर
किसानों का हमारा घर
भारतीय कृषि अनुसंधान परिषद

AgriSearch with a human touch

IN THIS ISSUE

- [Research Highlights](#)
- [Schedule Tribe Component](#)
- [Important Events Held](#)
- [Deputation abroad/ PG studies/](#)
- [Awards/ Honours/Recognition](#)
- [Trainings/ Meetings/Campaign](#)
- [Publication](#)
- [TOT including radio talks/ TV](#)
- [programme broadcast trainings](#)
- [IPRs/Commercialization of](#)
- [Technology](#)
- [Women empowerment activities/](#)
- [trainings](#)
- [Personnel](#)

From the Director's Desk

World Fisheries Day

World Fisheries Day, celebrated annually on November 21st, emphasizes the critical importance of sustainable fisheries with the need to protect aquatic ecosystems and the livelihoods of fishing communities. World Fisheries Day was established in 1997 when the "World Forum of Fish Harvesters and Fish Workers" convened in New Delhi, bringing together representatives from 18 countries to form the "World Fisheries Forum". This day highlights the need for sustainable fishing practices, raises awareness on threats like overfishing and habitat destruction, and advocates for the rights of small-scale fishers, who are often among the most vulnerable communities worldwide. The celebration serves to inspire global action towards the sustainable management of fisheries, ensuring healthy ecosystems and resilient fish stocks. The theme for World Fisheries Day 2024, *India's Blue Transformation: Strengthening Small-Scale and Sustainable Fisheries*, underscores India's commitment to inclusive growth and sustainable practices in the fisheries sector.



In India, World Fisheries Day holds special significance due to the country's prominent role in global fisheries and aquaculture. As the world's 3rd largest fish producer, 2nd largest aquaculture nation and the largest producer of shrimp, India plays a crucial role in ensuring domestic food security and contributing to the global seafood market. On this day, India joins the clarion call for sustainable fishing practices, marine conservation, and the empowerment of fishing communities, reaffirming its commitment to safeguarding the future of global seafood production. The Andaman and Nicobar Islands, with a coastline spanning 1,912 km, an Exclusive Economic Zone (EEZ) covering 0.6 million sq. km., and a continental shelf of 35,000 sq. km., play a crucial role in India's marine fisheries sector. The region's marine fisheries have a harvestable potential of 1.48 lakh tonnes, including 60,000 tonnes from oceanic fisheries, which provide significant livelihood and employment opportunities. ICAR-CIARI, in collaboration with the Department of Fisheries of the Andaman and Nicobar Administration, focuses on the sustainable utilization of marine fisheries resources, with a special emphasis on deep-sea fisheries resources in the Andaman and Nicobar Islands.

RESEARCH SPOTLIGHT

[Cinnamon](#)

[Piper sarmentosum](#)

[Garcinia](#)

[Elephant Foot Yam](#)

[Pandanus](#)

[Padauk](#)

[IFS](#)

Chakurkar

Dr. Eaknath B. Chakurkar

Research Highlights

Biochemical analysis of true cinnamon

Ajit Arun Waman and Pooja Bohra

In continuation to the biochemical studies in identified 24 accessions of true cinnamon, determination of coumarin content along with check variety- Konkan Tej was repeated during this period. It was observed that an accession was

found to be completely free from coumarins, while several accessions had coumarin content lesser than the test variety. Nevertheless, all the tested samples had coumarin levels much lower than the reported levels of cassia.

Evaluation of collections of *Piper sarmentosum*

Ajit Arun Waman and Pooja Bohra

Six collections of Andaman Pipali (*Piper sarmentosum*) were collected from different islands, mass multiplied and established under field condition with *P. longum* var. Viswam as the check. The parameters varied among collections of *P. sarmentosum* and significantly longer (7.98 to 9.16 cm) and wider (6.31 to 7.59 cm) leaves were

noticed among the collections than the check. All the collections showed significantly longer petioles and had heavier leaves than the check. Variability was also noticed in plant growth parameters and fruit characters among the collections.

Seed fats from *Garcinia* species

Pooja Bohra and Ajit Arun Waman

In order to understand the variability of seed fat content in the collections of *Garcinia*, an experiment was conducted. Fat content in the seeds was found to be in the order *G. dhanikhariensis* > *G. gummi-gutta* > *G. kydia* > *G. xanthochymus* > *G. cowa*. Further, intra-specific variations

were observed in the collections of *G. dhanikhariensis* and *G. gummi-gutta*. Fat content also showed variation when determined in four fruit developmental stages in *G. xanthochymus*.

Grafting studies in underutilized fruits

Pooja Bohra and Ajit Arun Waman

In order to standardize the grafting procedure in locally popular *khatta phal* (*Baccaurea ramiflora*), rootstocks of three sizes were used for grafting. Results suggested rootstock thickness dependent grafting success. Further, inter-specific grafting studies were conducted in the genus

Garcinia. *Garcinia gummi-gutta* and *G. kydia* as scion materials were tried on *G. dhanikhariensis*, *G. indica* and *G. gummi-gutta* rootstocks. Potential of endemic *G. dhanikhariensis* as a potential rootstock for mass multiplication of these species was observed.

Optimal sowing windows and varieties using crop simulation models:

Abhilash and T. Subramani

An experiment is being conducted at Bloomsdale Farm during the *Kharif* 2024 season to determine the suitable cropping window and varieties for a rice-based cropping system under the island ecosystem. The study focuses on quantifying the microclimate of rice and green gram crops across varied sowing environments, understanding the relationship between their growth and yield with weather parameters, and identifying the optimal sowing windows and varieties using crop simulation models. Initial observations revealed the occurrence of False Smut disease in the CARI Dhan 6 variety during the 2nd week of

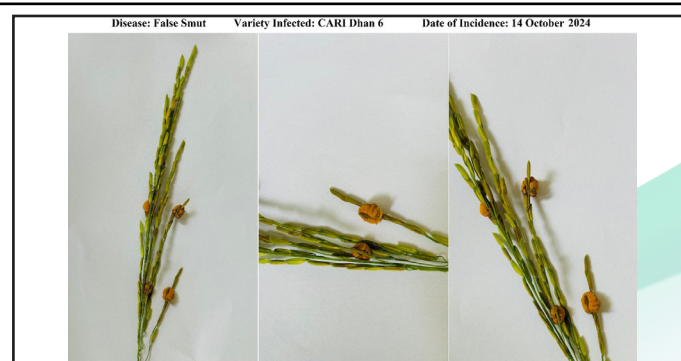


Plate 1. Optimal sowing windows and varieties using crop simulation models

October in the first sowing date (D1; 01.06.2024), marking its first incidence. Additionally, Gundhi bug infestation was noted in the CARI Dhan 5 and Gayatri varieties during

the 2nd week of November under the second sowing date (D2; 15.06.2024).

Evaluation of purple flesh greater yam

I. Jaisankar and T. Subramani

Eight entries of purple fleshed greater yam along with one national check and a local check were evaluated for tuber yield, tuber shape and tuber flesh colour. The result revealed that, the variety Sree Neelima recorded higher

yield (22.42 t/ha) followed by the entries TGy 20-2. With regard to flesh colour two entries viz., TGy 20-4 and TGy 20-5 are recorded white flesh.



Plate 2. Field view and performance of the purple flesh entries

Farming system involving tuber crops

I. Jaisankar and T. Subramani

The Nicobari tribal communities mainly rely on coconut, tuber crops, pigs and marine fisheries for their livelihood. The tribal farmers clear the forest area cultivate crops in joint family system called *Tuhet*. They mainly grow only Nicobar Aloo (greater yam) along with Cassava and banana mainly for food in the traditional *tuhet* garden in addition to their existing coconut plantation. Community based tuber crops based farming system was demonstrated farmer's field at Harminder Bay, Little Andaman during 2024 in 0.3 ha model involving tuber crops, vegetables, fruits and spices integrated with piggery. Farmers

were distributed with planting materials of tuber crops (Elephant Foot Yam, Colocasia, Sweet potato), Ginger and Piglets. Regular trainings and field visits were organized to upgrade the farming skills of tribal farmers. Prior to interventions, the net income of the *tuhet* was ₹ 77,000 with B: C ratio of 1.26. After intervention of tuber crops-based farming system the net income of the *tuhet* increased to ₹ 2, 27,100 with the B: C ratio of 2.43. The employment generation in the tuber crops-based farming system was 487-man days/ha as compared to 385-man days/ha in their traditional system

High density Elephant Foot Yam cultivation

I. Jaisankar and T. Subramani

The experiment conducted on High density of planting in elephant foot yam revealed that, lower corm yield per plant was recorded in T₇ (60 × 60 cm) at 7, 8 and 9 months (0.983 kg) of planting followed by T₆ (75 × 60 cm) respectively, while individual plant yield was higher in T₄ with plant density of 90 × 60 cm (2.23 kg/plant) and T₂- 90 × 90 cm (1.89 kg/plant) respectively. However, the highest corm yield (34.56 t/ha) was resulted with plant density of 90 × 60 cm (T₄) followed by T₂. The higher yield might be due to higher plant population per ha with closer planting adopted.

The different management practices expressed variations in the net returns and B: C ratio. Higher net income (11,72,649) was recorded in T₂ (90 × 90 cm) followed by T₄ which was mainly due to higher yield/ha. However, the highest B: C ratio of 2.33 was recorded in planting at 90 × 90 cm followed by 90 × 60 cm. Further, planting at 60 × 60 cm and 75 × 60 cm resulted in producing total yield comparable with planting at 90 × 60 cm but the B: C ratio was less in planting with high densities (T₆ and T₇) which may be due to higher seed cost requirement and high cost of production.





Plate 3. Performance of Elephant Foot Yam under High Density planting (Field view)

Growth parameters of *Pandanus* species

I. Jaisankar and T. Subramani

The growth observation of the *pandanus* species were recorded after two year of the planting. The height of the *Pandanus leram* ranged from 115 to 135 cm, *P. tectorius* was 140 to 250 cm and



Plate 4. *Pandanus* germplasm block field view

P. odorifer was 110 to 132 cm.

Distinctness, Uniformity and Stability (DUS) characterization of *Pandanus* species

Distinctness Uniformity and Stability analysis conducted for three *Pandanus* species (*P. leram*, *P. tectorius* and *P. odorifer*) and documented for 15 tree and leaf, 1 each of flower, root and 8 fruit and seed characters.

Accreditation Protocol for Agro forestry Nurseries in Andaman and Nicobar Islands

I. Jaisankar and T. Subramani

Production and access to quality planting material (QPM) are vital criteria for ensuring the success of plantations as well as for upscaling agroforestry. The diversity of tree species has been a challenging task in formulating guidelines for QPM production. The ICAR-CAFRI has so brought out a technical document – Guidelines for Quality Planting Material of Agroforestry Species that has charted out the direction for achieving QPM in tree species. To enable this, the ICAR-CAFRI has brought out this accreditation protocol for agroforestry nurseries. This protocol is based on the fundamental aspects of any nursery which remains the same irrespective of size, nature

and choice of propagation material used. Around ten species which are having the potential agroforestry trees viz., Andaman Padauk (*Pterocarpus dalbergioides*), Noni (*Morinda citrifolia*), Bakri pathi (*Bridelia tomentosa*), Chatai Bamboo (*Gigantochloa andamanica*), Motta Beth (*Calamus andamanicus*), Pynma (*Lagerstroemia hypoleuca*), Bread fruit (*Artocarpus altillis*), Rudraksh (*Elaeocarpus tuberculatus*), Mitha Baji (*Champereia manillana*), Screw Pine (*Pandanus leram*) were developed and documented the accreditation protocol for agroforestry tree seedlings for Andaman and Nicobar.

Phytoconstituents of Noni (*Morinda citrifolia*) wood extracts

I. Jaisankar and T. Subramani

The methanol extracts of Noni wood extracts were subjected to gas chromatography-mass spectrometry (GC-MS). The obtained spectra were analyzed. The methanol extract of wood from noni plant showed many phytoconstituents. A total of 18 classes of phytoconstituents were found. The compound's name, molecular weight, formula and structure were extracted from NIST and PUB med. Out of which two compounds

namely 2-Nitrohept-2-en-1-ol and α -n-Propylether of 11-epi-dihydroartemisinin have been detected for the first time. The highest probability found in components such as (86.5%) 4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-, (69.7%) 4-((1E)-3-Hydroxy-1-propenyl)-2-methoxyphenol, (48.8%) trans-Sinapyl alcohol, (39.1%) 2H-Pyran, tetrahydro-2-(12-pentadecyloxy)- and (36.1%) n-Hexadecanoic acid. Thus the methanol wood



extract shows that the major probability phytochemical possesses Antioxidant, Anti-inflammatory, Antimicrobial

and antitumor activities and is mostly preferred for various therapeutic purposes.

Sequential cropping system under Padauk plantation

I. Jaisankar and T. Subramani

Under *Pterocarpus dalbergioides* based sequential cropping system Bhendi, brinjal, sword bean, vegetable cowpea, sweet corn, cucumber, tapioca, sweet potato, elephant foot yam, palak, radish, papaya, banana, chilli, Burma dhaniya, pine apple, bitter gourd, pumpkin and *Pandanus amaryllifolius* were grown in different months. Among the crops evaluated some of the crops are in vegetative stage and some crops were harvested and the

result revealed that brinjal recorded highest yield of 1.32 kg/plant followed by bhendi 0.81kg/plant. Harvested three bunches of banana with the recorded yield of 5.75 kg/ bunch. Under the system harvested 38 kg of Tapioca tubers, veg. cowpea crop with the yield of 2.6 kg in an area of 10 m² of each. The cultivation of the crop under the tree influenced positively resulted the better height growth of 4.2 m and 6



Plate 5. 0.4 cm DBH in *Pterocarpus dalbergioides*



Plate 6. Cultivation of vegetable and fruit crops under sequential cropping system

Morphological descriptors of desi chicken at Minicoy Islands

S.M. Ajina, T. Sujatha, Y. Gladson, E.B. Chakurkar, A.K. De, Jai Sunder, S. Yelighar Sharath and D.Bhattacharya

Qualitative phenotypic characteristics of desi birds from tribal farming community of Minicoy Island in Lakshadweep Islands were documented in both male and female adult chickens as per guidelines directed by the National Bureau of Animal Genetic Resources (NBAGR), Karnal, India. This study was purely on collection of primary data and involved observations of plumage colour and pattern of desi birds. A sum of 105 male and 110 female birds were randomly selected to document their morphological characteristics such as feather morphology

and distribution, plumage colour and pattern, comb type, skin colour, ear lobe colour, eye colour, and shank colour. The desi chicken from Minicoy Islands are small in size with a short beak, and exhibits a striking multiple plumage colours intricately speckled across its body feathers, tail and neck. Sexual phenotypic characters are significantly distinct from each other. Many varieties of cock and hens were reported with different combination of plumage colours and pattern.



Plate 7. Varieties of Cock



Plate 8. Varieties of hen

Development of treatment measures for the management of parasitic diseases in freshwater fish

J. Praveenraj, Ajit Arun Waman, Chittaranjan Raul and T. Harshangkumar

A herbal oil based formulation was developed for controlling gill fluke and skin fluke infesting freshwater fish. *In vitro* studies conducted demonstrated that the direct

application of the formulation on gill fluke infested gills caused paralysis and eventually mortality of the parasite within 2 minutes post application.

Exploration of fishery, biology and market potential of tuna resources of Minicoy

Y. Gladston and S.M. Ajina

The catch composition of fish species in Fish Aggregating Device (FAD) was recorded., the majority of tuna (>90%) comprises skip jack tuna followed by yellow fin & little tunnies. sThe community-based fisheries management for the conservation of baitfish resources was surveyed and recorded. An experiment on bait fish alternative was done with the cultivated tilapia fingerlings at the tuna pole and line fishing site. A positive sign of acceptance

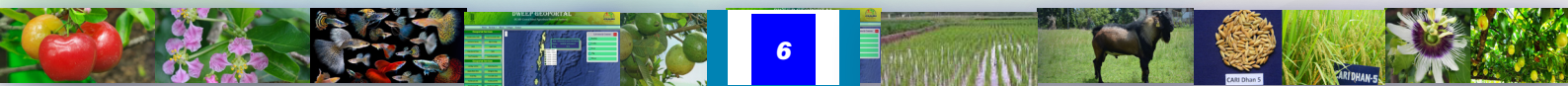
of the alternative bait by tuna was observed on the site. It was estimated that a demand of 7 kilograms of tilapia fingerlings was needed by vessel per day fishing, once the alternative fish scheme was adopted. A total of 88 fish were dissected for biological studies during the period. It was found that fish were the major food item followed by squid, Acetes shrimps, megalopa, baits which were the major food item during the period.

Integrated farming systems for enhancing the sustainable livelihood of the rural tribal community of Minicoy

S.M. Ajina and Y. Gladston

One acre IFS model Coconut based Cattle, Goat- Duck/ Chicken/quail- Fish- Vegetable-fruits, Fodder IFS model developed in the demonstration farm of ICAR-CIARI Regional station Minicoy. It is the first IFS unit in nutrient-deficient, sandy soil of Minicoy. Coconut (Laccadive micro and Laccadive ordinary), Cattle (Kasargod Dwarf) Goat (Konkan Kanyal and Non-descriptive breed), Duck

(Chara chempalli) Chicken (Sasso, Gramashree, Kairali, nadan), Quail (Nandanam); Fish (*Gibelion catla*, *Labio rohita*, *Etroplus suratensis*, *Poecilia sphenops* and IMCs) Vegetable (Tubers, vines, and cucurbits), Fodder (Co5, red napier) introduced and evaluated the performance in the IFS system.



Schedule Tribe Component

Programme	Number	Total no. of beneficiaries
Trainings	7	389
Demonstration	8	340
Input distribution	7	1261

Important Events Held

Hindi Fortnight celebrations

The valedictory program of Hindi Fortnight 2024 was held on 30 September, 2024 at Dr. T. R. Dutta Conference Hall of ICAR-CIARI. On this occasion, a seminar was organized on the topic “Rajbhasha Hindi: A Symbol of Cultural and Social Unity of the Nation.” Dr. Vyas Mani Tripathi, Professor and Head of the Department (Hindi), J.N.R.M., Sri Vijaya Puram, delivered a highly energetic and inspiring guest lecture as the Chief Guest. Dr. Eaknath B. Chakurkar, Director, ICAR-CIARI, in his address, urged all employees to carry out their work in Hindi with devotion and dedication, and encouraged them to spread and promote the use of Hindi with the same enthusiasm.



Plate 9. Hindi fortnight celebrations

Agriculture Education Day (AED) – 2024 celebration

ICAR-CIARI celebrated “Agriculture Education Day” on December 3, 2024, in honor of the birth anniversary of Dr. Rajendra Prasad, the first President of India. ICAR-CIARI organized a series of events for school students from 02-03 December 2024. A total of 37 students from grades 5 to 8 participated in the painting competition on the theme “Showcase the Charm and Beauty of Rural Landscapes and Farming Life,” representing twelve different schools. On the afternoon of 02, December 2024, a speech competition was held for students in grades 9 to 12, with 37 participants from different schools. On 03, December 2024, students from various schools visited the Garacharma campus to explore the research and development (R&D) facilities of

ICAR-CIARI. During the valedictory program, Dr. Lal Ji Singh and Dr. E.B. Chakurkar emphasized agriculture’s importance and encouraged students to consider careers in this diverse field.



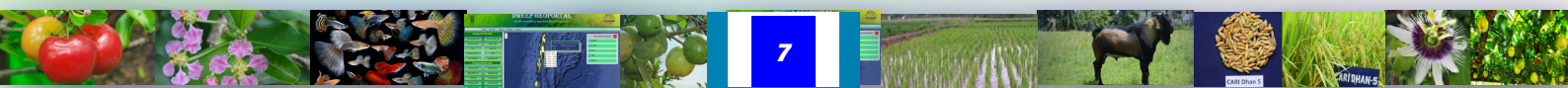
Plate 10. Celebration of Agricultural Education Day 2024

Awareness cum demonstration program on CIFA-Brood-Vac vaccine in fish farming

ICAR-CIARI, KVK conducted an awareness cum demonstration program on the CIFA-Brood-Vac vaccine for fish farming on December 4, 2024, at ICAR-CIARI, South Andaman in collaboration with ICAR-CIFA, Odisha. The objective of the programme was to educate Island farmers and hatchery owners about the benefits of CIFA-Brood-Vac vaccine in fish farming. The Chief Guest, Ms. Jagtap Kalyani Rajendra, applauded the efforts of CIARI in organizing the program and Dr. Eaknath B. Chakurkar, highlighted the way the vaccine will help and



Plate 11. Awareness cum demonstration program on CIFA-Brood-Vac vaccine in fish farming



benefit the fish farming community of the Islands in disease management thereby enhancing their income. Dr Mrinal Samanta, Principal Scientist, ICAR-CIFA explained that the immunity-based vaccine is designed to enhance broadly acting innate immunity in fish spawns. The event, attended by key officials and 55 local fish farmers, aimed to educate participants on the vaccine's benefits for enhancing fish health and productivity

Conference on Organic/Natural Farming

Regional Centre of Organic and Natural Farming (RCONF), Bhubaneswar in association with ICAR-CIARI, Sri Vijaya Puram, Krishi Vigyan Kendra (South Andaman) and Department of Agriculture, Andaman and Nicobar Administration organized “One Day Regional Conference on Organic/Natural Farming (PKVY & LRPs)” on 19th December, 2024 at ICAR CIARI, Sri Vijaya Puram.



Plate 12. Conference on Organic/Natural Farming

The program was chaired by Dr. Apurva Sharma Director of Agriculture, Andaman and Nicobar Administration who emphasized the increase in the economic status of farmers through Organic/Natural Farming. Dr. E.B. Chakurkar Director CIARI mentioned the importance, health benefits, and need of Organic/Natural Farming in today's scenario. Dr. Jagat Singh Regional Director RCONF covered various aspects of Organic/Natural Farming which are principles, present status, and scope in the Andaman and Nicobar Islands. Dr. S K R Ingle Assistant Director RCONF explained about Participatory Guarantee System (PGS), Large Area Certification (LAC), and Paramparagat

Krishi Vikas Yojana (PKVY). Dr. Y Ramakrishna Principal Scientist and Head KVK concluded the program with a vote of thanks. A total of 104 farmers and farm women embarked on the success of the conference.

ICAR-CIARI Conducts Annual Sports - 2024

ICAR-Central Island Agricultural Research Institute (CIARI) successfully conducted its Annual Sports - 2024 with a vibrant prize distribution ceremony during the period from December 10, 2024, to January 3, 2025. The event witnessed enthusiastic participation from the staff members of ICAR-CIARI including project staff, contractual staff and their family members. A total of around 71 events were conducted including various indoor, outdoor and athletic events fostering a sense of harmony, inclusivity and team spirit among the participants. The prize distribution ceremony was conducted at ICAR-CIARI on 03.01.2025. The Chief Guest for the occasion, Mrs. Sandhya Kispotta, a National and International Awardee in Kayaking, graced the event with her presence and addressed the gathering. She highlighted the importance of giving a boost to sports at all levels, especially within organizations, as a way to nurture physical and mental well-being. The Guest of Honour, Shri. S. Sengupta, a renowned cycling coach, shared his insights on the significance of sports in fostering discipline, resilience, and team spirit. Dr. Eaknath B. Chakurkar, Director, ICAR-CIARI appreciated the participants for their enthusiasm and spirit with healthy competition and encouraged the participants to maintain an active lifestyle.



Plate 13. Annual Sports-2024

Deputation abroad/ PG studies/ HRD

- Dr Gladston Y and Ajina SM. Scientists of RS, Minicoy attended training programme on ecosystem modeling and ecosystem service analysis in coastal ecology from 14th-18th October 2024 ICAR-Central Coastal Agricultural Research Institute-Goa (Online mode).
- Approximately 175 training programs were completed by the staff of ICAR-CIARI under the iGOT Karmayogi Portal of Govt of India during the reporting period. Ther training courses and follow up activities were undertaken by Dr R Kiruba Sankar, Nodal officer, HRD, CIARI.

Awards/ Honours/Recognition

Name	Achievement/recognition	Events
K. Saravanan	Young Scientist Award 2024 from Society of Fisheries and Life Sciences, College of Fisheries, Mangaluru, Karnataka	International Workshop on Perspectives, Opportunities, and Challenges for Research in Fisheries Sciences in a Changing Climate, organized at Shivamogga, Karnataka, on November 19, 2024
I. Jaisankar	Certificate of Appreciation	Received from First Captain, Kakana Village, Nancowrie Islands, on December 5, 2024
J. Praveenraj	External expert	Inland Fish Taxonomy and Biodiversity Assessment organized at ICAR-CIFRI, Barrackpore, West Bengal, from December 12 to December 18, 2024
Ajit Arun Waman	Post Graduate Guide/ Teacher	Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, Maharashtra - November 29, 2024
Ajit Arun Waman	Reviewer	Forest Science and Technology (Springer Nature) and Journal of Spices and Aromatic Crops (Indian Society of Spices) - October 15, 2024
Pooja Bohra	Post Graduate Guide/ Teacher	Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, Maharashtra - December 23, 2024
Pooja Bohra	Presiding Officer	Internal Women's Complaint Committee of the Zoological Survey of India, RC, Sri Vijaya Puram.
Pooja Bohra	Reviewer	Journal Acta Physiologia Plantarum (Springer Nature), October 08, 2024

Trainings/ Meetings/Campaign

Name of the trainings/meetings/campaign programme	venue	Date	Participants (M/F/T)	Organizing committee/coordinators
Mega cleanliness drives of offices and Institutional building under Swaccha Bharat Abhiyan	ICAR-CIARI, Sri Vijaya Puram	01/10/2024	40/42/82	I. Jaisankar
Live Telecast of Program on Release of 18 th Installment of PM-Kisan	KVK Nimbudera	05/10/2024	07/08/15	V. Damodaran Yatharth Sharma Subam Debroy Rakesh Dawar
Mahila Kisan Divas	Panchwati, KVK Nimbudera	15/10/2024	3/16/19	V. Damodaran Yatharth Sharma Subam Debroy Rakesh Dawar

Name of the trainings/meetings/ campaign programme	venue	Date	Participants (M/F/T)	Organizing committee/ coordinators
Launch of various initiatives related to agricultural and animal husbandry sector by Honourable Prime Minister of India	ICAR-CIARI Sri Vijaya Puram	05/10/2024	10/12/22	Y. Ramakrishna Pooja Kapoor Sushma
Special Campaign 4.0 Institutionalizing Swachhata and Reducing Pendency	ICAR-CIARI Sri Vijaya Puram	11/10/2024 to 15/10/2024	06/06/12	Mohit Tanmay Paul
Exposure visit on fisheries and allied activities at ICAR-CIARI for M.Sc. students with faculty from Pondicherry University, Brookshabad Campus	ICAR-CIARI Sri Vijaya Puram	16/10/2024	21/10/31	K. Saravanan J. Praveenraj R. Kiruba Sankar Chittaranjan Raul
World Food Day	KVK Nimbudera	16/10/2024	15/01/16	V. Damodaran Yatharth Sharma Subam Debroy Rakesh Dawar
Training on scientific cultivation of sesame: A potential oil-seed crop for island condition” in collaboration with Division of Field Crop Improvement & Protection Section	Nimbudera and Ramnagar	16/10/2024 to 18/10/24	39/04/43	P. Prabhu Rakesh Dawar V. Damodaran Yatharth Sharma Subam Debroy
Training on “Organic Tuber crops cultivation and value addition of tuber crops for sustainability” in collaboration with AICRP on Tuber crops	Shantipur Community Hall, Swadesh Nagar	21/10/2024 to 23/10/2024	19/14/33	V. Damodaran Yatharth Sharma Subam Debroy Rakesh Dawar
Awareness programme on ‘Bioprospection of native horticultural crops of the Islands’	ICAR-CIARI Sri Vijaya Puram	22/10/2024	24/52/76	Ajit Arun Waman Pooja Bohra Raj Narayan
Exposure visit of students from Tagore Government College to KVK	KVK, South Andaman	23/10/2024	42/48/90	Y Ramakrishna Pooja Kapoor Sushma Mohit Tanmay Paul
Awareness Programme on National Surveillance Programme for Aquatic Animal Diseases (NSPAAD)	Collinpur South Andaman	29/10/2024	13/06/19	K. Saravanan J. Praveenraj R. Kiruba Sankar Chittaranjan Raul
Exposure visit of teacher trainees of Tagore Government College of Education, Sri Vijaya Puram to the Horticultural fields	ICAR-CIARI Sri Vijaya Puram	23/10/2024	23/74/97	Ajit Arun Waman



Name of the trainings/meetings/ campaign programme	venue	Date	Participants (M/F/T)	Organizing committee/ coordinators
Importance of water quality management in aquaculture: Best management practices and strategies for sustainable fish farming	Radhanagar Gram Panchayat, Diglipur	4/11/2024 to 8/11/2024	28/7/35	V. Damodaran Subam Debroy
Hands on training on noni extract, immunity booster tonic	RS Minicoy	10/11/2024	15/2/17	Y. Gladston S.M. Ajina Shareefudden H. Arif M.I. R Kiruba Sankar T. Sujatha E.B Chakurkar
Awareness on Best management practices in livestock & poultry for the welfare of tribal livestock farmers of Lakshadweep & Input Distribution under STC at Minicoy, Lakshadweep	RS Minicoy	11/11/2024	18/02/20	
Hands on training on fish-based poultry feed	RS Minicoy	11/11/2024 to 12/11/2024	15/2/17	
Training programme on coconut shell based handicrafts (By Coconut Development Board in collaboration with ICAR-CIARI)	Swadesh Nagar Community Hall	18/11/2024 to 23 /11/2024	0/14 /14	V. Damodaran Yatharth Sharma
Training program on Integrated Farming System for Sustainable Agriculture	Shyamkund village Bakultala	20/11/2024 to 22/11/2024	7/23/30	V. Damodaran Yatharth Sharma Subam Debroy Rakesh Dawar
Field day on ‘‘Tuber crops diversity and scientific Tuber crops cultivation for improving the food security of Islanders’’	Garacharma Research Farm, ICAR-CIARI, Sri Vijaya Puram	20/11/2024	11/13/24	I. Jaisankar Y. Ramakrishna Mohit Sushma Tanmay Paul
World Fisheries Day	Betapur Fish Landing Centre, KVK Nimbudera	21/11/2024	22/0/22	V. Damodaran Yatharth Sharma Subam Debroy Rakesh Dawar
Awareness Programme on Antimicrobial Resistance (AMR) in the context of One Health	Wandoor, South Andaman	22.11.2024	20/14/34	Jai Sunder K. Saravanan J. Praveenraj Y. Ramakrishna
World Soil Day	PM Shri GSS School, Swadesh nagar, KVK Nimbudera	05/12/2024	30/30/60	Yatharth Sharma Rakesh Dawar

Name of the trainings/meetings/campaign programme	venue	Date	Participants (M/F/T)	Organizing committee/coordinators
Achieving Nutritional Security for Farm Families through Nutri-garden	ICAR-KVK Nimbudera	16/12/2024 to 18/12/2024	09/11/20	Yatharth Sharma Subam Debroy Rakesh Dawar
Income generation through value addition in coconut	ICAR-KVK South Andaman	18/12/2024 to 19/12/2024	00/15/15	Pooja Kapoor Y Ramakrishna Sushma Mohit Tanmay Paul
Exposure visit of Assistant Plant Care Takers (Differently Able) to the Horticultural fields	ICAR-CIARI Sri Vijaya Puram	20/12/2024	17/06/23	Ajit Arun Waman

Publication

Research publications

- Gupta, S., Bohra, P., Waman, A.A. and Budhwar S. (2024). Storage studies in culinary paste prepared from underutilized medicinal spice - mango ginger (*Curcuma mangga* Val. et Zijp.). *Current Agriculture Research Journal* **12**(3): 1268-1275.
- Praveenraj, J., Roy, S., Seth, J.K., Kumari, R.M., Saravanan, K. and Kiruba-Sankar, R., 2024. Infestation of Isopod Parasites *Renocila bijui* (Crustacea: Isopoda: Cymothoidae) in Two New Host Fish Species from Andaman. *National Academy Science Letters*, <https://doi.org/10.1007/s40009-024-01451-y>
- Kumar, K.V., Swathi, M., Prajakta, Bokade, P., Bharath, V., Kumari, S., Sunder, J., Hemadri, D., Shome, B.R. & Balamurugan, V. (2024). Emrging and changing pattern in prevalcne of Anti-leptospiiral Antibodies Against Different Serogroups in Livestock in Andaman-Islands Ecosystem. *Proceeding of National Academy of Science India, Section B Biological Sciences*. <https://doi.org/10.1007/s40011-024-01589-1>
- R, Kiruba-Sankar., Salim, S.S., Prakasan, S., Deepitha, RP., Haridas, H., Saravanan, K., George, Z., Pushpalata, S., Raihana, R., Ray, HK (2024) Livelihood assessment of women seafood vendors during pandemic restrictions in Andaman and Nicobar Archipelago, India. *Indian Journal of Fisheries*. 71(4): 124-130
- Jai, Sunder., De, A.K., Sujatha, T., Chakraborty, G., Mayuri, S.C., Bhattacharya, D., Alyethodi, R.R., Chakurkar, E.B. Isolation and Molecular Characterization of *Corynebacterium pseudotuberculosis* from Goats in Andaman and Nicobar Islands, India. *Microbiol. Res.* 2024, 15, 2274–2285. <https://doi.org/10.3390/microbiolres1504015>
- Saravanan, K., Praveenraj, J. and Kiruba Sankar, R. 2024. Fishing For Aquatic Animal Diseases in Andaman and Nicobar Islands: Insights From Disease Surveillance. *ARCC Journals (Indian Journal of Animal Research)* <https://arccjournals.com/blog/fishing-for-aquatic-animal-diseases-in-andaman-and-nicobar-islands-insights-from-disease-surveillance>
- Waman, A.A., Bohra, P., Maheswarappa, H.P., Jerard, B.A. and Sumitha, S. (2024). Culantro (*Eryngium foetidum* L.): a profitable intercrop in arecanut plantations for diversification of island agriculture. *National Academy Science Letters*, <https://doi.org/10.1007/s40009-024-01499-w>
- Zachariah, George., Nandi, P. R., Chakurkar, E. B., Perumal, P., De, A. K., Batabyal, S., Jai Sunder, Alyethodi, R. R., Sawhney S. and Mandal, D. (2024). Assessment of sexual maturity and testicular morphometrics in males of Andamani pigs under tropical humid island ecosystem of Andaman and Nicobar Islands. *Assessment of sexual maturity and testicular morphometrics in males of Andamani pigs under tropical humid*

island ecosystem of Andaman and Nicobar Islands. Journal of the Andaman Science Association. 29(2), 172-180.

Manual/popular articles

Jai, Sunder., K, Saravanan. and J, Praveenraj. 2024. Antimicrobial Resistance (AMR) in Livestock and

Fisheries. <https://ciari.icar.gov.in/AMR.html>

Video Film

- Jai Sunder, Ajit Arun Waman and Asma Bibi (2024). Institute Video Film, Published by the Director, ICAR-Central Island Agricultural Research Institute, Sri Vijaya Puram.

TOT including radio talks/ TV programme broadcast

Title	Date of broadcast	Expert
Agriculture - Green revolution Live phone in programme in Doordarshan	24/10/2024	Y. Ramakrishna
Entrepreneurship development through goat farming	12/12/2024	Jai Sunder
Freshwater ornamental fish farming	19/12/2024	J. Praveenraj

IPRs/Commercialization of Technology

Technology License Agreement signed for Dweep tickure

Technology License Agreement was signed on 17 December, 2024 for the technology “Dweep tickure” with Panchajanya Enterprises, Bengaluru Scientific team: Dr. T. Sujatha, Dr. Jai Sunder, Dr. D. Bhattacharya, Dr. E.B. Chakurkar and Dr. A.K. De.

Islands and a dwarf tender nut variety *Dweep Sona* with yellow coloured fruits for cultivation in Andaman and Nicobar Islands and Kerala seeds shall be the notified varieties for India for Seed production for the purposes under the Seeds Act, 1966 (54 of 1966) and shall be sold for the purpose of agriculture in the States or Union territories, with effect from the date (13.11.2024) of publication of this notification in the Official Gazette, CG-DL-E-14112024-258647, Dt. 13.11.2024, Ministry of Agriculture and Farmers Welfare (Department of Agriculture and Farmers Welfare), Government of India.

Two Dwarf coconut varieties Notified in the Official Gazette

A dwarf tender nut variety *Dweep Haritha* with green coloured fruits for cultivation in Andaman and Nicobar

Women empowerment activities/trainings

Workshop on Sexual harassment at the workplace and AIDS control program

On December 9, 2024, ICAR-CIARI, Sri Vijaya Puram hosted a significant workshop focusing on the prevention, prohibition, and redressal of sexual harassment against women in the workplace, in alignment with the Prohibition of Sexual Harassment (POSH) Act of 2013. The workshop featured a guest lecture by Advocate Smti. Rinku Narayan from the District and Sessions Court of A&N Islands, who provided an in-depth overview of the history and implications of the POSH Act. Concurrently, Dr. Jahanara Yasmeen, Deputy Director (MS&IEC) of the A&N AIDS Control Society, raised awareness about AIDS control, highlighting the intersection of health and safety in workplace environments. In his closing remarks, Dr. E.B. Chakurkar, Director, ICAR-CIARI, encouraged

women to assertively voice their experiences regarding workplace harassment. The program concluded with a vote of thanks delivered by Shri. Kanishk Bhukar, Administrative Officer at ICAR-CIARI, underscoring the institution’s commitment to fostering a safe and respectful work environment.



Plate 14. Workshop on Sexual harassment at the workplace and AIDS control program

Participation in seminars/ symposia/ conferences/ workshop

Name	Programme	Details
Sushma	Farmers Field Day Programme on Coconut	Organized by Coconut Development Board, Cochin, Kerala, on October 4, 2024
J. Praveenraj Jai Sunder	INFAR-AMR training programme	Organized by NBFGR, Lucknow from 15 to 17 October, 2024
Ajit Arun Waman	Online lecture on 'Recent threats of invasive insect pests to Indian agriculture: challenges and way forward'	Organized by ICAR-Indian Institute of Spice Research, Kozhikode on October 25, 2024
Eaknath B. Chakurkar R. Kiruba Sankar	Investor meet in Fisheries and Aquaculture	Organized by the Andaman and Nicobar Administration on November 14, 2024, at Swaraj Dweep
Y Gladston Ajina S.M.	COCOFEST-2024 at Lakshadweep	Organized by ICAR-CMFRI from 20 to 22 November, 2024

Distinguished visitors

Dr. J.K. Jena, DDG (Fisheries), visited ICAR-CIARI, Sri Vijaya Puram

Dr. J.K. Jena, Deputy Director General (Fisheries), ICAR, New Delhi, visited the ICAR-Central Inland Agricultural Research Institute (CIARI), Sri Vijaya Puram on 13 November, 2024. During his visit, he interacted with fisheries scientists and all division heads. Dr. Eaknath B. Chakurkar, Director of ICAR-CIARI, provided a brief overview of the institute's achievements and activities. Dr. K. Saravanan, Principal Investigator, gave a presentation

on the progress of the second phase of the National Surveillance Programme for Aquatic Animal Diseases (NSPAAD) project. The meeting concluded with a formal vote of thanks by Dr. R. Kiruba Sankar, Senior Scientist, followed by a visit to the Dweep ornamental fish unit. Dr. J. Praveenraj provided insights into various native and endemic fish showcased at the unit. A visit to the Marine Hill Research Laboratory followed, where Dr. Jena supervised ongoing activities, including mud crab fattening, shrimp biofloc culture, and the marine ornamental fish unit.



Plate 12. Dr. J.K. Jena, DDG (Fisheries), visited ICAR-CIARI

New projects/ initiatives & Infrastructure development

A new externally funded project has been sanctioned under the Department of Science and Technology (DST), New Delhi:

Self-Employment of Nicobarese Tribes through Scientific Validation of Ethno-Veterinary Tribal Medicinal Knowledge and Herbal Product Development.

Project Title: Promotion of Socio-Economic Status and

Total Cost: ₹1,13,11,462

Collaborating Institute: CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow-226015, Uttar Pradesh
Principal Investigator (PI): Dr. T. Sujatha.
Co-Principal Investigators (Co-PIs): Dr. Jai Sunder, Dr. A.K. De, Dr. Anirban Pal and Dr. Pankaj Arind Dhole.

Dr. A.P.J. Abdul Kalam Dweep Ayurvedika

A medicinal plants garden comprising of about 100

species of commercial crops as well as locally used plants by tribal and settler communities was established at the Garacharma campus of the Institute. The garden has herbs, shrubs, climbers, trees, rhizomatous species etc. which have been planted in a thematic manner. The garden was conceptualized and developed.

Team: Dr. Pooja Bohra, Dr. Ajit Arun Waman and Dr. E.B. Chakurkar

Personnel

Promotion

- Shri. Karapaya, Assistant to AAO on 6 November, 2024
- Shri. Prakash Mondal, Assistant to AAO on 6

November, 2024

Retirement

- Shri. R. Dharma Rao, SSS on 31 December, 2024.



Published by : Dr. Eaknath B. Chakurkar, Director
Compiled & Edited by : Dr. Jai Sunder, Mr. D. Karunakaran and Dr. Ajit Arun Waman
Typesetting & Designing : Mrs. Asma Bibi and Mrs. Nazneen Khan
Photographs : Mr. K. Ali Akbar
Address : ICAR-Central Island Agricultural Research Institute, Sri Vijaya Puram-744105, A & N Islands
Phone No. : 03192-250436
Website : <https://ciari.icar.gov.in/>
E-mail : director.ciari@icar.gov.in