Namma Nellu

Activities

April 2024- March 2025

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CIKS

NAMMA NELLU

SNAPSHOT 2024-2025

171 Traditional Rice Varieties conserved in the CIKS TRC

47 Traditional Rice Varieties Seed Production at CIKS TRC

6.8 MT of seeds of **41** Traditional Rice Varieties were distributed to **612** farmers across **14** districts in Tamil Nadu. Covering **680** acres of seed production

10.711 MT Seeds of **9** traditional rice varieties have been procured.

10,000 acres of Traditional Rice Varieties are cultivated by farmers supported by CIKS across districts of Tamil Nadu

465 farmers have been trained on Traditional Rice Varieties cultivation by CIKS through **18** training sessions

25 Training sessions were conducted for Joint Liability Group (JLG) members on Traditional Rice Varieties value-added products.

SNAPSHOT 2024-2025

Karuppu Kavuni and other TRV seeds have been supplied to the Tamil Nadu State Seed Farm

Academic Collaboration to Study the Nutritional and Therapeutic Properties of Traditional Rice Varieties with **MOP Vaishnav College**

150 School Children been given **22** awareness programme on Traditional Rice Varieties, Sustainable Agriculture Technologies and Traditional Health Care

24 Documentation of Agronomic Characteristics has been completed

60 Traditional Rice Varieties were tested for Nutritional Analysis

664 Copies of Traditional Rice Varieties of Tamil Nadu – A Source Book have been downloaded from the CIKS website .

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https://nammanellu.com/
https://ciks.org/

About Namma Nellu

Namma Nellu is an initiative of the Centre for Indian Knowledge Systems (CIKS) dedicated to the conservation, documentation and scaling up of cultivation of Traditional Rice Varieties (TRV) in Tamil Nadu.

Vision: Conserving agro biodiversity for food and nutritional security for all

Mission

- Conserve, cultivate, and promote at least 100 traditional rice varieties (TRVs) of Tamil Nadu known for their nutritional and therapeutic value.
- Ensure decentralized access to quality germplasm of these varieties.
- Establish a strong network to support preservation, cultivation, and marketing efforts.

1. Conservation, documentation, and maintenance of TRVs at the CIKS Technology Resources Centre (TRC)

1.1 TRVs Conservation at the CIKS TRC during Samba 2024

Samba season refers to a major paddy cultivation season in Tamil Nadu. Typically starting in August and lasting until January. During the Samba season of 2024, 171 TRVs were conserved systematically in an area of 1.45 acres in the CIKS experimental farm at Sukkankollai using the System of Rice Intensification (SRI) method. The following activities were undertaken:

1.1.1 A comprehensive plan was developed for varietal selection and field planting. This included choosing suitable varieties, determining planting seasons, spatial distribution at the Technology Resource Centre (TRC), and allocating seeds for farmer distribution.

1.1.2 Seed germination tests were conducted to ensure viability.

1.1.3 Seeds were thoroughly cleaned and all admixtures were removed to maintain varietal purity.

1.1.4 Organic seed treatment was carried out, and seeds were soaked before nursery raising.

1.1.5 Nurseries were carefully raised with proper labeling, using name boards for each variety.

1.1.6 The main field was prepared by ploughing the already planted green manure through multiple rounds of ploughing, followed by plastering and levelling.

1.1.7 Healthy seedlings were transplanted with variety wise name boards, ensuring that gaps were filled appropriately.

1.1.8 Azolla, a nitrogen-fixing aquatic plant, was introduced 10 days after transplanting.

1.1.9 Weeding was done three times using a conoweeder and once manually to maintain crop health.

1.1.10 Applied organic manures twice, mixing vermicompost and neem seed powder in a 5:1 ratio. Foliar sprays with organic growth promoters like panchagavyam and humic acid were also used.

1.1.11 Nonchemical pest control measures were adopted, including bird perches, light traps, yellow sticky traps, pheromone traps, neem cake bags at irrigation inlets, and foliar sprays made from neem seed powder and chili extract.

1.1.12 Rouging was performed five times to remove off-types and diseased plants. Measures were taken to prevent wild pig attacks and to ensure proper water management. Field bunds were cleaned periodically.

1.1.13 A combination of crop protection methods—LED lights, tube lights, focus lights, audio systems with various noises, crackers, GI wire fencing, and manual monitoring was implemented to deter wild pigs, parrots, and sparrows.

1.1.14 Postharvest activities included threshing and winnowing, followed by quality checks for moisture content and storage readiness. Seeds were packed in gunny bags treated with neem cake extract, stacked with spacing as per protocol, and periodically fumigated with herbal pest repellents.

1.1.15 Seeds are now safely stored in the Seed Bank, ready for conservation and cultivation in the upcoming season.

1.1.16 Additional storage pest control measures have been initiated, including light traps, UV insect killers, and the use of neem, pungam, and notchi leaves.

1.1.17 Documentation of 24 agronomic characteristics for each variety has been completed.

2. Seed production at the CIKS TRC and through our network of farmers

For successful seed production, it is essential to use high quality seeds sourced from reliable and authentic origins. The seeds must be healthy and exhibit a strong germination rate.

2.1 TRVs Seed Production during Samba 2024

2.1.1 Seed production for 47 TRVs was initiated on 5.9 acres at CIKS TRC using the SRI method. This was carried out in accordance with the seed production protocol described in the previous section.

2.1.2 In addition, 6.8 MT of seeds from 41 TRVs were distributed to 612 farmers across 14 districts in Tamil Nadu, covering 680 acres for decentralised seed production. Regular monitoring visits were conducted to farmer fields, providing them with guidance on key seed production practices such as rouging, weeding, nutrient management and pest control.,

2.1.3 Farmers have begun harvesting and postharvest processing. Procurement of TRV seeds from these farmers for the upcoming season has commenced. As on 31st March 2025, 10.711 MTs of TRV seeds from 9 TRV have been procured.

2.2 Seed Production for TRVs during Samba and *Navarai* 2025

Navarai is a rice cultivation season in Tamil Nadu, that typically spans from January- February to May. It is also referred to as winter or short-term rice season and it is characterised by its shorter duration compared to Samba season. During the *Navarai* 2025 season (February – May), seed production of six Traditional Rice Varieties (TRVs) was initiated over 4.5 acres at the CIKS TRC. These are considered boutique varieties, known for their nutritional and therapeutic value. Preliminary field activities such as ploughing, application of green leaf manure, seed germination testing and nursery raising were completed.

The six TRVs under cultivation are:

- Kaivari Samba
- Navara
- Kullakkar
- Karungkuruvai
- Rathasali
- Poongkar

Cultivation practices done in Boutique varieties

2.2.1 Gap filling was carried out in all six varieties using existing saplings to ensure uniform plant stand.

2.2.2 Weeding was performed twice using a conoweeder, and the first round of manual hand weeding was initiated.

2.2.3 Neem seed powder extract mixed with chilli powder extract was sprayed twice to manage sucking pests and stem borers.

2.2.4 A range of nonchemical plant protection measures was implemented, including bird perches, pheromone traps, yellow sticky traps, light traps, and neem seed powder bags placed at the irrigation inlet to control soilborne pests below Economic Threshold Levels (ETL).

2.2.5 Panchagavyam was applied at 300 ml per tank as a bio stimulant to promote tillering and plant vigor.

2.2.6 As part of the organic nutrient management, a top dressing of 140 kg neem seed powder mixed with 750 kg vermicompost was applied before the first weeding. Before the second weeding, an additional 2,250 kg of vermicompost and 100 kg of neem seed powder were applied.

2.3 TRV seeds procurement

A total of 10 metric tons of seeds from 7 Traditional Rice Varieties (TRV) have been procured from farmers for the upcoming cultivation season, following verification of key quality parameters such as moisture content, physical and genetic purity, and absence of inert matter.

3. Green Manure Seed Production – Sunn Hemp Cultivation

3.1 Seed production for green manure was initiated with Sunn hemp cultivation over 2.7 acres.

3.2 The crop is currently at the pod formation stage, progressing well toward seed maturity.

Green Manure- Sun Hemp Seed Production

4. TRV Seed Germination Test - Storing of seeds in Cocoon Bags

As part of an experimental initiative to extend the germination life of Traditional Rice Varieties (TRV), a 1 MT capacity GrainPro Cocoon Bag was procured. A total of 1 MT of seeds from 4 TRVs has been stored in this Cocoon Bag using hermetic storage technology.

To support the initiative, a training session on the usage and handling of the Cocoon Bag was conducted on 22nd March 2025. The session was attended by 8 participants and led by Shri Gopinath Vadivel, South India Head of GrainPro India Post Harvest Technology Pvt Ltd.
The training covered:

- Common causes of post harvest losses during storage, transportation, and drying
- How hermetic cocoon bags help reduce wastage
- Different types of cocoon bags and their applications
- The range of agricultural products that can be stored using this technology

This session aimed to build awareness and capacity in scientific and effective storage practices for enhancing seed shelf life and quality.

Cocoon bag training at CIKS-TRC

5. Scaling Up Production and Facilitating Marketing through CIKS Farmers' Networks and Partner Agencies

With support from CIKS, farmers have expanded the cultivation of Traditional Rice Varieties (TRV) to over 10,000 acres across the districts of Chengalpattu, Kancheepuram, Tiruvannamalai, Mayiladuthurai, Nagapattinam, Dindigul, Krishnagiri, Pudukkottai, and Trichy.

Orientation meetings and training sessions were organized to build farmers' capacities in TRV cultivation and sustainable agricultural practices. These sessions covered the entire cultivation cycle—from seed selection to post harvest handling. Regular field monitoring visits were conducted to provide technical support in implementing organic practices for weeding, nutrient management, and plant protection.

To support post harvest operations and enhance farmer incomes, market linkages have been established with:

- Local rice mills
- Farmer Producer Companies (FPCs)
- Local traders
- Private enterprises for bulk sale of TRV grains

In addition, direct marketing channels have been developed with local consumers for the sale of TRV rice and value-added products. As a result, farmers have actively begun marketing both TRV grains and processed products, opening up new income generating opportunities.

6. Capacity building for various activities including sustainable cultivation, seed production, value addition, and input production

CIKS has undertaken a wide range of capacity building initiatives to promote Traditional Rice Varieties (TRV), sustainable agriculture practices, and value-added enterprise development. Key activities during this period included the following:

6.1 TRV Review and Planning Meeting

A review and planning meeting on TRV was conducted on 16th July 2024 to assess progress in TRV cultivation, seed production, characterization, and documentation—both at CIKS–TRC and in farmers' fields. Plans for the 2024–25 cycle was finalized for ongoing and upcoming activities.

6.2 TRV Seed Sowing Festival

A Seed Sowing Festival was celebrated on 3rd August 2024 (Aadi 18 – Adiperukku) at CIKS–TRC to mark the beginning of the agricultural year. The event was attended by over 50 participants, including 15 students and 2 teachers, along with well-wishers, supporters, funders, and the CIKS team.

Seeds from 30 TRV, 6 types of vegetables, and 2 pulses were sown during the event.

TRV Seed Sowing Festival

6.3 Staff Capacity Building and Training Initiatives

6.3.1 Training on Biochar and Humic Acid Preparation

On 14th August 2024, a specialized training session on the preparation and application of biochar and humic acid was conducted for the CIKS staff team. The session was facilitated by Dr. Sugumar and Dr. Arunkumar from Murugappa Chettiar Research Centre (MCRC), Chennai. The training covered:

- Raw materials required
- Necessary equipment
- Step-by-step preparation methods
- Application techniques and benefits in TRV cultivation

Following the session, 5 kg of biochar and 100 litres of humic acid were successfully prepared. These inputs will be used in TRV cultivation fields to improve soil health and crop productivity.

6.3.2 Induction Training for New Staff

To ensure smooth integration and skill development of new team members, 15 training sessions were held.

Topics included:

- TRV documentation and characterization
- Rouging techniques
- Harvesting methods
- Post harvest processes such as cleaning, drying, and packaging

6.3.3 Training on TRV Rice Packaging

A training session was conducted for selected team members on the vacuum packaging of TRV rice. The session focused on the use of the vacuum packaging unit, covering operational procedures, best practices for maintaining rice quality, and packaging standards for retail and bulk sales.

6.4 Training on Sustainable TRV Cultivation: Empowering Farmers

CIKS is committed to empowering farmers with the knowledge and skills for sustainable agriculture, particularly focusing on Traditional Rice Varieties (TRV). We recently conducted a series of comprehensive training programs and interactive sessions, reaching a wide network of farmers across different districts.

6.4.1 Farmer Training on TRV Cultivation and Sustainable Practices

A total of 18 training sessions were organized, benefiting 465 farmers. These sessions provided comprehensive instruction on:

- TRV specific cultivation practices.
- Seed selection and preservation techniques.
- Application of organic manures and bio-inputs.
- Nonchemical pest and disease management.
- Preparation of biopesticides and other organic inputs.

The training methodology incorporated hands-on demonstrations, field visits, and practical exercises, enabling farmers to effectively adopt these practices in their own fields.

6.4.2 Farmers Training on TRV Seed Production and Experience Sharing

A training-cum-interaction program was conducted for 11 farmers from the Kurinjipadi and Viruthachalam blocks of Cuddalore District on January 8th, 2025. The session specifically focused on:

- Key practices in TRV seed production.
- Removal of off-types and rouging for varietal purity.
- Integrated Pest Management (IPM) and Integrated Disease Management (IDM).

Participants engaged in practical discussions, facilitating the sharing of their cultivation experiences with TRVs.

6.4.3 State-level Workshop on Traditional Rice Varieties Cultivation and Value-added Products Preparation

A state-level training program on Traditional Rice Varieties (TRV) Cultivation and Value-added Products Preparation was conducted in collaboration with Pasumai Vikatan on March 2nd, 2024, at CIKS – TRC. A total of 33 participants from 13 districts across Tamil Nadu and Puducherry attended the workshop.

The sessions covered diverse topics, including:

- The importance of TRV.
- CIKS' efforts in reviving TRV.
- Identification of TRV.
- TRV cultivation using the System of Rice Intensification (SRI) method.
- TRV processing.
- Preparation of value-added products such as Vadagam and Kanji flour.

As part of the training, participants also visited various enterprises located at CIKS – TRC.

6.4.4 Sustainable Agriculture Training in Collaboration with ATMA, Vellore District

A two-day training program was conducted at the CIKS–TRC on March 19th and 20th, 2025, for 35 farmers (including 6 women) from Katpadi Block, Vellore District. This program was organized under the ATMA (Agricultural Technology Management Agency) scheme of the Department of Agriculture. Key topics covered included:

- Differences between sustainable agriculture and chemical farming
- Soil fertility enhancement through organic inputs
- Non-chemical plant protection methods
- The System of Rice Intensification (SRI)
- Green manure seed production
- Preparation of bio-pesticides and vermicompost
- Seed processing and paddy milling.

6.5 Training on Preparation of Value-added Products from TRVs

CIKS conducted 25 training sessions for women Joint Liability Group (JLG) members and CIKS staff to build capacity in producing value-added products using TRV.

These hands-on sessions were led by Chef Ms. Nalina Kannan, and covered the preparation of:

- Various types of vadagam (sun-dried crisps ready to be fried)
- Bakery products made from TRV

Standardization was completed for two products:

- Ilai Vadagam
- Omapodi Vadagam

Standardization of bakery products is currently in progress. To support these efforts, various equipment for preparation and storage of value-added and bakery products was procured.

The value addition unit was renovated and formally inaugurated on 23rd January 2025 by Mr. Vijay Neehar, District Development Manager, NABARD, Chennai.

A specialized training on TRV based ready-mix powders was conducted on 26th March 2025, led by Mrs. Nalina Kannan from Thaligai Kitchen, Chennai.

A total of seven participants (3 women JLG members and 4 CIKS staff) received hands on training in preparing six types of ready mixes:

- TRV based Idly Mix
- Dosa Mix
- Idly Podi
- Rice Upma Mix
- Vellam Kozhukkattai Powder
- Uppu Kozhukkattai Powder

6.6 Training for Students

CIKS organized a series of awareness and training programmes to introduce school students to Traditional Rice Varieties (TRV), sustainable agriculture, and traditional healthcare practices.

22 one-day awareness programmes were conducted at the CIKS TRC for 150 students and 8 teachers from Sprouts Montessori House of Children. These sessions include interactive learning, demonstrations, and exposure to field level practices in TRV cultivation, ecofriendly farming technologies, indigenous health knowledge and sustainability.

6.7 Purchase of Equipment, Trial Runs, and Maintenance at CIKS TRC

To enhance post harvest operations and value addition at the CIKS Traditional Rice Centre (TRC)**,** several infrastructure and equipment upgrades were undertaken:

- Trial runs were conducted using various TRV varieties with the newly procured post harvest processing equipment to ensure smooth functioning and efficiency.
- A freezer was purchased for the storage of both wet and dry TRV flour, supporting shelf life extension and product quality.
- Infrastructure enhancements included the installation of dining tables and a CCTV camera at the TRC.
- As part of preparations for the Samba 2024 season, maintenance activities such as whitewashing, painting, and repairs to electrical and plumbing systems were carried out.
- Storage pest traps were procured and installed in TRV seed bank and godowns to protect stored seeds and grains from pest infestation.
- An oil extraction machine was purchased for experimental use in preparing plant-based pest control solutions.
- To support ongoing training sessions, new chairs were acquired to replace worn-out ones in the TRC training centre, benefiting both farmers and students.
- In the value addition unit, a bakery oven, grinding and mixing unit, and other essential accessories and equipment were installed to support the production of TRV based value-added products.
- Additionally, specialized equipment for the preparation of different types of vadagam from TRV was also purchased.

6.8 Knowledge Partners in Training Initiatives

6.8.1 Improved rice production for SC farmers in Pondicherry in collaboration with PAJANCOA & RI

The Department of Agriculture, Pondicherry in collaboration with PAJANCOA&RI (Pandit Jawaharlal Nehru College of Agriculture and Research Institute), Karaikal conducted a one-day training programme on Improved Rice Production for SC farmers in Uruvaiyaru village on 22nd October 2024. CIKS was invited as a resource institution for this programme.

Mrs Subhashini Sridhar participated in the event and shared insights on the significance of traditional paddy varieties, cultivation techniques and seed production aspects. More than 50 farmers participated in the programme. As part of the training, CIKS provided its Tamil version of the publication, a source book on traditional paddy as resource material for training programme.

Insights on Traditional Paddy Varieties and Cultivation by Mrs Subhashini Sridhar

6.8.2 Two members of the CIKS team served as resource persons in a training programme organized by CREATE, Madurai, held at the Swami Dayananda Trust Farm in Manjakudi on 22 December 2024. They led sessions on the documentation and seed production of traditional paddy varieties, sharing field-level insights and methodologies.

6.9 Linkages with Akshayakalapa Organics

A collaboration has been initiated with Akshayakalapa Organics Pvt Ltd. to promote TRV among farmers and develop marketing linkages. A team led by Mr. Sashikumar from Akshayakalapa visited the CIKS TRC in Chengalpattu District on 14th March 2025 for discussions and field observations. It was agreed that further discussions would be held to explore opportunities for scaling TRV cultivation and marketing through this partnership.

Team from Akshayakalapa Organics visited CIKS–TRC for discussions on promoting and scaling Traditional Rice Varieties (TRVs) through farmer linkages and market collaboration

7. Research and Studies Based on Field Requirements

To strengthen traditional rice variety (TRV) conservation and cultivation, CIKS undertakes ongoing research and field studies in areas such as seed viability, storage, wildlife conflict management, and nutritional profiling.

7.1 Pilot survey on TRVs in Tamil Nadu

CIKS periodically conducts surveys across Tamil Nadu to assess the current status and distribution of Traditional Rice Varieties (TRV). These efforts gather insights from farmers, traders, and other stakeholders, while also documenting under represented regions and revisiting previously surveyed areas due to changing cultivation patterns. A key objective is to collect TRV seeds not yet conserved at the CIKS–TRC. To initiate a new survey, an orientation session for the survey team was held on **May 24th, 2024**, at the CIKS–TRC. Following this, a pilot survey was conducted in the districts of Nagapattinam, Pudukkottai, Cuddalore, Villupuram, Thanjavur, Thiruvarur, Madurai, and Trichy, as well as in Karaikal District of the Puducherry Union Territory.

7.2 Additional TRV Seeds Collection

By the end of 2023, CIKS had conserved 156 Traditional Rice Varieties. Between April and June 2024, an additional 15 TRVs were collected from different regions of Tamil Nadu, bringing the total number of TRVs conserved to 171.

7.3 Seed Germination Tests and Shelf-Life Studies

Given the need to scale up TRV cultivation and seed production, it is essential to store seeds long-term while retaining high germination capacity. However, there is limited literature on dormancy, peak germination periods, and optimal storage practices for TRV. To address this, CIKS has launched a series of experiments aimed at:

- Identifying seed dormancy and optimal germination windows for each variety
- Standardizing storage methods to prolong germination viability

These trials are being carried out:

- In-house at CIKS–TRC
- At the Tamil Nadu Seed Certification Department, Kancheepuram

Ten batches of germination tests have been completed so far, and additional work is ongoing.

Review and Experimental Strategy

A review meeting was held to assess initial germination results. It was resolved to continue experiments focused on:

- Prolonging germination capacity
- Inducing germination
- Determining germination potential using standard methods

The seed storage methods under experimentation include:

- Thaniyakuthir (traditional granaries)
- Kada cloth bags with ash
- Mud pots
- Refrigeration

In Phase I of this initiative, seeds harvested in January 2024 are being used to test longevity beyond 330 days after harvest.

TRVs under Experimentation

The following five TRVs were selected for the current experiment:

- Karuppu Kavuni
- Kattu Yanam
- Kitchili Samba
- Thooyamalli
- Mappillai Samba

Storage methods being tested include

- Storing seeds with ash
- Use of mud pots
- Vacuum packaging
- Refrigeration

To support the study, essential equipment such as a mini refrigerator, mud pots, and Thaniyakuthir units were procured. A new mini refrigerator was installed in the Seed Bank to facilitate these controlled germination studies.

7.4 Nutritional Analysis and Documentation of Rice Varieties

CIKS has undertaken comprehensive work in understanding the nutritional benefits of both Traditional Rice Varieties (TRV) and the genetic potential of wild rice.

7.4.1 Nutritional Analysis of Traditional Rice Varieties (TRV)

To thoroughly understand traditional rice varieties health and dietary benefits, a total of 60 TRV samples were prepared for nutritional analysis. Of these, 40 samples were submitted to the National Agro Foundation (NAF) Laboratory in Taramani, Chennai. We have successfully received the nutritional test results for all 40 TRV analysed.

7.4.2 Documentation and Nutritional Analysis of Wild Rice

Beyond conserving and cultivating a wide range of TRV, CIKS has also initiated efforts to document and study wild rice. This work recognizes wild rice's significance as a potential genetic resource, as these species often possess valuable traits like resistance to pests, diseases, and flooding, which are crucial for future breeding and conservation.

During this reporting period, wild rice populations were identified in two locations in Chengalpattu District. Samples from these populations were collected for further study, and preliminary nutritional analysis has been conducted to assess their potential utility.

7.5 Measures for Managing Wild Pid Attacks at CIKS TRC

During the Samba 2024 season, fields at the CIKS TRC faced significant damage due to attacks by wild pigs, particularly affecting TRV conservation plots and boutique variety fields. These animals, which are primarily nocturnal, targeted fields during the night, especially as the crops neared harvest.

To address this challenge, CIKS implemented a range of preventive and deterrent measures, including:

- Installation of sound systems to create disturbances
- Strategic lighting to deter nocturnal activity
- Bursting crackers at intervals of 1 to 2 hours during the night
- Placing human hair along field bunds to create discomfort and deter pigs through smell
- Spraying Herboliv+, a herbal wildlife repellent, using drone technology
- Installing barbed wire fencing around vulnerable areas
- Night-time field monitoring by staff

Among these, night time monitoring and periodic bursting of crackers were found to be particularly effective in reducing crop damage. While these interventions provided short-term relief, CIKS is actively exploring long-term and sustainable solutions for managing wildlife conflict in agricultural settings.

LED lights to protect the field from wild pigs

7.6 TRV yield estimation experiment

In January 2025, yield estimation experiments were conducted for the Karuppu Kavuni and Vellai Kuruvikar Traditional Rice Varieties (TRV). The purpose was to compare the calculated (formula-based) yield with the actual harvested yield.

Upon completion of the trials, the results showed that the formula-based estimates closely matched the actual yields, confirming the accuracy and reliability of the yield estimation method used.

TRV yield estimation

7.7 Vrkshayurveda-Based Experiments on TRVs

Experiments were carried out on selected Traditional Rice Varieties to explore ways of enhancing yield, and improving pest and disease resistance by applying the principles of Vrkshayurveda—the ancient Indian science of plant life and health. The summary of results from these trials is presented in the following table.

S. No	Name of the Crop	Name of the pest / Disease	Name of the Experiment tried	Location	Results
1	Kitchili Samba	Leaf Thrips	Adathoda Ksharam	CIKS – TRC, Sukkankollai	100% control
2	Thooyamalli	Leaf Thrips	Erukku Ksharam	CIKS – TRC, Sukkankollai	100% control
3	Sivappu Seeraga Samba	Leaf Thrips	Banana Ksharam	CIKS – TRC, Sukkankollai	100% control
4	TRVs	Black Beetle	Neem seed powder extract and chilli powder extract	CIKS – TRC, Sukkankollai	100% control (after two sprays in two days intervals)

5	Mappillai Samba	Stem Borer	Garlic, ginger, green chili solution with chilli powder. Tobacco extract with garlic, ginger and green chilli solution	Sreyes farm, Poorivakkam	100% control
6	Karuppu Kavuni	Growth Promotion	Tender coconut with butter milk	Sreyes farm, Poorivakkam	Rapid panicle initiation and flowering.
7	Chengalpattu Sirumani	Stem Borer	Tobacco extract with ginger, garlic & chili powder	Sreyes farm, Poorivakkam	100% control

7.8 Biochar Experiments in Traditional Paddy Cultivation

An experimental trial was initiated using Biochar in the cultivation of the Poongkar variety. The experiment involved five treatments combining biochar with:

- Vermicompost
- Farmyard manure (FYM)
- Goat manure
- Neem seed powder
- Asafoetida

Agronomic characteristics were documented, and biochar was applied in two top dressings along with standard organic inputs. Weeding, manuring, and plant protection practices followed standard protocols.

8. Education Efforts, Networking, and Raising Awareness through Participation in Expos and Exhibitions, and Hosting Visitors

8.1 TRV Seeds Supplied to the State Seed Farm in Kanchipuram and Organic Farming Certification

CIKS supplied 150 kg of *Karuppu Kavuni* seeds to the State Seed Farm in Kanchipuram, where seed production for *Karuppu Kavuni* has commenced. Mrs. Sathiyalakshmi, Additional Director of Agriculture (Seed Certification), and other officials visited CIKS–TRC and provided guidance on statutory compliance.

8.2 Traditional Rice Varieties Take Spotlight at Book Fair

Various departments participated in the Chengalpattu District-level Book Fair, organized by the Government of Tamil Nadu from February 20 to February 28, 2025, including the Departments of Agriculture and Horticulture. During the event, the Agriculture Departments of Chengalpattu and Vellore procured TRV seeds from TRC. The exhibition served as a valuable platform to promote awareness of TRV among attendees from diverse sectors, fostering increased interest in traditional agricultural practices.

8.3 Organic Certification Inspection

On 4th September 2024, Mr Balamurugan from IMO IN (IMO Control Private Limited) conducted an inspection for the renewal of the organic certification.

8.4 Advancing TRV Cultivation: Exploring AI-Based Farm Equipment

Visitors to the TRC included a team from the Fractal Foundation and Kubota Agri Machinery Industry (Mr. Kannan Lakshminarayan, Mrs. Hemamalini Jagannathan, and Mr. Kosuke Ikeda from Japan). Discussions focused on reducing labour costs in agriculture through the use of AI-based machinery, such as automated weeders.

8.5 Press meet Programme

Organized two press meets in November 2024. Twenty five reporters from TV channels, newspapers, and magazines participated. Following a presentation on CIKS' 30 years of efforts to revive traditional varieties, reporters conducted personal interviews with the Director, Research Director, and Programme Director. Following the event, news about CIKS' efforts in TRV conservation and boutique variety cultivation was telecasted on TV channels and featured in newspapers. This event received widespread coverage in the press.

Media Spotlight: Coverage Highlights Following the Press Meet

8.6 Task force on – "Digitization of Traditional Agricultural Practices of India"

The Government of India has constituted a task force on – "Digitization of Traditional Agricultural Practices of India". The effort has been taken up by the CSIR (Council for Scientific and Industrial Research) as part of their TKDL (Traditional Knowledge Digital Library) project. Mr. A.V. Balasubramanian has been invited to be a member of this committee which has been formed in August 2024 with a three-year term between 2024 and 2026. As part of this project information is also being collected about biodiversity of various crops including rice varieties.

8.7 Collaboration between CIKS and MOP Vaishnav College for Work on TRV (as on 18th December 2024)

On Wednesday 18th December 2024, Mr. AV Balasubramanian, Dr K. Vijayalakshmi from Centre for Indian Knowledge Systems were invited by the Food Science Department of MOP Vaishnav College to deliver a guest lecture, on the nutritional and therapeutic properties of traditional rice varieties. The talk was attended by about 40 persons including post graduate students of the department and member of the faculty. It has been decided that some of the students will take up research studies on the properties of TRV starting from January 2025 and the details have been worked out.

Guest lecture to Food Science Department

A group of 53 students from B.Sc. Food Science Department has visited CIKS farm as an exposure visit on 7 January, 2025. During the visit students were introduced to various farm activities, including milling, vermicomposting and innovative mechanisms like bird perching and sticky pads for insect control. They also had hands on experience with paddy harvesting and post harvesting techniques.

Two students of the department of food and nutrition have taken up detailed nutritional analysis of the traditional rice variety- *Soorankuruvai.* They are studying the proximate principles, mineral content and the profile of phytochemicals of both the raw and parboiled rice of this variety supplied by CIKS. CIKS has also discussed with them traditional knowledge about this variety available from field studies.

8.8 Building on local resources knowledge and wisdom for strengthening farmers livelihoods and income: sharing experiences from Tamil Nadu

A three-day national convention on "Knowledge in development discourse and people's movements" was held in Shivamogga University in Karnataka between 20th and 22nd February 2025. Mr. A.V. Balasubramanian participated in the convention and made a presentation on "Building on local resources knowledge and wisdom for strengthening farmer's livelihoods and income: sharing experiences from Tamil Nadu**".** He shared experience about the CIKS work with special focus on activities relating to Traditional Rice Varieties.

8.9 Visit to Avinashilingam Institute for Home Science and Higher Education for Women, and discussions on 28th February 2025

At the invitation of the university Mr. A.V. Balasubramanian delivered a talk as the chief guest during the National Science Day celebration at the University at Coimbatore on 28th February 2025 in the forenoon. During the afternoon, he had meeting and discussions with various faculty members who were interested in taking up research efforts in the area of Traditional knowledge. He also shared the publication and work of CIKS relating to Nutritional and Therapeutic properties of TRV with members of the faculty of Nutrition and Food Science. Possibilities for taking up collaborative research are being explored.

Talk delivered to students at the National Science Day Celebration

8.10 Consolidation and Strengthening of TRV Cultivation in Select CIKS Field Areas

CIKS has been actively involved in work related to TRV for over 20 years in the Nagapattinam District, focusing on the Sirkazhi, Kollidam, and Vedaranyam areas, along with some surrounding regions. With the recent reorganization of districts, these areas now fall under three new districts—Nagapattinam, Thiruvarur, and Mayiladuthurai.

On the 28th and 29th of May, 2024, the CIKS Director, Research Director, Programme Director, and Programme Coordinator visited farmers' fields in the Mayiladuthurai and Nagapattinam Districts to assess the current status of TRV cultivation and plan future activities. During the visit, they held various discussions with farmer groups and also visited

sustainable microenterprise units operating in these regions, such as the neem oil soap-making unit, value addition unit, vermicompost unit, eco-friendly product preparation unit, and milk collection and marketing centers. The purpose of this visit was to strengthen the ongoing activities in the area and to build upon previous initiatives for future expansion.

8.11 State-level Workshop on Traditional Rice Varieties Cultivation and Value-added Products Preparation in Collaboration with Pasumai Vikatan

A state-level training program on Traditional Rice Varieties (TRV) Cultivation and Value-added Products Preparation was conducted in collaboration with *Pasumai Vikatan* on 2nd March 2024 at CIKS – TRC. A total of 33 participants from 13 districts of Tamil Nadu and Puducherry attended the workshop. The sessions covered topics such as the importance of TRVs, CIKS' efforts in reviving TRV, identification of TRV, TRV cultivation using the System of Rice Intensification (SRI) method, TRV processing, and the preparation of Value-added products such as *Vadagam* and *Kanji flour*. Participants also visited various enterprises at CIKS – TRC as part of the training.

Participants across many districts of the state attending the session

8.12 Participation in Exhibitions and Hosting Visitors

8.12.1 Participated in the National Paddy Festival and Organic Farming Seminar held at Thiruthuraipoondi in June 2024. Visitors from the Equitas Bank CSR division also visited our facilities during this period.

8.12.2 Hosted a delegation from the M. S. Swaminathan Research Foundation (MSSRF) along with scientists from the Fridtjof Nansen Institute (FNI), Norway. The team is collaborating with MSSRF and Indian agencies to establish a network of community-based and community-managed seed conservation initiatives.

8.12.3 Following the release of the publication *"Tamilnattin Parampariya Nel Rakangkal – Oru Thakaval Kalanjiyam"*, there has been renewed interest in TRVs. Copies have been distributed to farmers, NGOs, and scientists. The publication is also available for download on the Namma Nellu website, with 416 downloads recorded so far.

8.12.4 Participated in the Traditional Paddy Seed Festival at Vandavasi on 7th July 2024, displaying traditional paddy seeds, rice varieties, TRV publications, organic inputs, and traditional vegetable seeds.

8.12.5 Participated in a seminar on organic farming and farm layout organized by Mr. Alladi Mahadev in Malarajakuppam Village on 13th July 2024.

8.12.6 Represented CIKS at the Agri Exhibition in CODISSIA, Coimbatore on 14th July 2024.

8.12.7 Showcased TRV and other agricultural products at the Giramiya Thiruvizha held in Chennai on 28th July 2024.

8.12.8 Displayed traditional paddy seeds, rice varieties, TRV publications, and organic inputs at the Agri Expo in Madurai from 16th to 18th August 2024.

8.12.9 Participated in the Rice and Pulses Hi-Tech Expo held in Kancheepuram on 26th August 2024, exhibiting a range of agricultural products.

8.12.10 Representatives from CIKS, Sempulam, and Cheyyar Farmer Producer Company Limited attended the Agri Expo in Coimbatore from 26th to 29th September 2024, showcasing TRVs and allied products.

8.12.11 Three CIKS representatives participated in the Sustainable Agriculture Conference held at Rayakkottai, Krishnagiri District on 5th March 2025, where TRV seed samples, publications, TRV rice, and Value-added products were displayed.

8.13 Books on public access to work on Traditional Rice Varieties

As part of our commitment to promoting sustainable agriculture, we have made numerous publications on sustainable farming techniques and traditional seeds accessible to the public through our website. These resources provide valuable insights into sustainable farming practices, helping farmers, researchers, and enthusiasts deepen their understanding of sustainable agriculture.

One of our highlighted publications, **Traditional Rice Varieties of Tamil Nadu- A Source Book**, has garnered significant interest from knowledge seekers across various regions. This book has been downloaded **664 times** between the period April 2024- March 2025 by individuals eager to explore the richness and benefits of traditional rice cultivation.

The strong engagement with our open-access materials reflects a growing awareness and enthusiasm for traditional rice varieties. We will continue to expand our knowledge-sharing efforts, ensuring that essential agricultural information reaches those who can benefit the most.

9. Partners and Supporters

We have received enthusiastic and generous support for the Namma Nellu program from a large number of sources both institutional and individuals including the following

9.1 Current partners and collaborators

TEL TURBO ENERGY

Shri AMM Murugappa Chettiar Research Centre

WOKA foundation

Supraja Foundation

9.2 Individual donors

Individual supporters have come from a wide range of backgrounds, including historians, lawyers, accountants, school teachers, Sanskrit scholars, sailors, homemakers, sociologists, ecologists, molecular biologists, textile technologists, theoretical physicists, and even an aerospace scientist, to name just a few.

9.3 Farmer partners

Farmers groups have been partners in various activities such as - Seed production, production of inputs and maintenance of units for processing and value addition. These have included

farmers clubs, SHGs (Self Help Groups), JLGs (Joint Liability Groups) as well as FPCs (Farmer Producer Companies). They are located in the districts of Kancheepuram, Chengalpattu, Tiruvannamalai and Dindigul.

9.4 Partners for Marketing and Promotion

Marketing has been done both at the wholesale and retail levels and involved farmers groups, producer companies as well as private companies. Sempulam Sustainable Solutions Private Limited Company (www.sempulam.com), a social enterprise is our marketing partner.

Sempulam procures products directly from the farmers with whom we are working. Branding and retailing is done by Sempulam. Promotional efforts have involved partnership with well-known chefs and hotels and restaurants.