

Scheduled Caste Sub Plan Programme of ICAR-CTCRI (2020-2022)

# REACHING THE UNREACHED FOR INCLUSIVE GROWTH AND SUSTAINABLE DEVELOPMENT



**भाकृअनुप- केंद्रीय कंद फसल अनुसंधान संस्थान**

श्रीकार्यम, तिरुवनंतपुरम 695017, केरल, भारत

(भारतीय कृषि अनुसंधान परिषद)

**ICAR-CENTRAL TUBER CROPS RESEARCH INSTITUTE**

Sreekariyam, Thiruvananthapuram - 695 017, Kerala, India

(Indian Council of Agricultural Research)



Scheduled Caste Sub Plan Programme of ICAR-CTCRI (2020-2022)

# REACHING THE UNREACHED FOR INCLUSIVE GROWTH AND SUSTAINABLE DEVELOPMENT



**भाकृअनुप- केंद्रीय कंद फसल अनुसंधान संस्थान**

श्रीकार्यम, तिरुवनंतपुरम 695017, केरल, भारत

(भारतीय कृषि अनुसंधान परिषद)

**ICAR-CENTRAL TUBER CROPS RESEARCH INSTITUTE**

Sreekariyam, Thiruvananthapuram - 695 017, Kerala, India

(Indian Council of Agricultural Research)





## **ICAR-Central Tuber Crops Research Institute**

(Indian Council of Agricultural Research)

Sreekariyam, Thiruvananthapuram 695 017, Kerala, India

Tel: (91) (471) 2598551 to 2598554

E-mail: [director.ctcri@icar.org.in](mailto:director.ctcri@icar.org.in)

Website: <https://www.ctcri.org>

### **Published by**

Dr. G. Byju

Director

### **Editors**

D. Jaganathan

R. Muthuraj

Sheela Immanuel

M.S. Sajeew

K. Susan John

S. Sunitha

A.V.V. Koundinya

V. Ramesh

P. Prakash

T. Krishnakumar

K. Sunilkumar

E.R. Harish

K.M. Senthilkumar

B.G. Sangeetha

C. Pradeepika

### **July 2025**

### **Correct citation**

Jaganathan, D., Muthuraj, R., Sheela Immanuel, Sajeew, M.S., Susan John, K., Sunitha, S., Koundinya, A.V.V., Ramesh, V., Prakash, P., Krishnakumar, T., Sunilkumar, K., Harish, E.R., Senthilkumar, K.M., Sangeetha, B.G. and Pradeepika, C. 2025. Reaching the Unreached for Inclusive Growth and Sustainable Development: SCSP Programme of ICAR-CTCRI (2020-2022), Technical bulletin No.TB-113/2025, ICAR-Central Tuber Crops Research Institute, Sreekariyam, Thiruvananthapuram, Kerala, India, 45 p.

© **Copyright:** No part of this publication may be reproduced without prior permission of the Director, ICAR-CTCRI, Sreekariyam, Thiruvananthapuram, Kerala, India.

### **Design, Layout & Printing**

Aden Digital Signage, Thiruvananthapuram

Mob: +91 9605206323, Email: [adentvm2018@gmail.com](mailto:adentvm2018@gmail.com)

## Contents

| Sl. No. | Topic                                                                      | Page No. |
|---------|----------------------------------------------------------------------------|----------|
|         | From the Director .....                                                    | 1        |
| 1.      | Introduction .....                                                         | 3        |
| 2.      | Approach and Implementation Strategy.....                                  | 5        |
| 3.      | Quality Inputs for Enhancing Farm Productivity.....                        | 12       |
| 4.      | Technological Interventions for Inclusive and Sustainable Development..... | 16       |
| 5.      | Capacity Building of Farmers and Stakeholders.....                         | 25       |
| 6.      | Budget Utilization .....                                                   | 31       |
| 7.      | Output of the Programme .....                                              | 31       |
| 8.      | Annexures .....                                                            |          |
| I.      | List of Beneficiaries.....                                                 | 32       |
| II.     | Media Coverage.....                                                        | 40       |
| III.    | Quarterly Progress Report Format.....                                      | 43       |
| IV.     | Project Team.....                                                          | 45       |



## ICAR-Central Tuber Crops Research Institute

Sreekariyam 695 017, Thiruvananthapuram, Kerala, India

**Dr. G. Byju**  
Director

Phone: 0471- 2598431  
Email: director.ctcri@icar.org.in

### From the Director



Tropical tuber crops such as cassava, sweet potato, yams, aroids and minor tuber crops hold immense potential for ensuring food, nutritional, and livelihood security in India, particularly among resource-poor and marginalized communities. These crops are climate-resilient, nutritionally rich, and capable of thriving in marginal soils, making them ideal for sustainable agricultural systems in diverse agro-ecological zones. Tropical tuber crops are cultivated in an area of about 0.391 million ha with a total production and productivity of about 9.82 million tons and 21.36 t/ha respectively. The most significant tropical tuber crops in India are cassava, sweet potato and elephant foot yam due to their extensive commercial cultivation, market demand and other diversified uses which contribute to 5.1% of total vegetable production with a present market value of ₹196 billion.

The Scheduled Caste Sub Plan (SCSP) programme, being implemented by ICAR-CTCRI, Thiruvananthapuram aims to bridge the development gap by empowering Scheduled Caste (SC) communities through inclusive agricultural interventions. In this context, tropical tuber crops offer unique opportunities to transform the socio-economic landscape of SC households by enhancing productivity, income, and nutritional well-being.

This technical bulletin, titled '*Reaching the Unreached for Inclusive Growth and Sustainable Development*' is a step towards documenting the concerted efforts undertaken under the SCSP programme conducted during 2020-2021 to 2021-2022. It highlights the technologies introduced, capacity-building initiatives and the tangible impact created at the grassroots level in Kerala, Tamil Nadu and Andhra Pradesh. The bulletin serves as a knowledge repository and a practical guide for extension professionals, policy makers, and development practitioners working towards inclusive growth and sustainable development.

I appreciate the authors and the entire team for their commitment in compiling this timely and relevant publication. I am confident that this bulletin will not only serve as a reference for future interventions but also inspire broader adoption of tropical tuber crop technologies among under represented communities.

Let us continue to work collectively to ensure that the benefits of agricultural research and innovation truly reach the unreached.

July 2025



**G. Byju**  
Director



## 1. Introduction

### **Scheduled Caste Sub Plan (SCSP): A Strategic Inclusion Initiative**

The Scheduled Caste Sub Plan (SCSP) is a flagship initiative of the Government of India aimed at the socio-economic development of scheduled castes (SCs) through targeted investments and support in various sectors, including agriculture and allied activities. Recognizing that scheduled caste communities often face historical disadvantages, limited access to resources, and marginalization, the SCSP programme was designed in such a way to ensure inclusive growth and equitable development.

The scheme was introduced in 1979, based on the recommendations of a Task Force by the Planning Commission. The plan mandates that Central Ministries/Departments earmark a proportion of their plan outlay (in line with the SC population percentage) specifically for the benefit of SCs. It aims to bridge socio-economic disparities by ensuring focused development programmes for SC communities. According to the Socio-Economic and Caste Census 2011, nearly 79% of adivasi households and 73% of dalit households were the most deprived among rural households in India. While 45% of SC households are landless and earn a living by manual casual labour, the figure is 30% for adivasis. This programme is to promote the economic development of SC families living below the poverty line by providing various resources. The primary goal is to channelize the flow of outlays and the benefits from the general sectors in the plan for the development of SC atleast in proportion to their population.

The SCSP programme implemented by ICAR Institutes represents a transformative approach to inclusive agricultural development. By integrating research, extension, and empowerment, the programme enhances the resilience and livelihoods of SC communities while promoting social justice and equity in India's agricultural landscape.

### **Tropical Tuber Crops in India**

Tropical tuber crops like cassava, sweet potato, yams, elephant foot yam and taro play a crucial role in the food and nutritional security of the people living in the southern states viz., Kerala, Tamil Nadu and Andhra Pradesh. The southern states of the country is bestowed with a variety of tuber crops and also considered as important states for tuber crops production and consumption. Tuber crops are indispensable ingredients in the cuisine of people and support the livelihoods of poor people and provide life support food during off-season. Tubers are abundant in their diet in a variety of forms as secondary staples, nutritional adjuncts (boiled/fried/dried) and curative medicines.

The ICAR-CTCRI has implemented several programmes during 2020-2022 in three southern states of the country. These efforts were focused on capacity building, supply of quality planting materials and critical inputs, and establishment of demonstrations on

improved varieties and technologies of tropical tuber crops. The area and production of major tuber crops grown in Andhra Pradesh, Kerala and Tamil Nadu are given in Table 1. The SC communities in these states are mainly dependent on these crops for their livelihood and income security.

Table 1. Area and production of major tropical tuber crops (2023-2024)

| States/Country | Cassava       |                 | Sweet potato |                | Elephant foot yam |                |
|----------------|---------------|-----------------|--------------|----------------|-------------------|----------------|
|                | Area (ha)     | Production (t)  | Area (ha)    | Production (t) | Area (ha)         | Production (t) |
| Andhra Pradesh | 5200 (2.92)   | 129880 (2.07)   | 460 (0.42)   | 13800 (1.06)   | 3010 (7.60)       | 112070 (11.44) |
| Kerala         | 56550 (31.77) | 2329850 (37.14) | 180 (0.16)   | 1790 (0.14)    | 4330 (10.94)      | 180040 (18.38) |
| Tamil Nadu     | 98430 (55.30) | 3592730 (57.27) | 590 (0.53)   | 10590 (0.81)   | 4520 (11.42)      | 143210 (14.62) |
| India          | 177980 (100)  | 6272920 (100)   | 110660 (100) | 1306140 (100)  | 39580 (100)       | 979390 (100)   |

Figures in parenthesis are given in percentage to the total; Source: Indiastatagri (2024)

## Objectives

The major objective of the programme is to enhance the food, nutritional security and income of farmers by adoption of improved tuber crop varieties, production and processing technologies. The specific objectives are

- To organize capacity building programmes and participatory demonstrations on improved varieties and technologies of tropical tuber crops
- To establish decentralized production and processing facilities for tuber crops technologies for enhancing the technology utilization
- To evolve appropriate upscalable participatory technology transfer approaches for sustainable development of tropical tuber crops

## 2. Approach and Implementation Strategy

The Scheduled Caste Sub-Plan (SCSP) is a government initiative designed to ensure targeted benefits of Scheduled Castes (SCs), particularly in areas like agriculture, skill development, and livelihood improvement. The Institute implements SCSP in line with this mandate to promote inclusive growth. Participatory Need Assessment was done by conducting baseline surveys and Participatory Rural Appraisals (PRA) in SC dominated villages in Kerala, Tamil Nadu and Andhra Pradesh and identified region-specific challenges, gaps, and opportunities in tropical tuber crops. A multidisciplinary team of scientists and technical staff implemented the SCSP programme in the study area.

### Technical Programme

- i. Conduct of PRA and livelihood survey
- ii. Selection of farmer beneficiaries
- iii. Distribution of quality planting materials and critical inputs
- iv. Frontline demonstrations of improved varieties and technologies of tropical tuber crops
- v. Capacity building programmes to facilitate adoption of improved varieties and technologies of tropical tuber crops
- vi. Popularizing tuber crops based products and tuber crops based enterprise development
- vii. Monitoring and impact assessment

### Project Locations

This programme was implemented through partnership mode along with KVKs, State Department of Agriculture/Horticulture and AICRP TC Centres in Kerala, Tamil Nadu and Andhra Pradesh (Fig. 1 & Table 2).



Fig. 1. Project locations of SCSP programme in India

Table 2. Project locations and partners of SCSP programme

| Year      | Districts                                                                    | State          | Partners                                                                      |
|-----------|------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------|
| 2020-2021 | Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Ernakulam, Malappuram | Kerala         | Krishi Vigyan Kendras<br>State Department of Agriculture                      |
|           | Tenkasi, Tirunelveli, Salem, Namakkal, Pudukottai                            | Tamil Nadu     | Krishi Vigyan Kendras<br>State Department of Horticulture                     |
|           | East Godavari, West Godavari                                                 | Andhra Pradesh | AICRP TC Centres<br>Krishi Vigyan Kendras<br>State Department of Horticulture |
| 2021-2022 | Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha                        | Kerala         | Krishi Vigyan Kendras<br>State Department of Agriculture                      |
|           | Tenkasi, Tirunelveli, Salem, Namakkal, Pudukottai, Karur                     | Tamil Nadu     | Krishi Vigyan Kendras<br>State Department of Horticulture                     |
|           | East Godavari, West Godavari                                                 | Andhra Pradesh | AICRP TC Centres<br>Krishi Vigyan Kendras<br>State Department of Horticulture |

## Profile of Project Locations

### Kerala

The major tuber crops growing districts in Kerala viz., Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Ernakulam and Malappuram were selected for implementing technological interventions and capacity building programmes on tropical tuber crops for the benefit of farmers and other stakeholders. The brief profile of the project areas (Table 3 & 4, Fig.2) are given below.

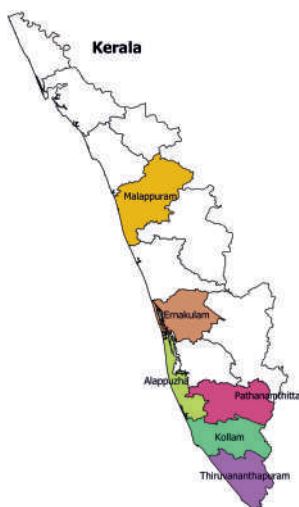


Fig. 2. Project locations of SCSP programme in Kerala

Table 3. District profile of project locations in Kerala

| Particulars                  | Thiruvananthapuram                                                                                     | Kollam                                                                                                | Pathanamthitta                                                                             |
|------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Latitude & Longitude         | 8°17' to 8°54' N and 76° 41' to 77° 17' E                                                              | 8°53'01.3"N and 76°36'02.2"E                                                                          | 9° 15' 53.1288" N and 76° 47' 13.3476" E                                                   |
| Area (Sq.km)                 | 2192                                                                                                   | 2483                                                                                                  | 2637                                                                                       |
| Population (Lakhs)           | 33.01                                                                                                  | 26.35                                                                                                 | 11.97                                                                                      |
| Taluks (Nos.)                | 6                                                                                                      | 6                                                                                                     | 6                                                                                          |
| Villages (Nos.)              | 124                                                                                                    | 105                                                                                                   | 70                                                                                         |
| Net sown area ('000 ha)      | 135                                                                                                    | 128                                                                                                   | 83.33                                                                                      |
| Gross cropped area ('000 ha) | 163                                                                                                    | 140                                                                                                   | 104                                                                                        |
| Cropping intensity (%)       | 120.7                                                                                                  | 114                                                                                                   | 130                                                                                        |
| Net irrigated area ('000 ha) | 8.2                                                                                                    | 6.05                                                                                                  | 8.2                                                                                        |
| Rainfall (mm)                | 1827                                                                                                   | 2428                                                                                                  | 3134                                                                                       |
| Temperature (°C)             | 33 (Summer)<br>25 (Winter)                                                                             | 34 (Summer)<br>21 (Winter)                                                                            | 36 (Summer)<br>30 (Winter)                                                                 |
| Soil types                   | Red loam, coastal alluvium, riverine alluvium, lateritic soil, brown hydromorphic soil and forest loam | Lateritic soils, Brown Hydromorphic soils, Greyish Onattukara soils, Coastal Alluvium and Forest Loam | Forest Loam, Lateritic, Brown hydromorphic, Riverine alluvium and Greyish Onattukara soils |
| Major crops                  | Coconut, Mango, Banana, Tapioca, Black Pepper, Drumstick, Papaya                                       | Paddy, Coconut, Rubber, Tapioca, Black Pepper, Banana, Cashew                                         | Paddy, Tapioca, Coconut, Banana, Black Pepper                                              |
| Literacy (%)                 | 95.10                                                                                                  | 93.77                                                                                                 | 96.55                                                                                      |

Table 4. District profile of project locations in Kerala

| Particulars                  | Alappuzha                    | Ernakulam                      | Malappuram                 |
|------------------------------|------------------------------|--------------------------------|----------------------------|
| Latitude & Longitude         | 9°29'24.1"N and 76°19'35.0"E | 9°58'53.8" N and 76°17'59.6" E | 11.0510° N and 76.0711° E  |
| Area (Sq.km)                 | 1414                         | 3068                           | 3550                       |
| Population (Lakhs)           | 21.28                        | 32.82                          | 41.13                      |
| Taluks (Nos.)                | 6                            | 7                              | 7                          |
| Villages (Nos.)              | 93                           | 61                             | 138                        |
| Net sown area ('000 ha)      | 86.4                         | 146                            | 178.341                    |
| Gross cropped area ('000 ha) | 105                          | 164                            | 241.585                    |
| Cropping intensity (%)       | 134                          | 109                            | 135.46                     |
| Net irrigated area ('000 ha) | 36.8                         | 24.75                          | 23.700                     |
| Rainfall (mm)                | 2763                         | 3099                           | 2952                       |
| Temperature (°C)             | 28 (Summer)<br>25 (Winter)   | 33 (Summer)<br>22 (Winter)     | 32 (Summer)<br>24 (Winter) |

|              |                                                                                                                              |                                                                                            |                                                                      |
|--------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Soil types   | Coastal alluvium (Entisols), Riverine Alluvium (Inceptisols) Brown hydromorphic soil (Alfisols) and Lateritic soil (Oxisols) | Lateritic, Hydromorphic saline, Brown hydromorphic, Riverine alluvium and Coastal alluvium | Laterite, Alluvium, Red soil, Sandy soil                             |
| Major crops  | Paddy, Coconut, Tapioca, Rubber                                                                                              | Rubber, Coconut, Banana, Pineapple, Black Pepper                                           | Coconut, Arecanut, Paddy, Rubber, Banana, Tuber crops and Vegetables |
| Literacy (%) | 96.26                                                                                                                        | 95.68                                                                                      | 93.57                                                                |

### Tamil Nadu

The major tuber crops growing districts in Tamil Nadu viz., Salem, Namakkal, Pudukottai, Karur, Tenkasi and Tirunelveli were selected for implementing technological interventions and capacity building programmes on tropical tuber crops for the benefit of farmers and other stakeholders. The brief profile of the project areas (Table 5 & 6, Fig. 3) are given below.

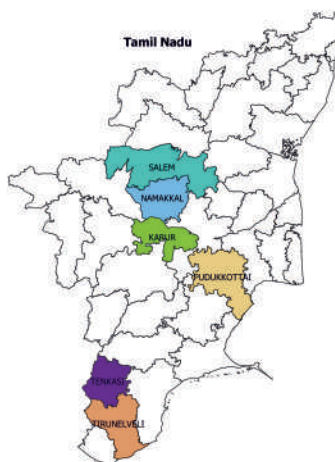


Fig. 3. Project locations of SCSP programme in Tamil Nadu

Table 5. District profile of project locations in Tamil Nadu

| Particulars             | Salem                                    | Namakkal                                  | Pudukkottai                               |
|-------------------------|------------------------------------------|-------------------------------------------|-------------------------------------------|
| Latitude & Longitude    | 11° 39' 51.5700" N and 78° 8' 45.6396" E | 11° 13' 46.5312" N and 78° 10' 16.1688" E | 10° 22' 46.7868" N and 78° 49' 15.0492" E |
| Area (Sq.km)            | 5245                                     | 3368                                      | 4663                                      |
| Population (Lakhs)      | 34.82                                    | 17.26                                     | 16.18                                     |
| Taluks (Nos.)           | 14                                       | 8                                         | 12                                        |
| Villages (Nos.)         | 655                                      | 391                                       | 763                                       |
| Net sown area ('000 ha) | 191                                      | 141                                       | 158                                       |

|                              |                                                                                             |                                                                                                       |                                                                                  |
|------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Gross cropped area ('000 ha) | 231                                                                                         | 336                                                                                                   | 148                                                                              |
| Cropping intensity (%)       | 128                                                                                         | 143                                                                                                   | 113                                                                              |
| Net irrigated area ('000 ha) | 124                                                                                         | 60                                                                                                    | 92.96                                                                            |
| Rainfall (mm)                | 979                                                                                         | 716                                                                                                   | 922                                                                              |
| Temperature (°C)             | 39 (Summer)<br>24 (Winter)                                                                  | 38 (Summer)<br>15 (Winter)                                                                            | 31 (Summer)<br>24 (Winter)                                                       |
| Soil types                   | Red calcareous, Red non calcareous, Brown calcareous, Black soil, Alluvial soil, Mixed soil | Red loam, Lateritic soil, Black soil, Sandy coastal alluvial, Red sandy soil and pockets of clay loam | Red loam, Black soil, Laterite soil, Red sandy, Calcareous, and Coastal alluvium |
| Major crops                  | Paddy, Tapioca, Groundnut, Sugarcane, Maize, Mango, Banana, Cotton, Coconut                 | Paddy, Tapioca, Sorghum, Groundnut, Greengram, Blackgram, Maize, Cotton and Sugarcane                 | Paddy, Maize, Ragi, Sorghum, Blackgram, Redgram, Groundnut                       |
| Literacy (%)                 | 72.86                                                                                       | 74.63                                                                                                 | 77.19                                                                            |

Table 6. District profile of project locations in Tamil Nadu

| Particulars                  | Karur                                                  | Tenkasi                                                                                      | Tirunelveli                                                          |
|------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Latitude & Longitude         | 10°57'27.8"N and 78°04'51.4"E                          | 8° 57' 32.4756" N and 77° 18' 46.5660" E                                                     | 8° 44' 28.3992" N and 77° 41' 40.6536" E                             |
| Area (Sq.km)                 | 2904                                                   | 2916                                                                                         | 3876                                                                 |
| Population (Lakhs)           | 10.64                                                  | 13                                                                                           | 36.77                                                                |
| Taluks (Nos.)                | 7                                                      | 8                                                                                            | 8                                                                    |
| Villages (Nos.)              | 203                                                    | 246                                                                                          | 370                                                                  |
| Net sown area ('000 ha)      | 78.34                                                  | 112                                                                                          | 66                                                                   |
| Gross cropped area ('000 ha) | 96.1                                                   | 124                                                                                          | 165                                                                  |
| Cropping intensity (%)       | 120-130                                                | 110                                                                                          | 107                                                                  |
| Net irrigated area ('000 ha) | 54.7                                                   | 40.34                                                                                        | 71                                                                   |
| Rainfall (mm)                | 724                                                    | 872                                                                                          | 998                                                                  |
| Temperature (°C)             | 31 (Summer)<br>24 (Winter)                             | 45 (Summer)<br>28 (Winter)                                                                   | 42 (Summer)<br>21 (Winter)                                           |
| Soil types                   | Red soil, Thin red soil, Red loam, River alluvium soil | Red loam, Black soil, Deep red soil, Red sandy soil, Saline coastal alluvium, River alluvium | Red soil, Black cotton soil, Red sandy soil, Saline coastal alluvium |
| Major crops                  | Paddy, Millets, Pulses, Sugarcane, Banana, Groundnut   | Paddy, Blackgram, Greengram, Cowpea                                                          | Paddy, Maize, Groundnut, Coconut, Bajra, Sorghum, Finger millet      |
| Literacy (%)                 | 75.60                                                  | 72.55                                                                                        | 82.50                                                                |

## Andhra Pradesh

The major tuber crops growing districts in Andhra Pradesh viz., East Godavari and West Godavari were selected for implementing capacity building programmes on tropical tuber crops for benefit of farmers and other stakeholders. The brief profile of the project areas (Table 7, Fig .4) are given below.

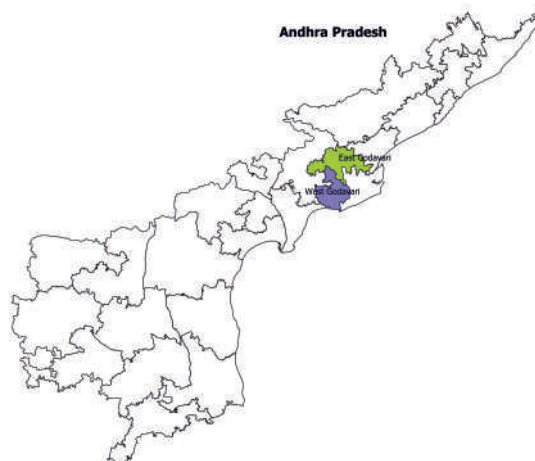


Fig. 4. Project locations of SCSP programme in Andhra Pradesh

Table 7. District profile of project locations in Andhra Pradesh

| Particulars                  | East Godavari                                      | West Godavari                                                                                                           |
|------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Latitude & Longitude         | 16° 59' 20.6340" N and 82° 14' 50.8812" E          | 16° 7' 0" N and 81° 1' 0" E                                                                                             |
| Area (Sq.km)                 | 12805                                              | 7742                                                                                                                    |
| Population(Lakhs)            | 52.86                                              | 39.37                                                                                                                   |
| Taluks (Nos.)                | 19                                                 | 20                                                                                                                      |
| Villages (Nos.)              | 303                                                | 409                                                                                                                     |
| Net sown area ('000 ha)      | 437                                                | 417                                                                                                                     |
| Gross cropped area ('000 ha) | 766                                                | 850                                                                                                                     |
| Cropping intensity (%)       | 100                                                | 170                                                                                                                     |
| Net irrigated area ('000 ha) | 277                                                | 364                                                                                                                     |
| Rainfall (mm)                | 1280                                               | 1040                                                                                                                    |
| Temperature (°C)             | 36 (Summer); 26 (Winter)                           | 40 (Summer); 20 (winter)                                                                                                |
| Soil types                   | Alluvial soils, Red soils, Sandy loams, Sandy clay | Red sandy loams, Clay loams, Alluvial, Sandy alluvial, Deltaic alluvial, Coastal sandy loams, Heavy clays, Saline soils |
| Major crops                  | Coconut, Sugarcane, Maize, Pulses, Tapioca         | Paddy, Sugarcane, Banana, Coconut, Elephant foot yam                                                                    |
| Literacy (%)                 | 80.78                                              | 74.63                                                                                                                   |

### **Selection of Beneficiaries**

Farmers who had interest in taking up scientific interventions were selected by the scientists of ICAR-CTCRI in consultation with the officials of Krishi Vigyan Kendras and State Department of Agriculture/Horticulture. Data on socio-economic background, available resources, farming details, farming practices, knowledge on tuber crops farming, constraints in farming etc. were collected in detail with the active participation of the farmers. Capacity building programmes and demonstrations on improved varieties and technologies were carried out as per approved technical programme and already standardized technologies.

### 3. Quality Inputs for Enhancing Farm Productivity

Providing quality inputs to farmers is a crucial component under SCSP to ensure enhanced farm productivity, increased income, and improved livelihoods. This intervention directly addresses input-related constraints faced by marginalized farmers.

#### Quality Planting Materials of Tropical Tuber Crops

Tropical tuber crops play a vital role in food and nutritional security, particularly in SC dominated regions. Quality planting materials (QPMs) of these crops are meant to enhance productivity and promote income-generating activities in the study areas as given in Table 8, Fig. 5 & 6.

Table 8. Distribution of quality planting materials of tropical tuber crops

| Sl. No. | Crop                                  | Quantity |
|---------|---------------------------------------|----------|
| 1       | Cassava (No. of stems)                | 36,000   |
| 2       | Sweet potato (No. of vine cuttings)   | 60,000   |
| 3       | Chinese potato (No. of stem cuttings) | 3,70,000 |
| 4       | Elephant foot yam (t)                 | 11.75    |
| 5       | Greater yam (t)                       | 3.0      |
| 6       | Taro (t)                              | 1.0      |

#### Distribution of Critical Inputs

Critical inputs refer to essential materials and tools that are necessary for the successful implementation of agricultural and allied activities. Providing timely, need-based, and location-specific critical agricultural inputs helps to enhance productivity, reduce risk, and improve livelihoods of SC farmers. Critical inputs were distributed to 55 SC farmers in Ernakulam and Thiruvananthapuram districts in Kerala and Tenkasi and Tirunelveli districts in Tamil Nadu during 2020-2021. Critical inputs were distributed to 185 SC farmers in Thiruvananthapuram, Alappuzha and Pathanamthitta districts in Kerala and Salem, Namakkal, Pudukkottai, Karur, Tenkasi and Tirunelveli districts in Tamil Nadu during 2021-2022 (Table 9, Fig. 7 & 8).

Table 9. Distribution of critical inputs / machinery to SC beneficiaries

| Sl. No. | Inputs                          | Quantity  |           |
|---------|---------------------------------|-----------|-----------|
|         |                                 | 2020-2021 | 2021-2022 |
| 1       | Chemical fertilizers (t)        | 06        | 27.27     |
| 2       | Micronol for tuber crops (l)    | 100       | 2500      |
| 3       | Vermicompost (t)                | -         | 02        |
| 4       | Micronutrient mixture (t)       | -         | 02        |
| 5       | Biofertilizers (PGPR I) (t)     | -         | 02        |
| 6       | Biocontrol agents (PGPR II) (t) | -         | 02        |

|    |                                      |     |     |
|----|--------------------------------------|-----|-----|
| 7  | AMF (t)                              | -   | 1.6 |
| 8  | Chinese potato grader (No.)          | 1.0 | 1.0 |
| 9  | Cassava slicer (No.)                 | 200 | 8.0 |
| 10 | Knapsack sprayer/Power sprayer (No.) | 55  | 185 |
| 11 | Crow bar (No.)                       | -   | 185 |
| 12 | Pick axe (No.)                       | 45  | 185 |
| 13 | Spade (No.)                          | 45  | 185 |
| 14 | Radio (No.)                          | -   | 185 |
| 15 | Cassava chipping machine(No.)        | 08  | -   |



Fig. 5. Planting materials distribution in Kerala





Fig. 6. Planting materials distribution in Tamil Nadu



Fig.7. Distribution of critical inputs in Kerala



Fig. 8. Distribution of critical inputs / machinery in Tamil Nadu

## 4. Technological Interventions for Inclusive and Sustainable Development

### Frontline Demonstrations (FLDs)

FLDs are an essential extension tool used by agricultural research and development institutions to showcase the performance and benefits of newly released crop varieties and associated production technologies under real farm conditions. The objectives of the FLDs are given below.

- i. To demonstrate the potential of improved varieties and technologies in real farming conditions.
- ii. To educate and motivate farmers to adopt new practices.
- iii. To collect feedback from farmers for further refinement of technologies.
- iv. To prove the economic viability of improved practices.

Steps conducted for implementation of FLDs in selected locations of the project areas in Kerala and Tamil Nadu.

- i. Selection of site and farmers: Based on agro-climatic conditions and interest of the farmers.
- ii. Pre-demonstration training: Orientation to farmers on improved practices and objectives of FLDs.
- iii. Implementation: Comparison of improved practices with traditional farmer practices. Supervision and monitoring by ICAR-CTCRI team and partners.
- iv. Data collection: Growth parameters, yield, pest/disease incidence, economic returns.
- v. Field days and Exposure visits: Organized during the crop growth and harvest phases for wider dissemination.

A total of 249 FLDs on improved varieties and technologies of tropical tuber crops were conducted during the period from 2020-2021 to 2021-2022 in Kerala and Tamil Nadu. The details of improved varieties and technologies are given below.

### Technological Interventions

#### Improved varieties of cassava



##### Sree Reksha

- Year of release: 2017
- Duration (months): 8-9
- Yield (t/ha): 40-45
- Starch content (%): 27-31
- Completely resistant to cassava mosaic disease, tolerant to post-harvest physiological deterioration and drought tolerant
- Recommended states: Kerala, Tamil Nadu



#### **Sree Pavithra**

- Year of release: 2015
- Duration (months): 9-10
- Yield (t/ha): 35-40
- Starch content (%): 25-26
- Excellent cooking quality and high K efficiency (243.65 kg tuber/kg K absorbed)
- Recommended states: Kerala, Tamil Nadu



#### **Sree Athulya**

- Year of release: 2014
- Duration (months): 10
- Yield (t/ha): 35-40
- Starch content (%): 30.20
- Triploid variety with stable and high extractable starch content and drought tolerant
- Recommended states: Irrigated plains of Tamil Nadu, Kerala



#### **Sree Vijaya**

- Year of release: 1998
- Duration (months): 7
- Yield (t/ha): 25-28
- Starch content (%): 27-30
- Erect, branching and early maturing type
- Suitable for lowland as a rotation crop
- Recommended states: Kerala, Tamil Nadu



#### **Sree Jaya**

- Year of release: 1998
- Duration (months): 6-7
- Yield (t/ha): 26-30
- Starch content (%): 24-27
- Excellent cooking quality
- Erect, non-branching and early maturing type
- Recommended states: Kerala, Tamil Nadu

### **Improved varieties of sweet potato**



#### **Sree Arun**

- Year of release: 2002
- Yield (t/ha): 20-28
- Potential yield (t/ha): 30
- Maturity: 90 days
- Starch (%): 19.7-20.4
- Good cooking quality



#### **Sree Varun**

- Year of release: 2002
- Yield (t/ha): 20-28
- Potential yield (t/ha): 30
- Maturity: 90 days
- Starch (%): 20.6-21.5
- Good cooking quality



#### **Sree Kanaka**

- Year of release: 2004
- Yield (t/ha): 10-15
- Potential yield (t/ha): 30
- Maturity: 75-85 days
- Starch (%): 14.7
- Good cooking quality
- $\beta$ -carotene: 9-10mg/100g



#### **Bhu Krishna**

- Year of release: 2017
- Yield (t/ha): 18-22
- Potential yield (t/ha): 22
- Maturity: 110-120 days
- Starch (%): 20-21
- Anthocyanin: 90mg/100g

### **Improved varieties of elephant foot yam**



#### **Gajendra**

- Year of release: 1991
- Yield (t/ha): 42
- Potential yield (t/ha): 55
- Maturity: 7-8 months
- Starch (%): 19.7-20.4
- Good cooking quality



#### **Sree Padma**

- Year of release: 1998
- Yield (t/ha): 42
- Potential yield (t/ha): 80.2
- Maturity: 8-9 months
- Starch (%): 11.5-12.5
- Good cooking quality

### **Improved variety of Chinese potato**



#### **Sree Dhara**

- Year of release: 1993
- Maturity : 4-5 months
- Yield (t/ha): 25
- Potential yield (t/ha): 28
- Starch (%): 16-20
- Suitable for both lowland/upland conditions

### **Site specific nutrient management (SSNM)**

Site specific nutrient management (SSNM) approach aims to enable farmers to dynamically adjust their fertilizer use to optimally fill the deficit between the nutrient needs of a high yielding crop and the nutrient supply from naturally occurring indigenous sources such as soil, crop residues, organic inputs and irrigation water. The SSNM approach aims to apply nutrients at optimal rates and times to achieve high profit for farmers, with high efficiency of

nutrient use by crops across spatial and temporal scales; thereby preventing loss of excess nutrient to the environment.

**Zone-specific SSNM recommendations:** While the SSNM is definitely more efficient in fertilizer use and may increase yield, it is not practical to make site-specific recommendations for each field as soil and plant tissue testing facilities are not always available and the service is too expensive for farmers. The short-term aim is to produce zone NPK recommendation maps of the tuber crops growing areas showing zones with the same SSNM fertilizer recommendations based mainly on existing soil test data, yield data and general crop management practices (rainfed or irrigated), and for a certain target yield. Specific SSNM-based fertilizer recommendations are now available for each zone.

**Customized fertilizer formulations:** Custom-made mixed fertilizers are made according to the specific SSNM recommendations for each zone. Besides the recommended N, P and K, they can be fortified with Mg, Zn and B according to the soil fertility conditions in each zone.

**Foliar liquid micronutrient formulations:** ICAR-CTCRI has developed six microfood formulations containing all the micronutrients essential for cassava/tapioca, sweet potato, elephant foot yam, yams and Chinese potato. The customized liquid micronutrient formulation is commercially available as 'Micronol' in the market. The recommended dose is 5 ml per litre of water for foliar spray for two-three times during different crop growth stages. One litre of the formulation in 200 litres of water is required for spraying in one acre of tuber crops.



Micronutrient formulations for tropical tuber crops

## Post-harvest machinery

**Cassava chipping machine:** Conventional method of chipping cassava tubers by hand-knives produces about 10-40 kg/h, with chip thickness varying from 2.7 to 12.5 mm. The chipping machine developed by ICAR-CTCRI has the advantages such as higher output, low operational cost, moderate initial cost, accommodates all sizes of tubers, easy to operate, requires no special skill to operate, production of uniform chips, adjustable chip thickness, convenience of feeding the tubers into the machine.

The basic parts of the machine are two concentric mild steel drums, the annular space between which is divided into compartments for feeding the tubers. A rotating disc at the bottom of the drum carries



Hand operated chipping machine

the knives assembly. Thickness of chips can be changed by introducing spacing washers between the disc and the blade. Tubers are fed into the compartments from the top and the chips are collected at the bottom. In the hand operated chipping machine, a pair of H.S.S. bevel gears is provided to operate the machine manually with a crank arm. The outturn of the hand-operated cassava chipping machine is 40-120 kg/h with chip thickness ranging from 2.3 to 6.9 mm.

### **Power-operated size based Chinese potato grader**

Chinese potato is one of the important minor tuber crops grown in Tamil Nadu and Kerala in an area of 2000 ha. Chinese potato tubers are graded manually at the farm level which is labour consuming and costly affair. Grading to uniform sizes will increase the market value both in domestic and export markets. A grader for Chinese potato tubers with a capacity of 1 t/hr was developed by ICAR-CTCRI. The developed Chinese potato grader has three laser-cut rotating drums with holes of various diameters and runs at an optimized speed of 10 rpm. The grader is mainly made up of five parts: a feeding chute, a grading drum, guiding rollers, a collection chute and a power transmission system. The overall dimension of the unit is 1650x600x1200 mm. Chinese potato tubers are sorted into four sizes namely small (<20 mm), medium (20.1-30 mm), large (30.1-40 mm) and very large (>40 mm) by the developed grader. The oversized Chinese potato tubers that are greater than 40 mm in size are collected at the other end of the grading drum whereas, the other three grades are collected through the cushioned outlets positioned below the grading drum. It is driven by a 1 HP single-phase electric motor, which includes a 0.5 HP single-phase motor for operating the guiding rollers which rotate at 1100 rpm and are situated in between the rollers to prevent tuber breaking. The grading efficiency of the developed Chinese potato grader was found to be 96%. Depending on the size of the tuber, the rotating drum can be changed. The developed size-based power-operated Chinese potato grader reduces the drudgery of human labour needed in grading the tubers. The total weight of the machine is 200 kg. The cost required to separate one tonne of Chinese potato tubers was calculated to be Rs.150/- including labour and electricity charges. Thus, it shows that mechanical grading of Chinese potato tubers is ten times cheaper than manual grading that saves money, time and manpower.



Power operated size based  
Chinese potato grader



Harvested tubers and different grades of Chinese potato

## Demonstrations on improved varieties and technologies of tropical tuber crops

The details of the demonstrations (249 nos.) conducted in Kerala and Tamil Nadu are given in Table 10 & 11, Fig. 9 & 10.

Table 10. FLDs conducted during 2020-2021

| Sl.No. | Name of the variety/technology                                                          | No. of FLDs | Location                          |
|--------|-----------------------------------------------------------------------------------------|-------------|-----------------------------------|
| 1      | Improved varieties of sweet potato 'Sree Arun, Sree Varun, Sree Kanaka and Bhu Krishna' | 05          | Thiruvananthapuram                |
| 2      | Site Specific Nutrient Management (SSNM) in cassava                                     | 10          | Thiruvananthapuram                |
| 3      | SSNM in elephant foot yam, taro and tannia                                              | 20          | Ernakulam                         |
| 4      | Popularization of liming materials in cassava                                           | 03          | Kollam, Alappuzha, Pathanamthitta |
| 5      | Micronutrient management in cassava                                                     | 03          | Kollam, Alappuzha, Pathanamthitta |
| 6      | Popularization of K efficient variety of cassava 'Sree Pavithra'                        | 03          | Kollam, Alappuzha, Pathanamthitta |
| 7      | Improved variety of Chinese potato 'Sree Dhara'                                         | 08          | Tirunelveli                       |
| 8      | Improved variety of Chinese potato 'Sree Dhara'                                         | 07          | Tenkasi                           |
| 9      | Improved varieties of elephant foot yam 'Gajendra and Sree Padma'                       | 05          | Tenkasi                           |
|        | <b>Total</b>                                                                            | <b>64</b>   |                                   |

Table 11. FLDs conducted during 2021-2022

| Sl.No. | Name of the variety/technology                                                                 | No. of FLDs | Location                                      |
|--------|------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------|
| 1      | Site Specific Nutrient Management (SSNM) in cassava and elephant foot yam                      | 10          | Karode, Thiruvananthapuram                    |
| 2      | Site Specific Nutrient Management in cassava                                                   | 10          | Pallichal, Thiruvananthapuram                 |
| 3      | Improved varieties of sweet potato 'Sree Arun, Sree Varun, Sree Kanaka and Bhu Krishna'        | 06          | Kilimanoor, Thiruvananthapuram                |
| 4      | Improved varieties of cassava 'Sree Pavithra and Sree Reksha' and elephant foot yam 'Gajendra' | 16          | Perumkadavila, Thiruvananthapuram             |
| 5      | Integrated Nutrient Management in tuber crops                                                  | 25          | Kizhuvilam, Thiruvananthapuram                |
| 6      | Site Specific Nutrient Management in cassava                                                   | 05          | Parassala, Thiruvananthapuram                 |
| 7      | Site Specific Nutrient Management in cassava                                                   | 10          | Puliur, Chengalur, Alappuzha                  |
| 8      | Site Specific Nutrient Management in cassava, elephant foot yam and greater yam                | 25          | Mezhuveli, Pathanamthitta                     |
| 9      | Improved varieties of cassava 'Sree Athulya and Sree Reksha'                                   | 07          | Goodamalai, Salem                             |
| 10     | Improved variety of cassava 'Sree Reksha'                                                      | 02          | Kalvarayan Hills, Attur, Salem                |
| 11     | Improved variety of cassava 'Sree Athulya'                                                     | 07          | Kolli Hills, Namakkal                         |
| 12     | Improved variety of cassava 'Sree Athulya'                                                     | 10          | Veeradipatti, Pudukottai                      |
| 13     | Improved varieties of cassava 'Sree Jaya, Sree Vijaya, Sree Pavithra and Sree Reksha'          | 12          | Kanakapillaivalasu, Mekkarai, Tenkasi         |
| 14     | Improved variety of cassava 'Sree Athulya'                                                     | 10          | Mayanur, Karur                                |
| 15     | Improved varieties of elephant foot yam 'Gajendra and Sree Padma'                              | 05          | Pattakuruchi, Tenkasi                         |
| 16     | Improved variety of Chinese potato 'Sree Dhara'                                                | 15          | Manthiyur, Kuthapanjan, Alankulam, Tenkasi    |
| 17     | Improved variety of Chinese potato 'Sree Dhara'                                                | 10          | Pallakkal Pothukudi, Mannarkovil, Tirunelveli |
|        | <b>Total</b>                                                                                   | <b>185</b>  |                                               |



Fig.9. Glimpses of FLDs on improved varieties and technologies of tuber crops conducted in Kerala





Fig.10. Glimpses of FLDs on improved varieties and technologies of tuber crops conducted in Tamil Nadu

### Assessment of Improved Varieties of Tropical Tuber Crops

Assessment was done to evaluate the performance, adaptability, and acceptability of improved tuber crop varieties at farmers' fields. This helps in validating scientific innovations in actual farming systems and promotes large scale adoption through demonstration and feedback. Farmer participatory assessment of varieties was done in project locations in Kerala and Tamil Nadu and the details are given in Table 12 to 15.

Table 12. Assessment of improved varieties of tuber crops in Kerala (2020-2021)

| Sl. No. | Parameters                            | Cassava                                 | Sweet potato            | Elephant foot yam                                  | Taro                     |
|---------|---------------------------------------|-----------------------------------------|-------------------------|----------------------------------------------------|--------------------------|
| 1       | Establishment                         | >98%                                    | >95%                    | >90%                                               | >85%                     |
| 2       | Growth                                | Excellent                               | Very good               | Very good                                          | Good                     |
| 3       | Pests incidence                       | White fly <10%                          | Nil                     | Nil                                                | Nil                      |
| 4       | Diseases incidence                    | CMD <20%                                | Nil                     | Collar rot <5%                                     | Taro leaf blight <5%     |
| 5       | Yield (kg/plant)                      | 4-5                                     | 0.3 -0.5                | 2.5-3.5                                            | 0.65                     |
| 6       | Yield comparison with local varieties | Very good                               | Very good               | Very good                                          | Good                     |
| 7       | Size                                  | Very good                               | Good                    | Very good                                          | Good                     |
| 8       | Shape                                 | Good                                    | Good                    | Very good                                          | Good                     |
| 9       | Quality                               | Very good                               | Very good               | Very good                                          | Good                     |
| 10      | Advantages                            | High yield, K efficient, Very good size | High yield              | High yield, Very good shape and size, Less acidity | High yield, Less acidity |
| 11      | Disadvantages                         | Nil                                     | Improper shape and size | Nil                                                | Nil                      |

Table 13. Assessment of improved variety of Chinese potato in Tamil Nadu (2020-2021)

| Sl. No. | Parameters                            | Chinese potato                                    |
|---------|---------------------------------------|---------------------------------------------------|
| 1       | Establishment                         | >95%                                              |
| 2       | Growth                                | Excellent                                         |
| 3       | Pests incidence                       | Leaf eating caterpillar <5%                       |
| 4       | Diseases incidence                    | Nil                                               |
| 5       | Yield (kg/plant)                      | 0.18-0.25                                         |
| 6       | Yield comparison with local varieties | Very good                                         |
| 7       | Size                                  | Very good                                         |
| 8       | Shape                                 | Very good                                         |
| 9       | Quality                               | Very good                                         |
| 10      | Advantages                            | High yield, Very good size, Tolerance to nematode |
| 11      | Disadvantages                         | Nil                                               |

Table 14. Assessment of improved varieties of tuber crops in Kerala (2021-2022)

| Sl. No. | Parameters                            | Cassava                                        | Sweet potato            | Elephant foot yam                                  | Greater yam      |
|---------|---------------------------------------|------------------------------------------------|-------------------------|----------------------------------------------------|------------------|
| 1       | Establishment                         | >95%                                           | >90%                    | >90%                                               | >90%             |
| 2       | Growth                                | Excellent                                      | Very good               | Very good                                          | Very good        |
| 3       | Pests incidence                       | White fly <10%                                 | Nil                     | Nil                                                | Nil              |
| 4       | Diseases incidence                    | CMD <20%                                       | Nil                     | Collar rot <5%                                     | Anthraxnose <10% |
| 5       | Yield (kg/plant)                      | 4-4.5                                          | 0.35 -0.45              | 2.35-3.75                                          | 1.8-2.3          |
| 6       | Yield comparison with local varieties | Very good                                      | Good                    | Very good                                          | Good             |
| 7       | Size                                  | Very good                                      | Good                    | Very good                                          | Very good        |
| 8       | Shape                                 | Good                                           | Good                    | Very good                                          | Good             |
| 9       | Quality                               | Very good                                      | Very good               | Very good                                          | Good             |
| 10      | Advantages                            | High yield, Nutrient efficient, Very good size | High yield              | High yield, Very good shape and size, Less acidity | High yield       |
| 11      | Disadvantages                         | Nil                                            | Improper shape and size | Nil                                                | Nil              |

Table 15. Assessment of improved varieties of tuber crops in Tamil Nadu (2021-2022)

| Sl. No. | Parameters                            | Cassava                                                             | Elephant foot yam                                  | Chinese potato                                    |
|---------|---------------------------------------|---------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------|
| 1       | Establishment                         | >95%                                                                | >90%                                               | >95%                                              |
| 2       | Growth                                | Excellent                                                           | Very good                                          | Excellent                                         |
| 3       | Pests incidence                       | White fly <10%                                                      | Nil                                                | Leaf eating caterpillar <5%                       |
| 4       | Diseases incidence                    | CMD <5%                                                             | Nil                                                | Nil                                               |
| 5       | Yield (kg/plant)                      | 3.5-4.5                                                             | 2.65-4.20                                          | 0.22-0.28                                         |
| 6       | Yield comparison with local varieties | Very good                                                           | Very good                                          | Very good                                         |
| 7       | Size                                  | Very good                                                           | Very good                                          | Very good                                         |
| 8       | Shape                                 | Good                                                                | Very good                                          | Very good                                         |
| 9       | Quality                               | Very good                                                           | Very good                                          | Very good                                         |
| 10      | Advantages                            | High yield, Nutrient efficient, Very good size, High starch content | High yield, Very good shape and size, Less acidity | High yield, Very good size, Tolerance to nematode |
| 11      | Disadvantages                         | Nil                                                                 | Nil                                                | Nil                                               |

## 5. Capacity Building of Farmers and Stakeholders

Capacity building, also known as capacity development is the process of enhancing the ability of individuals, organizations, or communities to achieve their goals and adapt to change. It involves developing skills, knowledge, resources, and systems to improve performance and effectiveness. Essentially, it's about empowering entities to become more self-reliant and sustainable. The major objectives of the capacity building programmes are

- To improve knowledge and skills on improved varieties and production technologies.
- To promote scientific farming practices and reduce the yield gap.
- To enhance value addition, post-harvest handling, and market linkages.
- To develop entrepreneurship and business models in tuber crops.
- To build resilience to climate change, pests, and diseases.

The target group comprises SC farmers, extension professionals and officials of Krishi Vigyan Kendras (KVKs), input suppliers (nurseries, fertilizer dealers), agripreneurs and rural youth, Farmer Interest Groups (FIGs), Women Self-Help Groups (SHGs), processors and traders and local government bodies. A total of 49 capacity building programmes were organized under ICAR-CTCRI SCSP programme for the benefit of 3334 farmers and other stakeholders in Kerala, Tamil Nadu and Andhra Pradesh (Table 16, Fig. 11, 12 & 13).

Table 16. Capacity building programmes for farmers and stakeholders

| Sl. No. | Title                                                                   | Date and Venue                                         | No. of participants | Coordinators                                                  |
|---------|-------------------------------------------------------------------------|--------------------------------------------------------|---------------------|---------------------------------------------------------------|
| 1       | Improved technologies of tropical tuber crops                           | 18 December 2020<br>Chenkal, Thiruvananthapuram        | 65                  | G. Byju<br>D. Jaganathan<br>B.G. Sangeetha                    |
| 2       | Improved technologies of tropical tuber crops for enhancing farm income | 27 January 2021<br>Pallakkal Pothukudi,<br>Tirunelveli | 75                  | R. Muthuraj<br>D. Jaganathan<br>T. Krishnakumar<br>P. Prakash |
| 3       | Improved technologies of tropical tuber crops                           | 28 January 2021<br>Kizhuvilam, Thiruvananthapuram      | 25                  | K. Susan John                                                 |
| 4       | Improved technologies of tropical tuber crops for enhancing farm income | 29 January 2021<br>Keelapuliur, Tenkasi                | 80                  | D. Jaganathan<br>R. Muthuraj<br>T. Krishnakumar<br>P. Prakash |
| 5       | Improved technologies of tropical tuber crops                           | 10 February 2021<br>Nediyiruppu, Kondotty, Malappuram  | 94                  | G. Byju<br>D. Jaganathan                                      |
| 6       | Improved technologies of tropical tuber crops                           | 12 February 2021<br>Vadakkkekara, Ernakulam            | 105                 | G. Byju<br>D. Jaganathan                                      |
| 7       | Improved technologies of tropical tuber crops                           | 18 February 2021<br>Goodamalai, Salem                  | 84                  | D. Jaganathan<br>R. Muthuraj<br>A.V.V. Koundinya              |
| 8       | Improved technologies of tropical tuber crops                           | 19 February 2021<br>Veeradipatti, Pudukottai           | 115                 | D. Jaganathan<br>R. Muthuraj<br>A.V.V. Koundinya              |

|    |                                                                                       |                                                        |     |                                                               |
|----|---------------------------------------------------------------------------------------|--------------------------------------------------------|-----|---------------------------------------------------------------|
| 9  | Value addition in tropical tuber crops                                                | 25 February 2021<br>Chengannur, Alappuzha              | 20  | M.S. Sajeew<br>G. Byju                                        |
| 10 | Soil health and fertilizer governance in cassava                                      | 26 February 2021<br>Goodamalai, Salem                  | 15  | V. Ramesh                                                     |
| 11 | Value addition in tropical tuber crops                                                | 03 March 2021<br>Vattiyoorkavu, Thiruvananthapuram     | 12  | M.S. Sajeew                                                   |
| 12 | Value addition in tropical tuber crops                                                | 04 March 2021<br>Puliyur, Pathanamthitta               | 250 | M.S. Sajeew<br>G. Byju                                        |
| 13 | Value addition in tropical tuber crops                                                | 06 March 2021<br>Aranmula, Alappuzha                   | 20  | M.S. Sajeew<br>G. Byju                                        |
| 14 | Improved technologies of tropical tuber crops for enhancing farm income               | 10 March 2021<br>Kondapalli, East Godavari             | 123 | G. Byju<br>A.V.V. Koundinya<br>D. Jaganathan<br>M. Janaki     |
| 15 | Improved technologies of tropical tuber crops                                         | 29 July 2021<br>Vadakkekara, Ernakulam                 | 25  | G. Byju<br>D. Jaganathan                                      |
| 16 | Improved technologies of tropical tuber crops                                         | 29 July 2021<br>Thiruvankulam, Ernakulam               | 20  | G. Byju<br>D. Jaganathan                                      |
| 17 | Scientific cultivation of tropical tuber crops                                        | 30 July 2021<br>Kilimanoor, Thiruvananthapuram         | 15  | Sheela Immanuel<br>D. Jaganathan                              |
| 18 | Improved technologies of tropical tuber crops                                         | 13 August 2021<br>Chenkal, Thiruvananthapuram          | 25  | G. Byju<br>D. Jaganathan                                      |
| 19 | Scientific cultivation of tropical tuber crops                                        | 24 August 2021<br>Kuthapanjan, Tenkasi                 | 32  | D. Jaganathan<br>R. Muthuraj<br>P. Prakash<br>T. Krishnakumar |
| 20 | Scientific cultivation of tropical tuber crops                                        | 25 August 2021<br>Pallakal Pothukudi, Tirunelveli      | 28  | R. Muthuraj<br>D. Jaganathan<br>P. Prakash<br>T. Krishnakumar |
| 21 | Value addition in tropical tuber crops for farmers from Parassala, Thiruvananthapuram | 15 September 2021<br>ICAR-CTCRI,<br>Thiruvananthapuram | 20  | M.S. Sajeew<br>T. Krishnakumar                                |
| 22 | Improved technologies of tropical tuber crops                                         | 29 September 2021<br>Goodamalai, Salem                 | 105 | R. Muthuraj<br>P. Prakash<br>K.M. Senthilkumar                |
| 23 | Scientific cassava cultivation                                                        | 30 September 2021<br>Kandarvakottai, Pudukottai        | 15  | R. Muthuraj<br>P. Prakash<br>K.M. Senthilkumar                |
| 24 | Improved technologies of tuber crops for farmers from Kizhuvilam, Thiruvananthapuram  | 12 October 2021<br>ICAR-CTCRI,<br>Thiruvananthapuram   | 50  | K. Susan John<br>E.R. Harish<br>B.G. Sangeetha                |
| 25 | Improved technologies of tropical tuber crops                                         | 16 October 2021<br>Mezhuveli, Pathanamthitta           | 80  | G. Byju<br>D. Jaganathan                                      |
| 26 | Improved technologies and value addition in tropical tuber crops                      | 22 October 2021<br>Parassala, Thiruvananthapuram       | 84  | G. Byju<br>D. Jaganathan<br>A.V.V. Koundinya<br>M.S. Sajeew   |

|    |                                                                                                                                              |                                                                                                 |     |                                                               |
|----|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------|
| 27 | Improved technologies of tropical tuber crops for enhancing farm income                                                                      | 24 November 2021<br>Horticultural, Research Station,<br>Dr. YSRHU,<br>Peddapuram, East Godavari | 92  | G. Byju<br>A.V.V. Koundinya<br>C. Pradeepika<br>M. Janaki     |
| 28 | Improved technologies of tropical tuber crops                                                                                                | 27 November 2021<br>Karode, Thiruvananthapuram                                                  | 116 | G. Byju                                                       |
| 29 | Soil health management for farmers from Kizhuvilam, Thiruvananthapuram                                                                       | 04 December 2021<br>ICAR-CTCRI, Thiruvananthapuram                                              | 30  | K. Susan John<br>V. Ramesh                                    |
| 30 | Improved production technologies and value addition in tropical tuber crops                                                                  | 21 December 2021<br>Mekkarai, Tenkasi                                                           | 120 | R. Muthuraj<br>D. Jaganathan<br>P. Prakash<br>T. Krishnakumar |
| 31 | Improved production technologies of tropical tuber crops                                                                                     | 22 December 2021<br>Mayanur, Karur                                                              | 15  | V. Ramesh                                                     |
| 32 | Improved production technologies and value addition in tropical tuber crops                                                                  | 23 December 2021<br>Rajankhapuram, Tenkasi                                                      | 115 | D. Jaganathan<br>R. Muthuraj<br>T. Krishnakumar<br>P. Prakash |
| 33 | Improved production technologies and value addition in tropical tuber crops                                                                  | 24 December 2021<br>Mannarkovil, Tirunelveli                                                    | 105 | R. Muthuraj<br>D. Jaganathan<br>T. Krishnakumar<br>P. Prakash |
| 34 | Improved agronomic practices and value addition in tropical tuber crops                                                                      | 28 December 2021<br>Perumkadavila,<br>Thiruvananthapuram                                        | 116 | S. Sunitha<br>E.R. Harish                                     |
| 35 | Improved varieties and fertilizer governance in cassava                                                                                      | 23 February 2022<br>Mayanur, Karur                                                              | 72  | V. Ramesh<br>K.M. Senthilkumar                                |
| 36 | Stakeholders interface on Improved technologies of tropical tuber crops                                                                      | 23 February 2022<br>Kolli Hills, Namakkal                                                       | 23  | R. Muthuraj<br>D. Jaganathan                                  |
| 37 | Improved varieties and fertilizer governance in cassava                                                                                      | 24 February 2022<br>Karumanthurai, Attur, Salem                                                 | 60  | V. Ramesh<br>K.M. Senthilkumar                                |
| 38 | Field day cum harvest festival on improved variety of cassava 'Sree Athulya' & Distribution of critical inputs                               | 25 February 2022<br>Goodamalai, Salem                                                           | 89  | D. Jaganathan<br>R. Muthuraj<br>P. Prakash                    |
| 39 | Improved technologies of tropical tuber crops for enhancing farm income                                                                      | 04 March 2022<br>Kovvur, West Godavari                                                          | 105 | D. Jaganathan<br>A.V.V. Koundinya<br>K. Mamatha               |
| 40 | Tuber crops planting festival, distribution of farm inputs and implements                                                                    | 05 March 2022<br>Mezhuveli, Pathanamthitta                                                      | 138 | G. Byju                                                       |
| 41 | Improved technologies and value addition in tropical tuber crops, tuber crops planting festival and distribution of farm inputs & implements | 08 March 2022<br>Pallichal, Thiruvananthapuram                                                  | 110 | G. Byju                                                       |
| 42 | Stakeholders interface on Improved technologies of tuber crops                                                                               | 09 March 2022<br>Mekkarai, Tenkasi                                                              | 35  | D. Jaganathan<br>R. Muthuraj                                  |
| 43 | Stakeholders interface on Improved technologies of tropical tuber crops                                                                      | 10 March 2022<br>Pallakkal, Pothukudi, Tirunelveli                                              | 45  | R. Muthuraj<br>D. Jaganathan                                  |

|              |                                                                                             |                                                        |             |                                                 |
|--------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|-------------------------------------------------|
| 44           | Improved technologies of tropical tuber crops                                               | 11 March 2022<br>Eluphanatham, Salem                   | 66          | V. Ramesh                                       |
| 45           | Improved technologies and value addition in tropical tuber crops                            | 14 March 2022<br>ICAR-CTCRI, Thiruvananthapuram        | 28          | M.S. Sajeev                                     |
| 46           | Improved technologies and value addition in tropical tuber crops                            | 15 March 2022<br>ICAR-CTCRI, Thiruvananthapuram        | 39          | M.S. Sajeev                                     |
| 47           | Improved technologies of tropical tuber crops                                               | 22 March 2022<br>Kizhuvilam, Thiruvananthapuram        | 25          | K. Susan John                                   |
| 48           | Stakeholders Interface on Mechanization in Chinese potato & Distribution of critical inputs | 23 March 2022<br>ADA Office, Ambasamudram, Tirunelveli | 85          | T. Krishnakumar<br>R. Muthuraj<br>D. Jaganathan |
| 49           | Stakeholders Interface on Mechanization in Chinese potato & Distribution of critical inputs | 23 March 2022<br>KeezhaKuthapanjan, Alangulam, Tenkasi | 123         | T. Krishnakumar<br>R. Muthuraj<br>P. Prakash    |
| <b>Total</b> |                                                                                             |                                                        | <b>3334</b> |                                                 |





Fig.11. Glimpses of capacity building programmes organized in Kerala





Fig.12. Glimpses of capacity building programmes organized in Tamil Nadu



Fig.13. Glimpses of capacity building programmes organized in Andhra Pradesh

## 6. Budget Utilization

### Empowerment of farmers through tuber crops based technological interventions (ICAR-CTCRI SCSP Programme)

| Year      | Budget (Rs. in lakhs) | Utilization% |
|-----------|-----------------------|--------------|
| 2020-2021 | 35.0                  | 100          |
| 2021-2022 | 71.2                  | 100          |

## 7. Output of the Programme

- Demonstrations established in the project locations have proved that improved varieties and technologies performed better with respect to yield, cost benefit ratio, soil health improvement and overall system productivity.
- Productivity and profitability of tuber crops through improved varieties and technologies in tropical tuber crops were documented. The demonstrated technologies are given to KVKs, Department of Agriculture/Horticulture and other line departments for popularization and scaling up of the technologies in larger areas for enhancing farmers' income on a sustainable basis.
- These demonstrations will serve as model plots for other farmers to adopt improved technologies in tuber crops farming, which warrant the efforts from all stakeholders viz., ICAR-CTCRI, Department of Agriculture/Horticulture, Krishi Vigyan Kendra, farmers, input agencies, marketing traders etc.

- States covered: 3
- Districts covered: 13
- Farmers trained: 3334
- Planting materials distributed: Cassava (No. of stems): 36,000; Sweet potato (No. of vine cuttings): 60,000; Chinese potato (No. of stem cuttings): 3,70,000; Elephant foot yam (t): 11.75; Greater yam (t):3.0; Taro (t):1.0
- Capacity building programmes: 49
- FLDs conducted: 249
- Farmers covered: 3583
- Yield increase: 15-22%
- Farm income increase: 12-28%

## 8. Annexures

### Annexure I

#### List of Beneficiaries: SCSP Programme of ICAR-CTCRI (2020-2021)

##### Improved varieties of sweet potato in Thiruvananthapuram, Kerala

| Sl.No. | Name & Address of the farmer                            |
|--------|---------------------------------------------------------|
| 1      | Shri. K. Thulaseedharan, Kilimanoor, Thiruvananthapuram |
| 2      | Smt. K. Thulasi, Kilimanoor, Thiruvananthapuram         |
| 3      | Smt. O. Lija, Kilimanoor, Thiruvananthapuram            |
| 4      | Smt. T. Omana, Kilimanoor, Thiruvananthapuram           |
| 5      | Shri. K. Sukumaran, Kilimanoor, Thiruvananthapuram      |

##### Site Specific Nutrient Management (SSNM) in cassava in Thiruvananthapuram, Kerala

| Sl.No. | Name & Address of the farmer                      |
|--------|---------------------------------------------------|
| 1      | Shri. Ajayakumar P., Chenkal, Thiruvananthapuram  |
| 2      | Smt. Anithakumari S., Chenkal, Thiruvananthapuram |
| 3      | Shri. Mohan Das N., Chenkal, Thiruvananthapuram   |
| 4      | Shri. Babu C., Chenkal, Thiruvananthapuram        |
| 5      | Shri. Rajan K., Chenkal, Thiruvananthapuram       |
| 6      | Shri. Sanu S.S., Chenkal, Thiruvananthapuram      |
| 7      | Shri. Vijayan K., Chenkal, Thiruvananthapuram     |
| 8      | Smt. Lavy J., Chenkal, Thiruvananthapuram         |
| 9      | Smt. Geetha S., Chenkal, Thiruvananthapuram       |
| 10     | Shri. Valsalam E., Chenkal, Thiruvananthapuram    |

##### SSNM in elephant foot yam, taro and tannia in Ernakulam, Kerala

| Sl.No. | Name & Address of the farmer                     |
|--------|--------------------------------------------------|
| 1      | Smt. Jayanthi P.C., Thiruvankulam, Ernakulam     |
| 2      | Shri. Sajeevan K.K., Thiruvankulam, Ernakulam    |
| 3      | Shri. Damodaran, Thiruvankulam, Ernakulam        |
| 4      | Shri. Aji K.K., Thiruvankulam, Ernakulam         |
| 5      | Smt. Shaila, Thiruvankulam, Ernakulam            |
| 6      | Shri. Biju, Thiruvankulam, Ernakulam             |
| 7      | Smt. Latha E.T., Thiruvankulam, Ernakulam        |
| 8      | Shri. Supran, Thiruvankulam, Ernakulam           |
| 9      | Shri. Anil K. Chandran, Thiruvankulam, Ernakulam |
| 10     | Smt. Reshgil Remeshan, Thiruvankulam, Ernakulam  |
| 11     | Shri. Anil Kumar T.C., Vadakkekara, Ernakulam    |
| 12     | Smt. Saina N.K., Vadakkekara, Ernakulam          |
| 13     | Shri. Valsalan K.P., Vadakkekara, Ernakulam      |
| 14     | Smt. Remadevi K.K., Vadakkekara, Ernakulam       |
| 15     | Smt. Mini M.V., Vadakkekara, Ernakulam           |
| 16     | Smt. Giriya V.K., Vadakkekara, Ernakulam         |
| 17     | Smt. Vilasini, Vadakkekara, Ernakulam            |
| 18     | Smt. Latha P. Dasan, Vadakkekara, Ernakulam      |
| 19     | Shri. Murali T.C., Vadakkekara, Ernakulam        |
| 20     | Smt. Remani Prabhakaran, Vadakkekara, Ernakulam  |

### Popularization of liming materials in cassava in Alappuzha, Kollam and Pathanamthitta, Kerala

| Sl.No. | Name & Address of the farmer                                                 |
|--------|------------------------------------------------------------------------------|
| 1      | Smt. Athira Sujith, Sreesankaralayam, Thriperumthura, Mavelikkara, Alappuzha |
| 2      | Shri. Gopalan K., Plavila Veedu, Perumkulam, P.O., Kalayapuram, Kollam       |
| 3      | Shri. Podiyan V.R., Vengalathil Veedu, Chalappally, Pathanamthitta           |

### Micronutrient management in cassava in Alappuzha, Kollam and Pathanamthitta, Kerala

| Sl.No. | Name & Address of the farmer                                                         |
|--------|--------------------------------------------------------------------------------------|
| 1      | Smt. Sulekha Ravindran, Thettavilayil House, Kudassanadu P.O., Alappuzha             |
| 2      | Shri. Adichan K., Palavila Veedu, Perumkulam, Kalayapuram, Kollam                    |
| 3      | Shri. K.J. Soman, Kattaparambil House, Keezhvaipur P.O., Mallappally, Pathanamthitta |

### Popularization of K efficient cassava variety 'Sree Pavithra' in Alappuzha, Kollam and Pathanamthitta, Kerala

| Sl.No. | Name & Address of the farmer                                             |
|--------|--------------------------------------------------------------------------|
| 1      | Shri. Praveen S Anand, Plavilayil House, Kudassanad, Pandalam, Alappuzha |
| 2      | Shri. K. Velappan, Vayalil Veedu, Kalayapuram, Kollam                    |
| 3      | Shri. Kunjukuttan P.R., Parayil House, Ezhumattur, Pathanamthitta        |

### Improved variety of Chinese potato in Tirunelveli, Tamil Nadu

| Sl.No. | Name & Address of the farmer                              |
|--------|-----------------------------------------------------------|
| 1      | Shri. Velsami Subramani, Pallakkal Pothukudi, Tirunelveli |
| 2      | Shri. Murugan M., Pallakkal Pothukudi, Tirunelveli        |
| 3      | Shri. C. Athimoolam, Pallakkal Pothukudi, Tirunelveli     |
| 4      | Shri. Alagumuthu C., Pallakkal Pothukudi, Tirunelveli     |
| 5      | Shri. P. Mukilan, Pallakkal Pothukudi, Tirunelveli        |
| 6      | Shri. S. Paramasivan, Pallakkal Pothukudi, Tirunelveli    |
| 7      | Smt. Esakkiammal M., Pallakkal Pothukudi, Tirunelveli     |
| 8      | Smt. Petchiammal S., Pallakkal Pothukudi, Tirunelveli     |

### Improved variety of Chinese potato in Tenkasi, Tamil Nadu

| Sl.No. | Name & Address of the farmer                      |
|--------|---------------------------------------------------|
| 1      | Shri. Murugan P., Keezhakuthapanjan, Tenkasi      |
| 2      | Shri. E. Arumugam, Keezhakuthapanjan, Tenkasi     |
| 3      | Shri. Gnana Muthu A., Keezhakuthapanjan, Tenkasi  |
| 4      | Shri. Selvaraj M., Keezhakuthapanjan, Tenkasi     |
| 5      | Shri. S. Selvaraj, Keezhakuthapanjan, Tenkasi     |
| 6      | Shri. S. Palani, Keezhakuthapanjan, Tenkasi       |
| 7      | Shri. S. Ravichandran, Keezhakuthapanjan, Tenkasi |

### Improved variety of elephant foot yam in Tenkasi, Tamil Nadu

| Sl.No. | Name & Address of the farmer                |
|--------|---------------------------------------------|
| 1      | Shri. Paramasivam M., Keelapuliyur, Tenkasi |
| 2      | Shri. Esakkimuthu R., Keelapuliyur, Tenkasi |
| 3      | Shri. Krishnan S., Keelapuliyur, Tenkasi    |
| 4      | Shri. Paramasivan S., Keelapuliyur, Tenkasi |
| 5      | Shri. Esakki S., Keelapuliyur, Tenkasi      |

## List of Beneficiaries: SCSP Programme of ICAR-CTCRI (2021-2022)

### Site Specific Nutrient Management (SSNM) in cassava and elephant foot yam in Thiruvananthapuram, Kerala

| Sl.No. | Name & Address of the farmer                                                                                  |
|--------|---------------------------------------------------------------------------------------------------------------|
| 1      | Shri. Rajan T., Kunnuvula Veedu, Erichalloor, Plamoottukada P.O., Thiruvananthapuram 695122                   |
| 2      | Shri. Arun J., Vembankudivila Veedu, Kanthalloor, Plamoottukada P.O., Thiruvananthapuram 695122               |
| 3      | Smt. Athira Gopi, Keppavila Veedu, Cheruvarakonam P.O., Manchamkuzhi, Karode, Thiruvananthapuram 695502       |
| 4      | Shri. Jayan A., Konnavilakathu Veedu, Erichalloor, Plamoottukada P.O., Thiruvananthapuram 695122              |
| 5      | Shri. Krishnan M., Thidumanvila Puthen Veedu 595, Ayira P.O., Thidumanvila, Karode, Thiruvananthapuram 695502 |
| 6      | Smt. Sobhana S., Mannathuvila Veedu, Erichalloor, Plamoottukada P.O., Karode, Thiruvananthapuram 695122       |
| 7      | Smt. Sunikumari S., Puthuvila Puthan Veedu, Kulathoor, Uchakkada P.O., Thiruvananthapuram 695206              |
| 8      | Smt. Suseela S., Sheeja Bhavan, Ayira P.O., Kakkathachanvila, Karode, Thiruvananthapuram 695502               |
| 9      | Smt. Vijayalalitha B., Idakandam Manjankuzhi Cheruvarakonam P.O., Karode, Thiruvananthapuram 695502           |
| 10     | Shri. Vijayan D., Kizhakkekara Veedu 221, Velliyamkottukonam, Chenkavila P.O., Thiruvananthapuram 695502      |

### Site Specific Nutrient Management (SSNM) in cassava in Thiruvananthapuram, Kerala

| Sl.No. | Name & Address of the farmer                                                                                             |
|--------|--------------------------------------------------------------------------------------------------------------------------|
| 1      | Smt. Sailaja P., Anu Bhavan, Thannivila, Vedivachancoil P.O., Pallichal, Thiruvananthapuram 695501                       |
| 2      | Shri. Raveendran A., Vaniyamcode, Kizhakkumkara puthan veedu, Koovalassaery, Maranalloor P.O., Thiruvananthapuram 695512 |
| 3      | Shri. Manian N., Thottathuvilakathu veedu, Edacode, Nemom P.O., Pallichal, Thiruvananthapuram 695020                     |
| 4      | Smt. Prasanna G., Nellivila veedu, Arukalkonam, Naruvammoodu P.O., Pallichal, Thiruvananthapuram 695020                  |
| 5      | Shri. Vijayan K., Arya Bhavan, Swathi Nagar, Nemom P.O., Pallichal, Thiruvananthapuram 695020                            |
| 6      | Shri. Aji S., Vattavilaputhen veedu, Vellapalli, Naruvammoodu P.O., Pallichal, Thiruvananthapuram 695020                 |
| 7      | Smt. Sheeja S., Thunduvila veedu, Keleswaram, Kalliyoore P.O., Thiruvananthapuram 695042                                 |
| 8      | Shri. Suresh, Vattavila veedu, Vellappally, Naruvammoodu P.O., Pallichal, Thiruvananthapuram 695020                      |
| 9      | Shri. Sanil Kumar N., Mini Bhavan, Vattavila, Vellapalli, Naruvammoodu P.O., Pallichal, Thiruvananthapuram 695020        |
| 10     | Shri. Kuttappan G., Abilash Bhavan, Edukathukonam, Malavila, Vedivachancoil P.O., Pallichal, Thiruvananthapuram 695501   |
| 11     | Smt. Rajani L., Karakkadu, Puthuval, Mariyapuram P.O., Chenkal, Thiruvananthapuram 695122                                |
| 12     | Smt. Saranya S., Kulathinkara Meleputhen Veedu, Ezhakonam, Vattavila P.O., Chenkal, Thiruvananthapuram 695132            |
| 13     | Smt. Suraja G., Akkakulavarambu Veedu, Arayur P.O., Chenkal, Thiruvananthapuram 695122                                   |
| 14     | Shri. Raveendran S., Chirakkara Thoppu Veedu, Kodavilakam, Parassala P.O., Thiruvananthapuram 695502                     |
| 15     | Smt. Premakumari S., Vengasherivila Veedu, Parasuvaikkal P.O., Thiruvananthapuram 695508                                 |

### Improved varieties of sweet potato in Thiruvananthapuram, Kerala

| Sl.No. | Name & Address of the farmer                                                                                                          |
|--------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Shri. Sukumaran S., Kudakkalanpoikaveedu, Malackal P.O., Panappamkunnu, Kilimanoor, Thiruvananthapuram 695602                         |
| 2      | Smt. Radha K., Patharayil veedu, Malakkal P.O., Kilimanoor, Thiruvananthapuram, 695602                                                |
| 3      | Shri. Sunil S., Raveendra Vilasam, Vellarackal, Panappamkunnu malakkal P.O., Kilimanoor, Madavoorpallickal, Thiruvananthapuram 695602 |

|   |                                                                                                                    |
|---|--------------------------------------------------------------------------------------------------------------------|
| 4 | Smt. Sasikala, Gopavilasam, Chalil Mulavana, Madavoor P.O., Madvoor, Njarayilkonam, Thiruvananthapuram 695602      |
| 5 | Smt. Girija, Vilayil Veedu Thoppil Kilimanoor Village, Keezthonnakkal, Mulakkalathukavu, Thiruvananthapuram 695614 |
| 6 | Shri. Gopalan, Kizhakkumkara Veedu, Malackal, Malackal P.O., Madavoor Thiruvananthapuram 695602                    |

### Improved varieties of cassava and elephant foot yam in Thiruvananthapuram, Kerala

| Sl.No. | Name & Address of the farmer                                                                                                         |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Smt. Ambili, Sree ragam, Ancode, Perumkadavila, Thiruvananthapuram 695124                                                            |
| 2      | Smt. Reena S.B., Kamala Bhavan, Konathuvilakam, Chulliyoor, Maryamuttom P.O., Thiruvananthapuram 695124                              |
| 3      | Shri. Thankappan C., Vellikuzhi, Kizhakkekaraveedu, Maryamuttom, Thiruvananthapuram 695124                                           |
| 4      | Smt. Sindhu O., B.S. Bhavan, Karikkathil, Chulliyoor, Marayamuttom, Thiruvananthapuram 695124                                        |
| 5      | Smt. Vichithra V.T., Thoppil Meleputhenveedu, Chulliyoor, Marayamuttom, Thiruvananthapuram 695124                                    |
| 6      | Shri. Kuttan H., Priyanka Bhavan, 1354, Vazhavila, Ancode, Perumkadavila, Thiruvananthapuram                                         |
| 7      | Shri. Sreedharan R., Shaibu Bhavan, 255, Palkulangara, Alathoor, Anavoor P.O., Thiruvananthapuram 695124                             |
| 8      | Smt. Prameela Kumari K., Praveen Nivas, Neelarathalamele, Chemmannuvila, 262, Vadakara, Marayamuttom P.O., Thiruvananthapuram 695124 |
| 9      | Smt. Lekha V.V., Vaishnav Bhavan, 1453, Vallichira, Koranamcode, Kottackal P.O., Thiruvananthapuram 695124                           |
| 10     | Smt. Revathi V.J., Edavila Puthen Veedu, 56, Vallichira, Kottackal P.O., Thiruvananthapuram 695124                                   |
| 11     | Shri. Kesari K., Ampalatharavilakathu Veedu, 372, Mooverikkara, Kunnathukal, Karakonam P.O., Thiruvananthapuram 695504               |
| 12     | Smt. Beena Pottanchira, Ambalatharavilakam Puthen Veedu, 367, Kunnathukal, Karakonam P.O., Thiruvananthapuram 695504                 |
| 13     | Smt. Vrinda L. Sundar, Karaikattuvela Veedu, 205, Narani, Kunnathukal, Karakonam P.O., Thiruvananthapuram 695504                     |
| 14     | Smt. Vijayakumari T., Amal Bhavan, 8, Roadarikathuveedu, Alumpara, Kunnathukal, Karakonam P.O., Thiruvananthapuram 695504            |
| 15     | Smt. Vinitha T., Vishnu Bhavan, Kongumcode, Elluvila P.O., Thiruvananthapuram 695504                                                 |
| 16     | Smt. Manjusha S., Feba Bhavan, Thoovancodu, Koranamcodu, Kottackal P.O., Thiruvananthapuram                                          |

### Integrated Nutrient Management in Thiruvananthapuram, Kerala

| Sl.No. | Name & Address of the farmer                                                                   |
|--------|------------------------------------------------------------------------------------------------|
| 1      | Smt. Ambili S., Vayalil veedu, 262, Adikalam, Koonthalloor, Chirayinkeezhu, Thiruvananthapuram |
| 2      | Smt. Shyna I.S., Adeekalathu veedu, Koonthalloor, Chirayinkeezhu, Thiruvananthapuram           |
| 3      | Smt. Shobha L., S.S. Nivas, 653, Chirayinkeezhu, Thiruvananthapuram                            |
| 4      | Smt. Suja V., Archa Bhavan, Chirakkal, Chittattumukku P.O., Kadinamkulam, Thiruvananthapuram   |
| 5      | Smt. Lekshmi Sree V., Sree Bhavan, 309, Valiya Elayi, Puravoor, Thiruvananthapuram             |
| 6      | Smt. Sathi S., M.S. Bhavan, Pammamcodu, Mudapuram, Chirayinkeezhu, Thiruvananthapuram          |
| 7      | Smt. Saranya S.K., Kunubanglow veedu, Ambedkar gramam, Kurakkada, Thiruvananthapuram           |
| 8      | Shri. Anil S., Mupparathitta Veedu, 153, Koonthalloor, Chirayinkeezhu, Thiruvananthapuram      |
| 9      | Smt. Mallika V., Mevarthuvilakam, 729, Chittatinkara, Kizhuvilam, Attingal, Thiruvananthapuram |
| 10     | Smt. Sulekha A., Vayalil veedu, Thennoorkonam, Kizhuvilam, Chirayinkeezhu, Thiruvananthapuram  |
| 11     | Shri. Rajedran K., Thennurkonath veedu, Mudapuram, Kizhuvilam, Thiruvananthapuram              |
| 12     | Shri. Mohanlal, Lal Bhavan, Adeekalam, Koonthalloor, Chirayinkeezhu, Thiruvananthapuram        |
| 13     | Smt. Sheeba A.S., Utradam, Ambedkar Gramam, Kurakkada, Kizhuvilam, Thiruvananthapuram          |
| 14     | Shri. Gopakumar G., Gopika Bhavan, 202, Kizhuvilam, Chirayinkeezhu, Thiruvananthapuram         |

|    |                                                                                              |
|----|----------------------------------------------------------------------------------------------|
| 15 | Smt. Anu S.A., Karthika, Adeekkalam, Chirayinkeezhu, Thiruvananthapuram                      |
| 16 | Shri. Shaiju S., Adeekkalm, Valiyaela, Chirayinkeezhu, Thiruvananthapuram                    |
| 17 | Smt. Padmini G., Charuvila veedu, Kadayara, Kizhuvilam, Koonthalloor, Thiruvananthapuram     |
| 18 | Smt. Sulabha S., Sulabha Bhavan, 323, Kizhuvilam, Chirayinkeezhu, Thiruvananthapuram         |
| 19 | Smt. Anila S., Malarvadi veedu, Koonthalloor, Chirayinkeezhu, Thiruvananthapuram             |
| 20 | Smt. Rama M., Plavila veedu, 456, Kattumpuram, Chirayinkeezhu, Thiruvananthapuram            |
| 21 | Smt. A.S. Sheeja, Vilayil veedu, Ambedkar gramam, Kurakkada, Kizhuvilam, Thiruvananthapuram  |
| 22 | Shri. Vijayan R.K., Ajantha, Koonthalloor, Chirayinkeezhu, Thiruvananthapuram                |
| 23 | Smt. Prasannakumary A., Melathuil veedu, Kizhuvilam, Mamom, Thiruvananthapuram               |
| 24 | Shri. Jayamohan K.R., Pillaveed, 164, Kizhuvilam, Chirayinkeezhu, Thiruvananthapuram         |
| 25 | Smt. Manju V., Vayalthitta, Korattuvilakom, Koonthalloor, Chirayinkeezhu, Thiruvananthapuram |

### Site Specific Nutrient Management in cassava in Alappuzha, Kerala

| Sl.No. | Name & Address of the farmer                                                                      |
|--------|---------------------------------------------------------------------------------------------------|
| 1      | Shri. Maheswaran P.K., Pottamel Thekkethil, 99, Thonackadu, Puliyoar P.O., Alappuzha 689511       |
| 2      | Shri. Madhavan, Iylitharayil, 95, Perissery, Puliyoar P.O., Alappuzha 689511                      |
| 3      | Smt. Kamalamma, Chathamel Padeethethil, 117, Thonackadu, Puliyoar P.O., Alappuzha, 689511         |
| 4      | Shri. Divakaran C., Thonackadu, Puliyoar P.O., Alappuzha 689511                                   |
| 5      | Shri. Krishnankutty, Kannattil kuttiyl, 166, Thonackadu, Puliyoar P.O., Alappuzha, Kerala, 689511 |
| 6      | Shri. Anilkumar K., Idayilatharayil, 542, Thonackadu, Puliyoar P.O., Alappuzha, 689511            |
| 7      | Smt. Vanaja T.P., Perumpalathu, 12, Perissery, Puliyoar P.O., Alappuzha 689126                    |
| 8      | Smt. Maya G., Chennathu Laksham veedu, 254, Elanjimel, Puliyoar P.O., Alappuzha 689511            |
| 9      | Smt. Omana T.K., Perumpalathu house, Perissery, Puliyoar P.O., Alappuzha 689126                   |
| 10     | Shri. Sarath K.S., Kannuttu vilayil, Nottavanpara P.O., Alappuzha 689121                          |

### Site Specific Nutrient Management in cassava, elephant foot yam and greater yam in Pathanamthitta, Kerala

| Sl.No. | Name & Address of the farmer                                                                        |
|--------|-----------------------------------------------------------------------------------------------------|
| 1      | Smt. Sreelekha K., ThooniyodePuthen Veedu, Elavumthitta P.O., Pathanamthitta 689625                 |
| 2      | Shri. Janardanan K., Koyikkal Melethil, Elavumthitta P.O., Pathanamthitta 689625                    |
| 3      | Smt. Sasikala Asok, Sreenilayam Pullelil, Mezhuveli P.O., Pathanamthitta 689507                     |
| 4      | Smt. Shyamala T.A., ThekkanKoikkal, Elavumthitta P.O., Pathanamthitta 689625                        |
| 5      | Smt. Rema Ratheesh, Naduvathukotta, Mezhuveli P.O., Pathanamthitta 689507                           |
| 6      | Shri. Anandu S., Sunil Bhavan, Elavumthitta P.O., Pathanamthitta 689625                             |
| 7      | Smt. Vijayamma K.V., Chitalayam, Elavumthitta P.O., Pathanamthitta 689625                           |
| 8      | Shri. Rajan B.K., Pulakulanjiyil, Elavumthitta P.O., Pathanamthitta 689625                          |
| 9      | Shri. Raju V.V., Vattamukadiyil, Ullannoor P.O., Pathanamthitta 689503                              |
| 10     | Shri. Shaji C.P., Cheriyathu., Karithotta P.O., Kidangannur, Pathanamthitta 689514                  |
| 11     | Smt. Podiyamma, Kuruttumodiyil, KuravanPrakkal, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625 |
| 12     | Shri. Padmanabhan Ganapathy, Vathiparambil, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625     |
| 13     | Smt. Ambili C.R., Mithuna Bhavan, Manjathara, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625   |
| 14     | Shri. Rajan P.N., ParappurathuMemuriyil, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625        |
| 15     | Smt. Sruthi Sunil, Sunil Bhavan, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625                |
| 16     | Smt. Sudhamani S., Namakuzhiyil, Ayathil, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625       |
| 17     | Smt. Ponnamma M.T., Kizhakekara, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625                |
| 18     | Shri. Sarath T.S., Thadathil Vadakkethil, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625       |
| 19     | Smt. Usha, Manjatharayil, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625                       |
| 20     | Smt. Rajani K.C., Manjatharayil, Renju Bhavan, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625  |

|    |                                                                                          |
|----|------------------------------------------------------------------------------------------|
| 21 | Smt. Ahalya V Raghavan, Anilalayam, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625  |
| 22 | Smt. Kamalamma, Manjatharayil, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625       |
| 23 | Smt. Nisha T.P., KarthiNivas, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625        |
| 24 | Smt. Geetha K., Vathiparambil, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625       |
| 25 | Smt. Chellamma V.K., ThadathilVeedu, Elavumthitta P.O., Mezhuveli, Pathanamthitta 689625 |

### Improved varieties of cassava in Salem, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                                      |
|--------|-----------------------------------------------------------------------------------|
| 1      | Shri. Subramaniyan M., Therku kadu, Goodamalai P.O., Gangavalli, Salem 636105     |
| 2      | Shri. Karnan Gopal, Ambedhkar nagar, Goodamalai P.O., Gangavalli, Salem 636105    |
| 3      | Shri. Karuthappillai P., Kattukottay Pagadppadi, Vellaiyur, Salem 636116          |
| 4      | Shri. Ramachandran K., Ambedhkar nagar, Goodamalai P.O., Gangavalli, Salem 636105 |
| 5      | Shri. Periyasamy V., Ganesapuram, Gangavalli, Salem 636105                        |
| 6      | Shri. Kaliyamoorthi S., Pillayar Kovil Street, Periyeri, Attur, Salem 636101      |
| 7      | Smt. Mathiga, Therku kadu, Goodamalai P.O., Salem 636105                          |

### Improved varieties of cassava in Salem, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                                             |
|--------|------------------------------------------------------------------------------------------|
| 1      | Shri. M. Mohanraj, South Adidraavidar Street, Thumbal P.O., Attur, Salem 636114          |
| 2      | Smt. Saranya Sethurathinam, South Adidraavidar Street, Thumbal P.O., Attur, Salem 636114 |

### Improved varieties of cassava in Namakkal, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                                  |
|--------|-------------------------------------------------------------------------------|
| 1      | Shri. Manivel Karuppaiya, Selurkaspa, Selurnadu, Adukkam, Namakkal 637411     |
| 2      | Shri. Ganesan Rangasamy, Adukkampatti, Selurnadu, Namakkal 637411             |
| 3      | Shri. Subramani Andi, Selurkaspa, Selurnadu, Adukkam, Namakkal 637 411        |
| 4      | Shri. Ravikumar Natarajan, Veeraganurpatti, Selurnadu, Namakkal 637 411       |
| 5      | Shri. Kannan Duraisamy, Selurkaspa, Selurnadu, Adukkam, Namakkal 637 411      |
| 6      | Shri. Anburaj Kandhasamy, Veeraganurpatti, Selurnadu, Namakkal 637 411        |
| 7      | Smt. Priya Selvendran, Selur Kashpa, Arukkampatti, Selurnadu, Namakkal 637411 |

### Improved varieties of cassava in Pudukkottai, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                                                                    |
|--------|-----------------------------------------------------------------------------------------------------------------|
| 1      | Shri. Bhuvaneshwaran G., Arisana street, Periyakkottai, Gandarvakottai, Pudukkottai 613301                      |
| 2      | Shri. Pandiyan M., Arisana Street, Mohanur, Gandarvakottai, Periyakkottai, Pudukkottai 613301                   |
| 3      | Shri. Saravanakumar V., North Arisana Street, Gandarvakottai, Mudukulam, Kurungulam Melathi, Pudukkottai 613303 |
| 4      | Smt. Kanmani T, Colony Street, Pudhu Nagar, Gandarvakottai, Pudunagar, Pudukkottai 613301                       |
| 5      | Shri. Udayakumar T., Arisana street, Veeradipatti, Mattankal, Gandarvakottai, Pudukkottai 613301                |
| 6      | Smt. Mekkai S., Arisana Colony, Mattangal post, Gandarvakottai, Veeradipatti, Pudukkottai 613301                |
| 7      | Shri. Annadurai K., Colony theru, Thethuvasalpatti, Gandarvakottai, Pudukkottai 613303                          |
| 8      | Shri. Ramachandran M., Kolany street, Thethuvasalpatti, Gandarvakottai, Pudukkottai 613 303                     |
| 9      | Shri. Ayyasamy M., Adithiravidar Street, Veeradipatti, Gandarvakottai, Pudukkottai 613 301                      |
| 10     | Shri. Anandharaj A, Arisana Street, Periyakkottai, Gandarvakottai, Pudukkottai 613301                           |

### Improved varieties of cassava in Tenkasi, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                                              |
|--------|-------------------------------------------------------------------------------------------|
| 1      | Shri. Muthu C., Main road, Puthupalam, Mekkarai, Panpoli Post, Achanpudur, Tenkasi 627803 |
| 2      | Smt. Kaliyammal K., Main Road, Mekkarai, Panpozhi Post, Achanpudur, Tenkasi 627803        |

|    |                                                                                                     |
|----|-----------------------------------------------------------------------------------------------------|
| 3  | Shri. Maheshkumar M., Dam Road, Mekkarai, Panpozhi Post, Achanpudur, Tenkasi 627803                 |
| 4  | Smt. Kaliammal P., Dam Road, Mekkarai, Achanpudur, Panpozhi, Tenkasi 627803                         |
| 5  | Smt. Pramila E., North Street, Vallavankottai, Madhavakurichi, Tenkasi 627803                       |
| 6  | Smt. Maheswari M., Dam Road, Mekkarai, Panpozhi Post, Achanpudur, Tenkasi 627803                    |
| 7  | Shri. Petchimuthu R., Puthupalam, Main Road, Mekkarai, Panpozhi Post, Achanpudur, Tenkasi 627803    |
| 8  | Shri. Pitchiah M., Ulagamman Kovil street, Thenpothai, Tenkasi 627809                               |
| 9  | Shri. Ravi Sundararajan A., Alamarathu Street, Meenatchipuram, Thenpothai, Panpozhi, Tenkasi 627807 |
| 10 | Shri. Gopalakrishnan K., School street, Meenakshipuram, Panpozhi, Tenkasi 627 807                   |
| 11 | Shri. Velasamy Akinimatan, Indra colony, Kanakkupillaivalasai, Shenkottai, Tenkasi 627 803          |
| 12 | Shri. Petchimuthu Gomu, Indra colony, Kanakkupillaivalasai, Tenkasi 627 803                         |

### Improved varieties of cassava in Karur, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                                                          |
|--------|-------------------------------------------------------------------------------------------------------|
| 1      | Shri. M. Kalyani, 11, K.P. Kulam, Manavasi, Krishnarayapuram Taluk, Karur 639108                      |
| 2      | Shri. V. Perumal, 78, Colony Street, Keelamunayanur, Sithalavai, Karur 639102                         |
| 3      | Smt. Rani, 11, K.P. Kulam, Manavasi, Krishnarayapuram Taluk, Karur 639108                             |
| 4      | Shri. Murugan Shamban, 1-A, Rasagoundanoor, Uppidamangalam, Karuppur, Karur 639108                    |
| 5      | Shri. Karunakaran P., 1/187-A, Sankaramalaipatti, Karuppur post, Mayanur, Karur 639108                |
| 6      | Shri. Edumban P., 28 A.D. Street, Uppidamangalam, Karuppur, Karur 639108                              |
| 7      | Shri. Anbazhagan M., No. 218, Arijana colony, Mettuthirukkam puliyur, Thirukkampuliyur, Karur 639102  |
| 8      | Shri. Senthilkumar A., 61/3 Mellappalyam, Nathamedu, Karur 639114                                     |
| 9      | Shri. Chinnadurai, V., No.8/3 Malaiyappuram, Kattalai, Renganathapuram North, Kattalai, Karur 639 108 |
| 10     | Shri. Kumar G., No.163 Kattalai South, Renganathapuram North, Kattalai, Karur 639108                  |

### Improved variety of elephant foot yam in Tenkasi, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                               |
|--------|----------------------------------------------------------------------------|
| 1      | Shri. Mathiyalagan, Ponnagar, Pattakurichi, Tenkasi 627 814                |
| 2      | Shri. Mariyappan, Middle Street, Pattakurichi, Tenkasi 627 814             |
| 3      | Shri. Krishnan Subbaiya, Middle Street, Pattakurichi, Tenkasi 627 814      |
| 4      | Shri. Murugan N., Middle Street, Pattakurichi, Tenkasi 627 814             |
| 5      | Shri. Krishnan A., Krishnankovil street, West Pattakuruchi, Tenkasi 627814 |

### Improved variety of Chinese potato in Tenkasi, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                                                                           |
|--------|------------------------------------------------------------------------------------------------------------------------|
| 1      | Shri. Senthil Vel Murugan K., South Street, Neelamehapuram, Sambankulam, Dharmapuramatam, Alwarkurichi, Tenkasi 627412 |
| 2      | Shri. Thangaraj B., Periya Street, Keelakuthapanjaan, Tenkasi 627851                                                   |
| 3      | Shri. Arunagiri P., Periya Street, Keelakuthapanjan, Tenkasi 627851                                                    |
| 4      | Shri. Arumugam S., Indrakalani, Alangulam, Keelakuthapanjan, Tenkasi 627851                                            |
| 5      | Shri. Kulanthaivel V., North Street, Manthiyoore, Ravanamudram, Tenkasi 627424                                         |
| 6      | Shri. Esandran S., Main Road, Rajankapuram, Govindapperi, Tenkasi 627424                                               |
| 7      | Shri. Rammohan A., Middle Street, Rajankapuram, Govindapperi, Tenkasi 627424                                           |
| 8      | Shri. Jegadeeswaran I., South street, Rajankapuram, Govindapperi, Tenkasi 627424                                       |
| 9      | Shri. Mukesh S., Middle Street, Rajankapuram, Govindapperi, Tenkasi 627424                                             |
| 10     | Shri. Velasamy Madasamy, Pillaiyar kovil street, Keelakuthapanjaan, Tenkasi 627 851                                    |
| 11     | Shri. Rasukutti M., Colony, Veppankulam, Pazhankottai, Tenkasi 628552                                                  |
| 12     | Shri. Karuppasamy S., Indira Colony, Alankulam, Tenkasi 627754                                                         |
| 13     | Shri. Vinod K., South street, Alankulam, K-Alankulam, Tenkasi 627754                                                   |
| 14     | Shri. Karuppalagu K., South street, Alankulam, Tenkasi 627754                                                          |
| 15     | Shri. Ajaikumar V., Mathiya Street, K-Alankulam, Tenkasi 627 754                                                       |

### Improved variety of Chinese potato in Tirunelveli, Tamil Nadu

| Sl.No. | Name & Address of the farmer                                                        |
|--------|-------------------------------------------------------------------------------------|
| 1      | Shri. S. Puthiyavan, Veyilan Street, Brahmadesam, Tirunelveli 627413                |
| 2      | Smt. R. Packiyalakshmi, Veyilan seri, Mannar Kovil, Brahmadesam, Tirunelveli 627413 |
| 3      | Shri. Arjunan K., Pattavarthi street, Kabaliparai, Tirunelveli 627602               |
| 4      | Shri. Mahendran, Main road, Pallakkal Pothukudi, Tirunelveli 627413                 |
| 5      | Smt. P. Kalaivani, Meikathan Street, Pallakkal Pothukudi, Tirunelveli 627413        |
| 6      | Smt. Petchiammal Kumar, Meikathan Street, Pallakkal Pothukudi, Tirunelveli 627413   |
| 7      | Shri. M. Selvaraj, Meikathan Street, Pallakkal Pothukudi, Tirunelveli 627413        |
| 8      | Shri. Mariyappan Poomani, Veyilan Street, Brahmadesam, Tirunelveli 627413           |
| 9      | Shri. Poodurai P., Veyilan Street, Brahmadesam, Tirunelveli 627413                  |
| 10     | Shri. Alagusakthi Kasi, Veyilanchery, Brahmadesam, Tirunelveli 627413               |

## Annexure II

## Media Coverage





## ம் அறிமுகம்

[illegible][illegible][illegible]

### వైద్య రూపదులు

వైద్యులు యితర వైద్యుల వద్దనుండి వైద్య విద్యను గ్రహించి వారి వాడనందుకు సామాన్య వ్యయం వసూలు చేయవలసి వున్నందున వైద్యులకు వైద్య రూపదులు వసూలు చేయవలసి వున్నది. వైద్యులకు వైద్య రూపదులు వసూలు చేయవలసి వున్నది. వైద్యులకు వైద్య రూపదులు వసూలు చేయవలసి వున్నది.

### సమూహ

సమూహం అంటే ఒకటి కంటే ఎక్కువ మంది వ్యక్తుల సమూహం. సమూహం అంటే ఒకటి కంటే ఎక్కువ మంది వ్యక్తుల సమూహం. సమూహం అంటే ఒకటి కంటే ఎక్కువ మంది వ్యక్తుల సమూహం.




[illegible]

1980s. The 1980s were a time of great change for the world, and the 1990s were a time of great change for the world. The 1990s were a time of great change for the world, and the 2000s were a time of great change for the world. The 2000s were a time of great change for the world, and the 2010s were a time of great change for the world. The 2010s were a time of great change for the world, and the 2020s were a time of great change for the world.

[illegible]

**திருச்சிணாவிலும், ௨.௪. ௨௨-**  
கொட்குத்தி கிராமத்தில், மரபுவழிக் கிறிஸ்து  
சாஸ்திரத்தில் மேம்படுத்தப்பட்ட தொழிலிருப்பவன்  
உணர்விறன் கூட்டம் சென்ற

கருச் மாவட்ட, வேளாண் அறிவியல் எம்மைஸ்  
முதன்மை விஞ்ஞானி திபாஸம் தலைமை  
வகித்தார். திருவார்த்தூர் மண்ணியல் துறை  
முதன்மை விஞ்ஞானி சிவசு, மாவட்டக்கிழவரின்  
மேம்படுத்தப்பட்ட தொழில்நுட்பங்கள் குறித்து  
பேசிமார்.

[illegible][illegible]

1. The first step is to identify the main topic of the document.
 2. The second step is to gather all relevant information.
 3. The third step is to analyze the information and identify key points.
 4. The fourth step is to synthesize the information into a coherent summary.
 5. The fifth step is to review the summary for accuracy and completeness.

Date : 04/03/2022 Edition/Issue : Essai Gratuit PageNo : 9

[illegible][illegible][illegible]

11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846.

... .. and also to  
... ..  
... ..

## Annexure III

### SCSP Quarterly Progress Report Format ICAR-HORTICULTURAL SCIENCE DIVISION

Name of the Ministry:

Name of the Scheme:

Total Scheme Allocation:

Physical Output Targets/Achievements (Quarter:)

| Sl.No. | Description                                                                                                         | Unit                                         | Quarterly Target | Quarterly Achievement | Annual Target |
|--------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------|-----------------------|---------------|
| 1      | Training for farmers in horticulture crop production                                                                | <b>No. of Training</b>                       |                  |                       |               |
|        |                                                                                                                     | No. of Farmers                               |                  |                       |               |
| 2      | Distribution of planting materials/seeds of horticultural crops                                                     | <b>No. of plants/cuttings</b>                |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
|        |                                                                                                                     | <b>Seed (kg)</b>                             |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
|        |                                                                                                                     | <b>Seed Tubers (kg)</b>                      |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
|        |                                                                                                                     | <b>Others-Related to technology transfer</b> |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
| 3      | Distributions of agricultural inputs like pesticides, fungicides, fertilizers, traps and small farm implements, etc | <b>Implements (Nos.)</b>                     |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
|        |                                                                                                                     | <b>Pesticide (Kg/Lit)</b>                    |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
|        |                                                                                                                     | <b>Fertilizers (q)</b>                       |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
|        |                                                                                                                     | <b>Micronutrients (q)</b>                    |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
|        |                                                                                                                     | <b>Others -</b>                              |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
| 4      | Demonstration of technologies in horticulture                                                                       | <b>Number</b>                                |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
| 5      | Promotion of kitchen garden                                                                                         | <b>Number</b>                                |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
| 6      | Development of demonstration block                                                                                  | <b>Number</b>                                |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |
| 7      | Nursery Development                                                                                                 | <b>Number</b>                                |                  |                       |               |
|        |                                                                                                                     | No. of beneficiaries                         |                  |                       |               |

**Training**  
**(A) Training**

| Training proposed | Title | Place | Date |
|-------------------|-------|-------|------|
| 1                 |       |       |      |
| 2                 |       |       |      |
| 3                 |       |       |      |
| n                 |       |       |      |

**(B) Impact of training:** Improvement in knowledge & attitude of stakeholders

**(C) Demonstration**

| Sl. No. | Title of demonstration planned | Place | Date |
|---------|--------------------------------|-------|------|
| 1       |                                |       |      |
| 2       |                                |       |      |
| 3       |                                |       |      |
| n       |                                |       |      |

**(D) Result of demonstration** (in comparison to check)

**Location & Beneficiary Details**

| State | District | Sub-District | Village | Individual Section Amount (Rs.) | Description of Activity | SC Population Benefitted/ No. of beneficiaries | Unique ID (Aadhar/ voter/Ration card. etc) | Specify the beneficiaries Training/ Demonstration /others |
|-------|----------|--------------|---------|---------------------------------|-------------------------|------------------------------------------------|--------------------------------------------|-----------------------------------------------------------|
|       |          |              |         |                                 |                         |                                                |                                            |                                                           |
|       |          |              |         |                                 |                         |                                                |                                            |                                                           |
|       |          |              |         |                                 |                         |                                                |                                            |                                                           |
|       |          |              |         |                                 |                         |                                                |                                            |                                                           |
|       |          |              |         |                                 |                         |                                                |                                            |                                                           |
|       |          |              |         |                                 |                         |                                                |                                            |                                                           |
|       |          |              |         |                                 |                         |                                                |                                            |                                                           |
|       |          |              |         |                                 |                         |                                                |                                            |                                                           |

## Annexure IV

### Project Team Empowerment of farmers through tuber crops based technological interventions (ICAR-CTCRI SCSP Programme)

#### 2020-2021

|                            |                   |
|----------------------------|-------------------|
| Nodal Officer              | : Sheela Immanuel |
| Principal Investigator     | : D. Jaganathan   |
| Co-Principal Investigators | : G. Byju         |
|                            | K. Susan John     |
|                            | K. Sunilkumar     |
|                            | V. Ramesh         |
|                            | R. Muthuraj       |
|                            | M. S. Sajeew      |
|                            | T. Krishnakumar   |
|                            | A.V.V. Koundinya  |
|                            | B.G. Sangeetha    |
|                            | E.R. Harish       |
| Technical Staff            | D.T. Rejin        |
| Skilled Support Staff      | P. Aswinraj       |

#### 2021-2022

|                            |                   |
|----------------------------|-------------------|
| Nodal Officer              | : Sheela Immanuel |
| Principal Investigator     | : D. Jaganathan   |
| Co-Principal Investigators | : G. Byju         |
|                            | K. Susan John     |
|                            | S. Sunitha        |
|                            | K. Sunilkumar     |
|                            | V. Ramesh         |
|                            | R. Muthuraj       |
|                            | M. S. Sajeew      |
|                            | T. Krishnakumar   |
|                            | K.M. Senthilkumar |
|                            | A.V.V. Koundinya  |
|                            | B.G. Sangeetha    |
|                            | E.R. Harish       |
|                            | P. Prakash        |
|                            | C. Pradeepika     |
| Technical Staff            | D.T. Rejin        |
| Skilled Support Staff      | P. Aswinraj       |

*Tuber crops for.....*

*Food, Health, Wealth and Prosperity*



## ICAR-Central Tuber Crops Research Institute

Sreekariyam, Thiruvananthapuram 695 017, Kerala, India

Phone: (91) (471) 2598551 to 2598554

E-mail: [director.ctcri@icar.org.in](mailto:director.ctcri@icar.org.in)

Website: <https://www.ctcri.org>

Social Media



Facebook



Twitter



Whatsapp



Instagram



You Tube

