

# ICAR KRISHI VIGYAN KENDRA

## Thiruvannamalai, Tamil Nadu.

### ANNUAL REPORT (1<sup>st</sup> January 2024 to 31<sup>st</sup> December 2024)

#### 1. GENERAL INFORMATION ABOUT THE KVK

##### 1.1. Name and address of KVK with phone, fax and e-mail

Name of the KVK as per official records (MoU) : **ICAR - Krishi Vigyan Kendra**  
 Address : Kilnelli village, Chithathur post, Vembakkam Taluk, Thiruvannamalai District, Tamil Nadu- 604 410  
 Phone : 04182, 290551, +916384093303  
 Fax : -  
 Email : kvkvmalai91@gmail.com

##### 1.2 . Name and address of host organization with phone, fax and e-mail

Name of the Host Organization as per Official Records : **Tamil Nadu Board of Rural Development**  
 Status of the Host Organization (As per the MoU) : NGO  
 Address : 359, Kilnelli Village, Chithathur post, Vembakkam Taluk, Thiruvannamalai District. Tamil Nadu-604410.  
 Phone : 04182- 291024.  
 Fax : -  
 Email : tnbrd1978@gmail.com  
 Name of the Chairperson : Mr.S.Ramesh  
 Mobile No : 9444021523  
 Email : [tnbrd1978@gmail.com](mailto:tnbrd1978@gmail.com)

##### 1.3. Name of the Programme Coordinator with phone & mobile No.

Name of the Programme Coordinator / SS&H : Mr.V.Suresh  
 Residential Address : ICAR KVK Staff Quarters Kilnelli village, Chithathur post, Vembakkam Taluk, Thiruvannamalai District-604410.  
 Phone No. : -  
 Mobile No. : 8220004286  
 Email : agrisuresh.v@gmail.com

1.4. Year of sanction of the KVK (as per Official Order) : 1991

1.5. Month and year of establishment : May 1991

1.6. Total land with KVK (in ha) (Consolidated figure) :

S. No.	Item	Area (ha)
1	Under Buildings	0.20
2.	Under Demonstration Units	0.50
3.	Under Crops	3.40
4.	Orchard/Agro-forestry	10.80
5.	Others (specify)	5.57
	<b>Total</b>	<b>20.47</b>

### 1.7. Infrastructural Development:

#### A) Buildings

S. No	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	1997	696	25,34,244.00	Not applicable		
2.	Farmers Hostel	ICAR	1998	305	14,96,643.00			
3.	<b>Staff Quarters</b>							
	1. SMS quarters	ICAR	1997	390	13,42,350.00			
	2. Assistant Quarters	ICAR	1998	300	9,00,000.00			
4.	<b>Demonstration Units</b>							
	1. Animal shed	ICAR	1996	145.0	173384.05			
	2. Poultry shed	ICAR		29.2	88793.75			
	3. Goat shed	ICAR		22.1	88793.75			
	4. Mushroom shed	ICAR		24.7	96797.35			
	5. Workshop	ICAR		65.79	181236.25			
5	Fencing	ICAR			6407.3 Meter		5,58,765.00	
6	Threshing floor	ICAR		270.8	2,92,757.00			
7	Vehicle shed	ICAR	1996	80.4	192764.00			

#### B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms./ hrs Run as on 31.12.2024	Present status
Jeep : TN-97 V 1702	2023	917029/-	43894	Good
MF Tractor & Trailer : TN-25 AX 1058	2012	5,70,000/-	3032.9	Good
Hero Honda : TN-09 AP 4662	2006	36,890/-	110323	Need to be replaced
Hero Honda passion plus : TN-25 S 0563	2009	49,476/-	118315	Need to be replaced
Suzuki Motorcycle-Access125Drum TN-97-U-1554	2023	69124/-	2244	Good

**C) Equipment & AV aids**

<b>Sl. No.</b>	<b>Name of the equipment</b>	<b>Year of purchase</b>	<b>Cost (Rs.)</b>	<b>Present status</b>
1	Steel Almirah 5.5 ft. Green colour	9/15/1993	2750	Good
2	Steel Almirah 6.5 ft. Green colour	9/15/1993	15200	Good
3	Wooden table with cup-board L shape	11/20/1993	5500	Good
4	Wooden table with cup-board L shape	11/20/1993	6200	Good
5	Wooden Teapoy 5x2 ft.	11/20/1993	1750	Good
6	Wooden cupboard	11/20/1993	3300	Good
7	Polymer chairs-CH 23 type	3/7/1995	285000	Need to be replaced
8	Steel cot super size 6 x 4 ft	9/25/2004	33880	Need to be replaced
9	Steel dining table 5 x 2 x 2.5 ply wood top	9/25/2004	16120	Need to be replaced
10	Iron rack	3/1/2005	3500	Good
11	Revolving stool	3/8/2005	565	Good
12	Hot air oven - Guna Make	3/10/2005	15033	Good
13	Hot plate - Sunbim Make	3/10/2005	24998	Good
14	Refrigerator – Whirlpool	3/10/2005	19998	Good
15	Grinder - NACLE- 65mm x 25mm motor - 1/4 HP Stainless Steel	3/23/2005	30009	Good
16	Electronic balance -AUY 220, Capacity:20 gms	3/26/2005	100242.5	Good
17	Servo Voltage Stabilizer with 5 KVA Electronic High/Low Voltage cut off	3/30/2005	9008	Good
18	Teak plywood table 6 x 2.5 x 2.5 ft-8 x 2.5 x 2.5 ft	1/3/2006	86280	Good
19	LCD-Panasonic Projector	3/22/2007	55000	Need to replace
20	Computer Tables	9/19/2008	0	Good
21	Printer Tables	9/19/2008	0	Good
22	Chairs	9/19/2008	0	Good
23	Garden tools	2/18/2010	386	Good
24	Garden hoe	2/18/2010	565	Good
25	Garden fork with steel handle	2/18/2010	291	Good
26	Leaf rabe with handle	2/18/2010	291	Good
27	Hand saw	2/18/2010	239	Good
28	Portable Generator --Birla Ecogen-EG 3000 AS Model	3/9/2010	77520	Need to be replaced
29	Inverter-Usha Zentra digital-1400 VA with Tubular battery SR-2Nos	3/9/2010	27500	Need to be replaced

30	Tope-Round Vessel-10 G-6.700 kg	6/8/2010	1045	Good
31	Tope-Round Vessel-10 G-17.060 kg (52-60")	6/8/2010	2750	Good
32	Kaivadi Big Vegetable stainer-1.400 kg	6/8/2010	532	Good
33	Vegetable Kothu-SS 2.800 kg	6/8/2010	700	Good
34	MS Jarnee-MS-2.060 kg	6/8/2010	134	Good
35	MS Stand-Fire wood Stove stand-16.080 kg	6/8/2010	1045	Good
36	Wet Grinder-Jumbo Junior 6" Plate grinding machine with stand, 1.5 HP single phase motor	7/5/2010	12540	Good
37	VST-Sakthi Power tiller-130DI with CT85 fitted diesel engine	8/13/2010	148190	Need to be replaced
38	Prestige mixture Grinder 3 Jar	2/17/2011	3465	Good
39	Idly Paanai – Small	2/26/2011	495	Good
40	Tabara with lid	2/26/2011	555	Good
41	Iron Kadai	2/26/2011	400	Good
42	Hot pack	2/26/2011	1300	Good
43	Public Address system - Ahuja PS x 1200 Amplifier Speaker	3/11/2011	10860	Good Good
44	Public Address system - Ahuja AW 490 VHL Cordless dual mike	3/11/2011	2513	Need to be replaced
45	Ahuja SRX 50 x T Speaker box	3/11/2011	5587	Good
46	Deep Freezer-110 lit capacity (-200C)-ELANPRO	3/31/2012	31500	Good
47	Refrigerated Centrifuge (Centrifuge tube two types 1.Rotor 2. Expend of) 20000 RPM speed-RCF37570 - 8 to 400C-Remi with Rotor	3/31/2012	198500	Good Good
48	Vacuum desiccators-Made 3.3 low expansion Borosilicate Glass	3/31/2012	5000	
49	Hot air oven-Double walled chamber	3/31/2012	30000	Good Good
50	Laminar Air flow chamber- Clean air model	3/31/2012	57250	Good
51	BOD Incubator - Horizontal - Capacity : 6 Cubic feet.-Lark	3/31/2012	74425	Good
52	Vortex mixer - 200-2800 RPM variable speed	3/31/2012	3738	Good
53	Thermo hygrometer - Range 0-100 %	3/31/2012	1312	Good
54	Digital moisture meter-VFD Display	3/31/2012	86000	Good
55	Microscope with stand - Lens dia 145 mm,	3/31/2012	5250	Good Good
56	UV rays chamber - UV lamp long wave length 365nm	3/31/2012	6875	Good
57	Magnetic stirrer-Fitted with Pilot lamps, Variable speed stirring.	3/31/2012	4095	Good
58	Brix meter-0-45 %	3/31/2012	3500	Good
59	Brix meter-45 to 85 %	3/31/2012	3500	Good

60	Phase contrast microscope-Antifungal and anti reflection	3/31/2012	57000	Good
61	Dissection microscope-ISI standard with movable condenser	3/31/2012	1575	Good
62	Water bath - Tank-Double walled chamber with thermo stat	3/31/2012	4725	Good
23	Stereo zoom microscope - Digital imaging systems	3/31/2012	103050	Good
64	10 KVA Wide range single phase electronic servo voltage stabilizer	3/31/2012	21755	Good
65	Whirlpool Air Conditioner split 1.5 ton 5 Star with stabilizer	3/31/2012	33000	Need to be replaced
66	IFB Microwave oven-20 lits. Capacity	3/31/2012	4500	Good
67	Mridaparikshak-Mini Soil Testing kit	3/31/2017	180600	Good
68	Ahuja Portable Speaker with Mic	2019	9000	Good
69	HP Laptop with wireless	2020	60699	Need to be replace
70	Autoclave – 2 Nos	2020	35990	Good
71	Incubator with stabilizer (220 egg capacity)	2021	26941	Good
72	DELL-Desktop System with monitor	2021	85500	Good
73	HP Neverstop Laser MFP printer	2021	19899	Good
74	Shaktiman Rotavator-36 plate	2021	105000	Good
75	Augur	2022	8000	Good
76	Automatic cold press oil extractor-20kg capacity with 3 HP 3 Phase	2023	194700.00	Good
77	Poultry vaccinator	2023	4999.00	Good
78	Poultry debeaking machine	2023	1460.00	Good
79	Groundnut decorticator cum grader machine 400 kg capacity-2HP 3phase	2023	102660.00	Good
80	Rotary power weeder-Varsha 5HP Hector TCS	2023	81000.00	Good

**1.7. A). Details SAC meeting\* conducted in the year**

S.No.	Date	No of Participants	Salient Recommendations
1.	03.02.2024	32	-
2.	12.03.2025	25	Details given hereunder:

**Copy of SAC proceedings and list of members participants : Annexure-I**

## 2. DETAILS OF DISTRICT (2024)

### 2.0. Operational jurisdiction of KVKs

District	New districts governed by the KVK after division of the district, if applicable	Taluks/Tehsils and/or Mandals under the KVKs jurisdiction
Thiruvannamalai	-	Details given here under:

1. Geographical Position :
  - North Latitude Between* : *11° 55' and 13° 15' N*
  - East Longitude Between* : *78°20' and 79°50' E*
2. Total Geographical area : 6188 Sq. Km
3. District Headquarters name : Thiruvannamalai
4. No. Taluk details : 12
5. No. of Block : 18
6. No. of Village panchayats : 860
7. No. of Revenue villages : 1067

#### 8. Taluk and block wise village details of the district:

S. No	Name of the taluk	Taluk HQ	Name of Blocks covered	No. of Village Panchayat	No. of Revenue villages
1	Thiruvannamalai	Thiruvannamalai	Thiruvannamalai	69	78
			Thurinjapuram	47	57
2	Kilpennathur	Keelpennathur	Keelpennathur	45	77
3	Thandarampattu	Thandarampattu	Thandarampattu	47	63
4	Chengam	Chengam	Chengam	44	64
			Pudupalayam	37	43
5	Kalaspakkam	Kalaspakkam	Kalaspakkam	45	52
6	Polur	Polur	Polur	40	73
7	Jamunamarathur	Jamunamarathur	Jamunamarathur	11	34
8	Chetpet	Chetpet	Chetpet	49	76
9	Arni	Arani	Arani	38	26
			West Arani	37	23
10	Vandavasi	Vandavasi	Vandavasi	61	61
			Thellar	61	61
			Peranamallur	57	57
11	Cheyyar	Cheyyar	Cheyyar	53	70
			Anakavur	55	61
12	Vembakkam	Vembakkam	Vembakkam	64	91
<b>Total</b>				<b>860</b>	<b>1067</b>

## 2.1. Major farming systems/enterprises

S. No	Farming system/enterprise
1	Irrigated : Paddy – Paddy-Paddy
2	Irrigated : Paddy-Groundnut - Vegetables
3	Rainfed : Groundnut-Pulses
4	Irrigated : Vegetable-Vegetables

## 2.2. Description of Agro-climatic Zone & major agro ecological situations

S. No	Agro-climatic Zone	Characteristics
1	North Eastern Zone, Vellore	The Mean average temperature is 28.62°C. Hot during summer(35 - 37°C). Cool during winter periods (24 - 26°C). The temperature regime is hyper thermic.
2	<b>Agro ecological situation:</b> Eastern ghats - (TN uplands) and Deccan plateau	Hot semi-arid eco region with red loamy soils.

## 2.3. Soil types in the jurisdiction

Sl.No.	Soil type	Characteristics	Area(ha)
1	Red Loam	The texture varies from sand to clay and the majority being loam. Porous and friable structure, absence of lime free from carbonates.	78256
2	Red sandy loam	Contain enough clay materials, dominated by sand particles, having visible particles and having very gritty structure.	63160
3	Black Loamy	Consist of mixture of sand clay and decaying organic matter having high nutritive value.	18793

## 2.4. Area, Production and Productivity of major crops cultivated in the district for 2024. (Season: Kharif, Rabi and Summer)

S. No	Crop	Area (ha)	Production ('000'tonnes)	Productivity (kg/ha)
1	Paddy	184925	699.94	3785
2	Cumbu	1786	3.58	2006
3	Cholam	26	0.02	773
4	Ragi	2203	6.97	3165
5	Samai	5477	7.34	1341
6	Maize	3609	24	6652

7	Blackgram	28919	25.70	889
8	Greengram	1217	0.636	523
9	Redgram	832	0.809	973
10	Groundnut	61730	140.43	2275
11	Gingelly	1308	0.939	718
12	Coconut	1228	17.57	14311 (Nuts/ha)
13	Sugarcane	16045	1.556	97 (ton/ha)
14	Turmeric	222	1.223	5511
15	Tapioca	1530	64570.6	42203
16	Cotton	750	0.230 lint	307 (lint)
17	Tomato	717	9354.7	13047
18	Brinjal	991	10236.0	10329
19	Bhendi	653	4290.2	6570
20	Chillies	1646	2.964	1801
21	Banana	2730	66.54	24375
22	Mango	405	2217.0	5474
23	Onion	67	0.557	8322
24	Mulberry	1516	420309 (Cocoons in Kg)	277.24
25	Others	24214	-	-
<b>Total Cropped area (ha)</b>		<b>344746</b>	-	-

## 2.5. Weather data (2024)

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
January	26.4	27.80	21.60	74.10
February	10.1	29.20	21.00	55.20
March	14.1	33.10	22.80	48.00
April	23.2	35.60	25.80	52.60
May	75.4	36.20	28.30	49.60
June	59.8	33.60	27.60	49.90
July	94.8	32.90	25.90	62.50
August	154.7	33.10	26.50	61.70
September	159.1	32.80	25.10	68.10
October	270.9	31.60	24.70	61.90
November	164.7	29.30	23.50	75.30
December	21.5	28.30	21.90	76.10
<b>Average/Total</b>	<b>1074.70</b>	<b>383.50</b>	<b>24.56</b>	<b>61.25</b>

## 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2022)

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	694856	505260	6.86
<i>Indigenous</i>			
<b>Buffalo</b>	74741	104355	4.30
<b>Sheep</b>			
<i>Crossbred</i>	177712	424140	-
<i>Indigenous</i>			
<b>Goats</b>	248410	341440	-
<b>Pigs</b>			
<i>Crossbred</i>	5361	17200	-
<i>Indigenous</i>			
<b>Rabbits</b>	89	-	-
<b>Poultry</b>			
Hens, <i>Desi Improved</i> , Ducks Turkey and others	242311	8834000	-
Domestic dogs	4545	-	-

### 2.7. Details of Adopted Villages (2024)

Sl. No.	Taluk/ Mandal	Name of the block	Name of cluster villages	Year of Adoption	Major crops & Enterprises	Major problems identified in each crop/enterprise	Identified Thrust Areas
<b>Details of Adopted Village</b>							
1	Arni, Vandavasi, Polur, Vembakkam, Cheyyar	Arni, Vandavasi, Polur, Vembakkam, Cheyyar	Sathupperipalayam Vazhur, Padavedu, Kilnelli, Palli	2016-17	Paddy	Cultivation of old varieties, High infestation of pest & diseases BPH, Stem borer, Tungro, BLB and Blast, High incidence of pest and disease, Yield reduction. No value addition.	Training, Extension activities
				2016-17	Millet	Cultivation of old varieties, Lack of awareness on high yielding & drought tolerant variety, High incidence of Blast disease, Low yield, Lack of knowledge on value addition. Low market price.	Training, Awareness programme, Extension activities
				2017-18	Groundnut	Lack of awareness on the new varieties, less drought tolerant, Cultivation of VRI 2, Incidence of Root rot, leaf spot, rust and Spodoptera, poor yield. Lack of knowledge on value addition.	CFLD oilseeds, FLD, Training, Special programme, Extension activities
				2017-18	Blackgram	Prolonged cultivation of age old varieties, Non synchronized maturity, Incidence of YMV, Aphids, and Powdery mildew. More labour required for grading and, winnowing of pulses.	Training and Extension activities

Sl. No.	Taluk/ Mandal	Name of the block	Name of cluster villages	Year of Adoption	Major crops & Enterprises	Major problems identified in each crop/enterprise	Identified Thrust Areas
				2016-17	Banana	Low bunch grade and weight, Fusarium wilt, Nematode incidence and Sigatoka leaf spot, Imbalanced nutrition, Lack of knowledge on improved planting methods, Lack of knowledge on value addition.	OFT, Training, Extension activities
				2016-17	Tomato	Low yield, Flower drop, Lack of application of growth regulators, Cultivation of local variety, Lack of adoption of improved hybrids and technologies, Leaf curl in tomato, Imbalanced nutrition, Poor quality seedlings and field establishment. No value addition.	OFT, FLD, Training and Extension activities
				2018-19	Cow	Low milk production, High disease incidence. Infertility due to repeat breeding, Lack of awareness on clean milk production.	Training, Extension activities
				2018-19	Poultry	Less number of egg production, Low hatchability, Chick mortality, Less feed efficiency.	

Sl. No.	Taluk/ Mandal	Name of the block	Name of cluster villages	Year of Adoption	Major crops & Enterprises	Major problems identified in each crop/enterprise	Identified Thrust Areas
<b>Details of DFI Village</b>							
1	Vandavasi	Vandavasi	Kilsembedu	2016-17	Paddy	Cultivation of old varieties, Lack of adoption of improved varieties, low yield, lack of awareness on IPDM, Severe infestation of Brown plant hopper, Blast, BLB, stem borer, leaf folder Gall midge, Tungro, False smut, wild boar & extensive use of chemical pesticides.	Training and Extension activities
					Blackgram	Low market price for small size and non-shiny seeds, Non synchronized maturity, Incidence of YMV, Aphids, and Powdery mildew. More labour required for grading.	Training and Extension activities
					Sugarcane	Lack of knowledge about micronutrients leads to reduced internodes and cane growth.	FLD, Training and Extension activities
					Gourds	Low fruit set, Maleness, Lack of adoption of location specific hybrids, Imbalanced nutrition, Lack of adoption of improved technologies, High incidence of mosaic, fruit fly, Sucking pests, Downy mildew and powdery mildew.	OFT, FLD, Trainings and Extension activities
					Cattle	Low milk production, High disease incidence. Infertility due to repeat	Training and Extension

Sl. No.	Taluk/ Mandal	Name of the block	Name of cluster villages	Year of Adoption	Major crops & Enterprises	Major problems identified in each crop/enterprise	Identified Thrust Areas
						breeding, Lack of awareness on clean milk production, Wounds by flies and Maggots occurs.	activities
					Herbal garden	Lack of awareness on medicinal plants cultivation and its usage for common ailment.	FLD, Training and Extension activities
					Fodder	Feeding of low protein fodder for dairy animals, Lack of awareness about cultivation of fodder crops.	Training and Extension activities
2	Arni	West Arni	Athapur	2016-17	Paddy	Cultivation of old varieties, Yield reduction. Lack of adoption of improved varieties, low yield, lack of awareness on IPDM, Severe infestation of BPH, Blast, BLB, stem borer, leaf folder Gall midge, Tungro, False smut, wild boar & extensive use of chemical pesticides.	OFT, Trainings, Extension activities
					Maize	Poor yield and lack of awareness on high yielding varieties, High incidence of pest and disease	OFT, Training and Extension activities
					Groundnut	Lack of awareness on the new varieties, less drought tolerant, Cultivation of VRI 2, Incidence of Root rot, leaf spot, leaf minor and Spodoptera, poor yield. Lack of knowledge on value addition.	Trainings, Extension activities

Sl. No.	Taluk/ Mandal	Name of the block	Name of cluster villages	Year of Adoption	Major crops & Enterprises	Major problems identified in each crop/enterprise	Identified Thrust Areas
					Turmeric	Shortage of quality seed rhizomes, Imbalanced nutrition and incidence of leaf spot, rhizome rot, sucking pest and lack of knowledge on IDM practices.	Trainings, Extension activities
					Bhendi	Low yield, Imbalanced nutrition, Non adoption of improved technologies, Yellow vein Mosaic Virus. Lengthy time consuming process, crucial process during harvest (Thorny stems leads cuts injuries and rashes).	Training, Extension activities
					Fodder	Feeding of low protein fodder for dairy animals Lack of awareness about cultivation of fodder crops.	Trainings, Extension activities
					Poultry	Less number of egg production, Low hatchability, Chick mortality, Less feed efficiency, Low body weight gain.	Trainings, Extension activities
					Mushroom	Lack of awareness on ready to use mushroom product, Low market price during on-season	Trainings, Extension activities

## 2.8. Priority/thrust areas

Crop/Enterprise	Thrust area
Paddy, Groundnut, Blackgram, Millets, Brinjal, Chillies, Bhendi, Cucurbits, Turmeric, Tuberose	Integrated Crop Management
Redgram, Groundnut, Tomato, Ridgegorud	Varietal assessment
Paddy, Groundnut, Banyard millet, Finger millet, Brinjal, Watermelon	Demonstration of high yielding hybrids/varieties
Paddy, Groundnut, Blackgram, Millets, Chillies, Banana	Integrated Nutrient and weed Management
Paddy, Groundnut, Maize, Pulses, Sugarcane, Snakegourd, Banana, Brinjal, Chilli, Tapioca, Coconut, Tuberose, Millet, Watermelon	Integrated Pest and Disease Management
Paddy, Groundnut and Blackgram	Quality seed production
Paddy	Conservation of traditional varieties
Country chicks, Orchard development, Apiculture, Vermiculture	Livelihood improvement for underprivileged thorough secondary agriculture
Agri Drone, Custom hiring centres	Rural employment generation
Paddy, Groundnut, Pulses, Vegetables, Millets, Banana	Farm Mechanization
Banana, Vegetables	Precision farming
Brinjal, Chilli, Tomato	Scientific nursery management
Paddy, Groundnut, Pulses and Millets	Organic farming/Natural farming
Paddy, Pulses, Fruits, Millets and Vegetables	Post harvest management
Livestock and Poultry	Integrated Farming System, Poultry farming, Dairy farming and Goat rearing
Disease management for livestock	Cattle, Sheep, Goat and Poultry
Field crops, Fruits, Vegetables, Milk	Value addition, Drudgery reduction

### 3. Salient Achievements

#### Achievements of Mandated activities (1<sup>st</sup> January 2024 to 31<sup>st</sup> December 2024)

S.No	Activity	Target	Achievement
1.	Technologies Assessed and refined (No.)	28	28
2.	On-farm trials conducted (No.)	14	14
3.	Frontline demonstrations conducted (No.)	20	20
4.	Farmers trained (in Lakh)	0.015	0.0149
5.	Extension Personnel trained (No.)	38	38
6.	Participants in extension activities (in Lakh)	0.07225	1.67828
7.	Production and distribution of Seed (in Quintal)	90.5	491.32
8.	Planting material produced and distributed (in Lakh)	0.02500	2864
9.	Live-stock strains and finger lings produced and distributed (in Lakh)	0.02025	0.01333
10.	Soil samples tested by Mini Soil Testing Kit (No)	100	122
11.	Soil samples tested by Traditional Laboratory (No)	700	242
12.	Water, plant, manure and other samples tested (No.)	100	144
13.	Mobile agro-advisory provided to farmers (No.)	72000	333777
14.	No.of Soil Health Cards issued by Mini Soil Testing Kits (No.)	100	122
15.	No. of Soil Health Cards issued by Traditional Laboratory (No.)	700	242

#### Salient Achievements by KVK during the year in bullet points:

- Quality seeds of improved high yielding new varieties viz., Groundnut (TMV 14) 424.5 Qtl Blackgram (VBN 8) 17.89 Qtl and fodder seeds like, hedge leucerne, subabul, COFS 29 & 31 (7.53 Qtl) were supplied to the farmers.
- A total of 300 pandhal vegetable cultivation units were established in the Kilpennathur block to enhance farmer yield and income.
- A total of twenty animal camps were successfully organized, providing essential treatment to 2947 animals in the Thurinjapuram and Kilpennathur blocks
- KVK created 35 SHG women entrepreneurs out of 60 trained under the Livelihood Entrepreneurship Development Programme in Thellar block.
- With a view to increase the productivity solanaceous vegetables by 20-30 %, foliar nutrition of IIHR vegetable has been promoted by KVK. Total quantity of 300 kg of IIHR vegetable special (Micronutrient formulation) has been produced and supplied to the farmers. At present the technology has spread over an area of 1580 ha in the district. Similarly KVK has supplied 6200 kgs of micronutrient mixture in groundnut and mango to increase the productivity in these two crops.
- From the 28 Integrated Farming System models established by the KVK, 11 IFS models have risen to success, becoming shining examples in the district with the unwavering support of KVK.

#### 4. TECHNICAL ACHIEVEMENTS

##### Details of target and achievements of mandatory activities by KVK during 2024

##### OFT (Technology Assessment)

No. of OFTs		Number of technologies		Number of locations (Villages)		Total no. of Trials / Replications / beneficiaries	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
14	14	28	28	14	14	70	70

##### FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers / Beneficiaries / Replications	
Targets	Achievement	Targets	Achievement	Targets	Achievement
20	20	38.40	38.40	190	190

##### Training including sponsored, vocational and other trainings

Number of Courses			Number of Participants	
Clientele	Targets	Achievement	Targets	Achievement
Farmers and Farm Women	76	76	1170	1170
Rural youth	7	7	94	94
Extn. Functionaries	3	3	38	38
Vocational	3	3	40	40
Sponsored training	10	10	186	186

##### Extension Activities

Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement
274	274	7225	167828

##### Seed Production (q)

Target	Achievement	Distributed to no. of farmers
90.5	491.32	2741

##### Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
2500	2864	469

##### Bio Products (Kgs.)

Target	Achievement	Distributed to no. of farmers
11700	12164.25	5910

#### 4.1. Technology Assessments (OFTs) in Detail

##### 4.1.1. Assessment of Groundnut varieties for higher yield

1. **Thematic area** : Varietal evaluation
2. **Title** : Assessment of Groundnut varieties for higher yield
3. **Scientists involved** : Subject Matter Specialist (Agronomy)

#### 4. Details of farming situation:

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy loam	L	M	M	10.5	3

#### 5. Problem definition / description:

- Lack of knowledge and availability of improved varieties
- Poor yield and lack of awareness about new varieties

#### 6. Technology Assessed:

**TO1** : Cultivation of TCGS 1694. It matures in 105 to 110 days. The yield per hectare in Kharif is 22-25 quintal and Rabi it is 25to 30 quintals per hectare . Tolerant to early leaf spot, late leaf spot and rust, Uniform maturity..

**TO2** : Cultivation of VRI 9. It has duration of 115 days. The average yield of culture is 2500 kg/ha. It has moderate resistance to late leaf spot and rust besides thrips and leaf hopper.

**FP** : Cultivation of Local Groundnut variety

#### 7. Critical inputs given

Name of the input	Quantity	Value in Rupees
Groundnut TCGS 1694 seed	50 kg	5000.00
Groundnut VRI 9 seed	50 kg	4750.00
TNAU Groundnut rich	10 kg	2250.00
Field board	5 nos	1504.50
<b>Total Rs.</b>		<b>13504.50</b>

## 8. Results:

**Table :** Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
Farmers Practice	5	13.74	33568	1.53
<b>TO1:</b> Technology 1(Groundnut variety TCGS 1694)		22.56	98170	2.65
<b>TO2:</b> Technology 2(Groundnut variety VRI 9)		20.6	82534	2.34

**Table 2 :** Data on other Performance indicators\*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Number of pods/sqm	20.7	31.22	30.38
Gross Cost (Rs./ha)	62612	59750	61666
Gross Income (Rs./ha)	96180	157920	144200

**Description of the results:** The Groundnut varietal assessment trials were conducted in five locations covering five farmers, during *Rabi* season (2023-24). During the varietal assessment yield parameters were observed and recorded. The number of pods was higher in TCGS 1694 Groundnut variety (31 nos) compared to the local check (21 nos) .

The mean average yield (22.56 Qtl/ha) was recorded in TCGS 1694 Groundnut variety, which is 39% higher when compared local variety (13.74 Qtl/ha). Farmers have obtained the highest Net income of Rs. 98170/ha in Groundnut variety TCGS 1694 followed by VRI 9 (Rs.82534/ha) and lowest net income was recorded in farmers practice (Rs.33568/ha). The cost benefit of 2.65 was recorded in Groundnut variety TCGS 1694 against the farmer's practice (1.53).

### 4.1.2. Assessment of Redgram varieties for higher yield

- Thematic area** : Varietal evaluation
- Title** : Assessment of Redgram varieties for higher yield
- Scientists involved** : Subject Matter Specialist (Agronomy)

#### 4. Details of farming situation:

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	<i>Kharif</i>	Sandy loam	L	M	M	848.4	26

### 5. Problem definition / description:

- Lack of knowledge and availability of improved varieties
- Poor yield and lack of awareness about new varieties
- High incidence of pest and diseases

### 6. Technology Assessed:

**TO1 :** Cultivation of Redgram variety LRG 105. It matures about 160-170 days. The average yield is about 23 q/ha. It is tolerant to Fusarium wilt and SMD

**TO2 :** Cultivation of Redgram variety CO 8. It matures about 150-165 days. The average yield is about 17 q/ha. It is moderately resistant to Fusarium wilt and *Helicoverpa armigera*.

**FP :** Cultivation of Local Redgram variety

### 7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Redgram seed variety LRG 105	15 kg	1800.00
Redgram seed variety CO 8	15 kg	3135.00
<i>Trichoderma asperellum</i>	10 kg	1750.00
<i>Bacillus subtilis</i>	10 kg	1750.00
Field board	5 nos	1504.50
<b>Total Rs.</b>		<b>9939.50</b>

### 8. Results:

**Table :** Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
Farmers Practice	5	12.04	46960	1.85
<b>TO1:</b> Technology 1(Redgram variety LRG 105)		13.4	62550	2.08
<b>TO2:</b> Technology 2(Redgram variety CO 8)		14.78	80360	2.53

**Table 2 :** Data on other Performance indicators\*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Number of pods/sqm	125.18	165.88	177.24
Gross Cost (Rs./ha)	55380	58050	52660
Gross Income (Rs./ha)	102340	120600	133020

**Description of the results:** The Redgram varietal assessment trials were conducted in five locations covering five farmers, during *Rabi* season. During the varietal assessment various parameters were observed and recorded. The number of pods per plant recorded low in farmers practice (125 nos.) but in variety CO 8 Redgram it is recorded as 177 nos.

The mean average yield of 14.78 Qtl/ha was recorded in CO 8 Redgram variety followed by LRG 105 variety (13.4 Qtl/ha) which is 19% higher than Local variety (12.04 Qtl/ha). Farmers have obtained the highest net income of Rs.80360/ha in Redgram variety CO 8 followed by LRG 105 (Rs.62550/ha) and lowest net income was recorded in farmers practice (Rs.46960/ha). The highest benefit cost ratio of 2.53 was recorded in Redgram variety CO 8 and lowest was recorded in farmers practice (1.85).

#### 4.1.3. Assessment of effectiveness of root nodulation bacteria in Blackgram

1. **Thematic area** : Nutrient Management
2. **Title** : Assessment of effectiveness of root nodulation bacteria in Blackgram
3. **Scientists involved** : Subject Matter Specialist (Agronomy)
4. **Details of farming situation:**

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy loam	L	M	M	52.5	5

#### 5. Problem definition / description:

- Lack of knowledge about new technology
- Poor yield

#### 6. Technology Assessed:

**TO1** : Seed treatment Nodule associated plant probiotic for blackgram (Enhancing growth and yield, it can survive under drought and produce several growth hormones and enhance 14% higher yield)

**TO2** : Seed treatment with liquid Rhizobium 50ml/acre.

**FP** : No seed treatment

#### 7. Critical inputs given

Name of the input	Quantity	Value in Rupees
Blackgram seeds	40 kg	4600
Rhizobium	2.5 litres	750
TNAU Probiotics	2 litres	
Field board	5 nos	1504.5
<b>Total Rs.</b>		<b>6854.5</b>

## 8. Results:

**Table :** Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
No seed treatment	5	688.6	33791	1.38
<b>TO1:</b> Technology 1(Seed treatment with probiotics)		790.2	46114	1.86
<b>TO2:</b> Technology 2(Seed treatment with rhizobium)		743.4	41276	1.64

**Table 2 :** Data on other Performance indicators\*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Plant population (nos)	23	30.2	27.2
Number of pods/sqm	20.2	28.8	23.4
Gross Cost (Rs./ha)	24740	25004	25630
Gross Income (Rs./ha)	58531	71118	66906

**Description of the results:** The Blackgram seed treatment assessment trials were conducted in five locations covering five farmers, during *Rabi* season (2023-24). During the varietal assessment growth and yield parameters were observed and recorded. The plant population was recorded very low in farmers practice (23 nos) and it was higher in TNAU Probiotics treated Blackgram seeds (30 nos) followed by Rhizobium treated seeds (27 nos). The number of pods per plant was higher in Probiotics treated seeds (29 nos) compared to the local check (20 nos) .

The mean average yield (7.9 Qtl/ha) was recorded in TNAU Probiotics treated seeds and in Rhizobium treated seeds it was 7.43 Qtl/ha. Farmers have obtained the highest net income of Rs. 46114/ha in TNAU Probiotics treated seeds followed by Rhizobium treated seeds (Rs.41276/ha) and lowest net income was recorded in non treated seeds (Rs.33791/ha). The cost benefit of 1.86 was recorded in TNAU Probiotics treated seeds against the non treated seeds (1.38).

### 4.1.4 Assessment of improved hybrids for higher productivity in tomato

1. **Thematic area** : Varietal evaluation
2. **Title** : Assessment of improved hybrids for higher Productivity in tomato
3. **Scientists involved** : Subject Matter Specialist (Horticulture).

#### 4. Details of farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy loam	L	H	M	214.2	6

#### 5. Problem definition / description:

- High seed cost in private hybrids, lack of awareness on improved hybrids, the yield levels are low.
- Susceptibility to pest and diseases.

#### 6. Technology Assessed:

**TO1** : Cultivation of Arka vikas

**TO2** : Cultivation of COTH 4

**FP** : Cultivation of local hybrids

#### 7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Arka vikas	150 gm	600.00
COTH 4	150 gm	750.00
Vegetable Special	20 kg	4000.00
Field board	5 Nos	1504.50
<b>Total Rs.</b>		<b>6854.50</b>

#### 8. Results :

**Table 1 : Performance of the technology**

Technology Option	No. of trials	Yield (q/ha)	Net returns (Rs./ha)	BCR	Data on Other performance indicators*
<b>FP:</b> Local hybrids	5	649.68	118808	2.23	<ul style="list-style-type: none"> <li>▪ Days to 50% flowering</li> <li>▪ Average fruit weight(g)</li> </ul>
<b>TO1:</b> Arka vikas		710.51	135674	2.46	
<b>TO2:</b> COTH 4		816.30	164123	2.81	

**Table 2 : Data on other performance indicators\***

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Days to 50% flowering	55.67	53.17	51.8
Average fruit weight(g)	63.6	67.7	72.5

**Description of the results:** The COTH 4 (TO2) has recorded 25.65% higher yield as compared to local hybrids with the BCR of 2.81. An additional net return of Rs.45315 per hectare was recorded in COTH 4 tomato hybrid.

**9. Constraints:** Non availability of improved hybrids was the problem to take up the planting in the right season.

**10. Feedback of the farmers involved:** COTH 4 tomato hybrid (816.30 Q/ha) yields higher than Arka Vikas (710.51 Q/ha) and also fetches good market price as well as high fruit quality.

**11. Feed back to the scientist who developed the technology:** Improved hybrids with resistance to tomato leaf curl virus, fruit borer and nematode may be developed.

#### 4.1.5. Assessment of suitable Ridge gourd varieties for higher productivity

1. **Thematic area** : Varietal evaluation
2. **Title** : Assessment of suitable Ridge gourd varieties for higher Productivity
3. **Scientists involved** : Subject Matter Specialist (Horticulture).
4. **Details of farming situation :**

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Sandy loam	L	H	M	525.6	7

**5. Problem definition / description:**

- Low yield in existing variety, Lack of awareness on improved varieties, Low productivity.

**6. Technology Assessed:**

**TO1** : Cultivation of MDU 1 Ridge gourd

**TO2** : Cultivation of Arka prasan

**FP** : Cultivation of local varieties

**7. Critical inputs given:**

Name of the input	Quantity	Value in Rupees
MDU 1 Ridge gourd	2 kg	2400.00
Arka Prasan	2 kg	4000.00
Vegetable Special	20 kg	4000.00
<i>Bacillus subtilis</i>	10 kg	1750.00
Field board	5 Nos	1504.50
<b>Total Rs.</b>		<b>13654.50</b>

## 8. Results :

**Table 1 : Performance of the technology**

Technology Option	No. of trials	Yield (q/ha)	Net returns (Rs./ha)	BCR	Data on Other performance indicators*
FP: Local Varieties	5	157.80	188712	1.90	<ul style="list-style-type: none"> <li>▪ Days to 50% flowering</li> <li>▪ Average fruit weight(g)</li> <li>▪ Average fruit length(cm)</li> </ul>
TO1: MDU 1 Ridge gourd		188.30	260634	2.39	
TO2: Arka prasan		172.10	222014	2.11	

**Table 2 : Data on other performance indicators\***

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Days to 50% flowering	42.5	36.5	39.4
Average fruit weight(g)	275.10	317.30	304.6
Average fruit length(cm)	26.8	30.2	33.7

**Description of the results:** The MDU 1 Ridge gourd (TO1) has recorded 19.33% higher yield as compared to local varieties with the BCR of 2.39. An additional net return of Rs.71922 per hectare was recorded in MDU 1 ridge gourd.

**9. Constraints:** Non availability of improved varieties was the problem to take up the planting in the right season.

**10. Feedback of the farmers involved:** MDU 1 ridge gourd (188.30 Q/ha) yields higher than Arka prasan (172.10 Q/ha) and also fetches good market price as well as high fruit quality.

**11. Feed back to the scientist who developed the technology:** Improved varieties with resistance to fruit fly attack and early flowering may be developed.

### 4.1.6. Assessment of microbial inoculants for yield enhancement in Chilli

1. **Thematic area** : Crop Production and Management
2. **Title** : Assessment of microbial inoculants for yield enhancement in chilli
3. **Scientists involved** : Subject Matter Specialist (Horticulture).
4. **Details of farming situation :**

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy loam	L	M	H	424.28	9

**5. Problem definition / description:**

- Lack of knowledge on seed treatment and High incidence of sucking pest.
- Poor yield due to imbalanced nutrition.

**6. Technology Assessed:**

**TO1** : Application of CSR – Grow Sure.

**TO2** : Application of Arka Microbial Consortium.

**FP** : Application of NPK.

**7. Critical inputs given:**

Name of the input	Quantity	Value in Rupees
CSR grow sure	15 lit	2550.00
AMC powder	15 kg	2205.00
Field board	5 Nos	1504.50
<b>Total Rs.</b>		<b>6259.50</b>

**8. Results :**

**Table 1 : Performance of the technology**

Technology Option	No.of trials	Yield (q/ha)	Net returns (Rs./ha)	BCR	Data on Other performance indicators*
<b>FP:</b> Application of NPK	5	200.80	156200	1.76	<ul style="list-style-type: none"> <li>▪ Days to 50%flowering</li> <li>▪ Average fruit weight(g)</li> </ul>
<b>TO1:</b> Application of CSR grow sure		243.05	241578	2.35	
<b>TO2:</b> Application of Arka Microbial Consortium		229.63	205809	2.08	

**Table 2 : Data on other performance indicators\***

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Days to 50% flowering	48.7	44.7	46.9
Average fruit weight(g)	4.3	5.4	4.8

**Description of the results:** Application of CSR grow sure (TO1) was recorded 21.04% higher yield (243.05 q/ha) as compared to Arka Microbial consortium (TO2). A net return of Rs. 85378 per hectare was recorded in CSR grow sure.

**9. Constraints:** Poor or non availability of grow sure medium for the farmers directly.

**10. Feedback of the farmers involved:** Easy handling and application of CSR grow sure and given higher yield and fruit quality.

**11. Feed back to the scientist who developed the technology:** The CSR grow sure is very effective in improving the crop health and yield. It made available to the farmers easily through other ICAR institution.

#### 4.1.7. Assessment of micro nutrient formulation for high productivity in banana

1. **Thematic area** : Crop Production and Management
2. **Title** : Assessment of micro nutrient formulation for high productivity in banana
3. **Scientists involved** : Subject Matter Specialist (Horticulture).
4. **Details of farming situation :**

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy loam	L	M	H	665.2	18

5. **Problem definition / description:**

- Lack of knowledge on micro nutrient application, Low yield, Poor quality.

6. **Technology Assessed:**

**TO1** : Application of Banana sakthi.

**TO2** : Application of Banana special.

**FP** : Application of NPK.

7. **Critical inputs given:**

Name of the input	Quantity	Value in Rupees
Banana special	16 kg	2912.00
Banana sakthi	15 kg	3750.00
Field board	5 Nos	1504.50
<b>Total Rs.</b>		<b>8166.50</b>

8. **Results** :

**Table 1 : Performance of the technology**

Technology Option	No. of trials	Yield (q/ha)	Net returns (Rs./ha)	BCR	Data on Other performance indicators*
<b>FP:</b> Application of NPK	5	304.2	211575	2.12	<ul style="list-style-type: none"> <li>▪ Bunch weight (Kg)</li> <li>▪ No. of hands per bunch</li> </ul>
<b>TO1:</b> Application of Banana sakthi		369.3	299346	2.85	
<b>TO2:</b> Application of Banana special		337.1	258258	2.47	

**Table 2 : Data on other performance indicators\***

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Bunch weight (Kg)	24.5	29.9	27.8
No. of hands per bunch	7.6	11.5	9.82

**Description of the results:** Application of Banana sakthi (TO1) was recorded 21.42% higher yield (369.3 q/ha) as compared to Banana special (TO2). A net return of Rs. 87771 per hectare was recorded.

9. **Constraints:** Preparation of micro nutrient mixture process is time consuming.
10. **Feedback of the farmers involved:** Application of banana sakthi MN mixture given higher yield and improve fruit quality.
11. **Feed back to the scientist who developed the technology:** The banana sakthi is very effective in improving the crop health and yield. If the MN mixture is ready to use, it will be the useful to farmers.

#### 4.1.8. Assessment of Mung bean Yellow Mosaic Virus resistant varieties in Blackgram

1. **Thematic area** : Varietal evaluation
2. **Title** : Assessment of Mung bean Yellow Mosaic Virus resistant varieties in Blackgram
3. **Scientists involved** : Subject Matter Specialist (Plant Protection)
4. **Details of farming situation:**

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigation	Rabi	Sandy loam	L	M	H	243.52	14

#### 5. Problem definition / description:

- High incidence of YMV
- Lack of knowledge on resistant variety
- Poor yield (6.21Q/ha).

#### 6. Technology Assessed:

**TO1 : LBG 884-** Tolerant to Mung bean Yellow Mosaic Virus, Photo insensitive variety, Medium bold and shiny variety, Yield: Irrigated –2000 - 2200 kg/ha, Duration: 80-85 days.

**TO2 : VBN 11** - Resistant to Mungbean Yellow Mosaic Virus and Leaf Curl Virus diseases. Duration: 70-75 days. Yield: Irrigated –940 kg/ha; Rainfed: 865 kg/ha, Suitable for all seasons of Tamil Nadu.

**FP** : Cultivation of local variety

## 7. Critical inputs given

Name of the input	Quantity	Value in Rupees
LBG blackgram seed	20 kg	2400.00
VBN 11 blackgram seed	20 kg	2400.00
<i>Trichoderma viride</i>	10 kg	1750.00
<i>Bacillus subtilis</i>	10 kg	1750.00
Field board	5 nos	1504.50
<b>Total Rs.</b>		<b>9804.50</b>

## 8. Results:

**Table :** Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
Farmers Practice	5	6.94	26357.00	1.81:1
<b>TO1: LBG 884</b>		9.82	48836.00	2.41:1
<b>TO2: VBN 11</b>		8.16	35160.00	2.03:1

**Table 2 :** Data on other Performance indicators\*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Percent Disease Incidence of YMV	26.81	6.34	9.80

**Description of the results:** Cultivation of LBG 884 (TO1) recorded higher yield (41.40%) and shows the resistance against the YVM disease as recorded 6.34 % followed by VBN 11(TO2) variety gives 8.16 q/ha yield and the disease incidence has recorded 9.80% compared to the local check (26.81%). The benefit cost ratio of 2.41:1 was with a higher net income of Rs. 48836/ha in LBG 884 followed by VBN 11 gives 2.03:1 BCR and net return of Rs.35160/ha.

**9. Constrains:** Non availability of quality seeds in the state department of Agriculture.

**10. Feed back of the farmers involved :** The farmers felt that cultivation of LBG 884 blackgram variety shows the very good resistance against the YVM disease (TO1) has given higher yield and additional net return of Rs. 22479.00/ ha.

**11. Feed back to the scientist who developed the technology: -**

#### 4.1.9. Assessment of biological methods for the management of root knot nematode in Tomato

1. **Thematic area** : Integrated Pest Management
2. **Title** : Assessment of biological methods for the management of root knot nematode in Tomato
3. **Scientists involved** : Subject Matter Specialist (Plant Protection).
4. **Details of farming situation:**

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Sandy loam	L	M	H	739.50	22

5. **Problem definition / description:**

- High incidence of Nematode
- Lack of knowledge
- Low yield

6. **Technology Assessed:**

**TO 1** : Basal application of bio- enriched farm yard manure @ 1.0 ton /acre (Purpureocillium lilacinum) + Application of liquid formulation of P.lilacinum @ 1.0 l/ac through drip at the time of planting and repeated thrice at 30,60 and 90 days after planting.

**TO 2** : Basal application of bio- enriched farm yard manure @ 1.0 ton /acre (Pochonia chlamydosporia) + Application of liquid formulation of P. chlamydosporia @ 1.0 l/ac through drip at the time of planting and repeated thrice at 30,60 and 90 days after planting.

**FP** : Application of carbofuron 10 kg/ha

7. **Critical inputs given:**

S.No	Name of the input	Quantity	Value (Rs.)
1	<i>Pochonia chlamydosporia-</i>	10 lit	3540.00
2	<i>Purpureocillium lilacinum</i>	10 lit	3540.00
3	Field Board	5 Nos	1504.50
<b>Total</b>			<b>8584.50</b>

## 8. Results

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ ha)	BCR	Percent Nematode incidence (%)
FP		801.04	201468	2.01	19.80
TO 1	5	900.36	263214	2.41	3.94
TO 2		918.36	272834	2.46	3.48

**Description of the results:** The TO2 recorded higher yield (918.36 q/ha) as compared with TO1 (900.36 q/ha) and farmers' practice (801.04 q/ha). Besides, the average yield increased by 14.65 percent with higher BCR of 2.46. It also revealed that the incidence of nematode is reduced by 3.48 % followed by TO1 shows 3.94 % compared with farmer practices (19.80 %).

**9. Constrains:** Poor availability of bio control agents in the local market and State department.

**10. Feed back of the farmers involved :** The farmers felt that adoption of TO2 in tomato cultivation has given higher yield and higher economic returns of Rs. 272834.00/ ha with less incidence of nematode compared to other technologies.

**11. Feed back to the scientist who developed the technology: -**

### 4.1.10. Assessment of biological methods for the management of *Fusarium* wilt in banana

- 1. Thematic area** : Integrated Disease Management
- 2. Title** : Assessment of biological methods for the management of *Fusarium* wilt in banana
- 3. Scientists involved** : Subject Matter Specialist (Plant Protection).
- 4. Details of farming situation:**

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy clayloam	L	M	H	1125.03	32

**5. Problem definition / description:**

- High incidence of Panama wilt
- Lack of knowledge on IDM
- Low yield

## 6. Technology Assessed:

**TO 1** : Application of Microbial consortia for Fusarium wilt disease in banana @ 50 g per plant at the time of planting and during 2nd and 4th month after planting

**TO 2** : Bacillus subtilis and Trichoderma asperellum 2.5 kg/ha (Each) + FYM + neem cake for 3 times at 2nd, 4th, 6th month after planting. Corm injection of Carbendazim 0.2 % for 3 times at 2nd, 4th, 6th month after planting.

**FP** : Application of Carbandazim

## 7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	<i>Trichoderma asperellum</i>	50 kg	2500.00
2	<i>Bacillus flexus</i>	50 kg	5000.00
3	<i>Trichoderma viride</i>	15 kg	2625.00
4	<i>Bacillus subtilis</i>	15 kg	2625.00
5	Field Board	5 Nos	1504.50
<b>Total</b>			<b>14254.50</b>

## 8. Results

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ ha)	BCR	Percent Disease Incidence (%)
<b>FP</b>		473.56	365294	2.32	18.51
<b>TO 1</b>	5	528.26	442543	2.77	2.99
<b>TO 2</b>		535.02	471617	2.93	4.57

**Description of the results:** The TO2 found higher yield (535.02 q/ha) as compared with TO1 (528.26 q/ha) and farmers' practice (473.56 q/ha). Besides, the average yield increased by 12.98 percent with higher BCR of 2.93. It also revealed that the disease incidence of Panama recorded 2.99 % compared with farmer practice 18.51 percent.

**Constrains :** Quality bio control agents availability in farmers locality.

**10. Feed back of the farmers involved :** The farmers felt that management of Panama wilt disease by adoption of TO2 has given higher yield and higher economic returns of Rs. 722277.00/ ha with less incidence of wilt disease compared to other technologies.

**11. Feed back to the scientist who developed the technology:** Cost effective, farmer friendly, disease detection tool may be developed.

#### 4.1.11. Assessment of poultry breeds under backyard condition

1. Thematic area : Breed Evaluation
2. Title : Assessment of poultry breeds under backyard condition
3. Scientists involved : Subject Matter Specialist (Animal Science).
4. Details of farming situation : Not applicable

5. **Problem definition / description:**

- Less number of egg production
- Low hatchability,
- Chick mortality,
- Less feed efficiency

6. **Technology Assessed:**

**TO 1** : TANUVAS Star Chicken :

**TO 2** : Vanashree

**FP** : Assel, Assel cross, chiruvidai

7. **Critical inputs given:**

S.No	Name of the input	Quantity	Value (Rs.)
1	TANUVAS Star chicken	125 Nos	5625.00
2	Vanashree Chicks	125Nos	5000.00
3	Field board	5 Nos	1504.00
<b>Total</b>			<b>12129.00</b>

8. **Results:**

**Table 1: Performance of the technology**

Technology Option	No. of trials	Egg Production(Nos)	Net Return (Rs.)	BCR	Data on Other performance indicators
					Mortality %
<b>FP</b>	5	84	965.00	1.23	36
<b>TO1</b>		184	10296.00	4.12	5
<b>TO2</b>		175	7895.00	3.39	12

**Description of the results:** It is found that the TO1 TANUVAS star chicken has given higher egg production and low mortality percentage when compared to TO2 Vanashree chicks and farmers' practice with higher BCR of 4.12. Overall, the TANUVAS developed Chicks found effective in egg production and gained high net income of Rs.10296.00 as compared to farmers' practice.

9. **Constrains:** Nil

10. **Feed back of the farmers involved :** The fighting behavior of Star chicken is poor compared to vanashree breed
11. **Feed back to the scientist who developed the technology :** The TANUVAS star chicken can not be used for incubation due to its behaviour.

#### 4.1.12. Assessment of milk replacer for lambs

1. Thematic area : Production Management
2. Title : Assessment of milk replacer for lambs
3. Scientists involved : Subject Matter Specialist (Animal Science).
4. Details of farming situation : Not applicable
5. **Problem definition / description:**
  - One of the major concerns in sheep production is the lower body weight gain in lambs during pre-weaning phase (first 90-100 days).
  - The low plane of nutrition during the early phase of growth in lambs reduces the immunity and increases the susceptibility to diseases resulting in lower body weight gains and high mortality
6. **Technology Assessed:**

**TO 1** : NIANP Milk replacer

**TO 2** : CSWRI Milk replacer

**FP** : Cow milk. (Farmers practice)
7. **Critical inputs given:**

S.No	Name of the input	Quantity	Value (Rs.)
1	NIANP Milk replacer	20 Kgs	5800.00
2	CSWRI Milk replacer	20 Kgs	5700.00
3	Field board	5 Nos	1504.00
<b>Total</b>			<b>13004.00</b>

#### 8. Results:

**Table 1: Performance of the technology**

Technology Option	No. of trials	Body weight (kg)	Net Return (Rs.)	BCR	Data on Other performance indicators
					Lamp mortality %
<b>FP</b>	5	13	7525.00	1.55	85
<b>TO1</b>		18	27655.00	2.38	7
<b>TO2</b>		16	19700.00	1.94	12

**Description of the results** : It is found that the TO1 NIANP milk replacer has given higher body weight and low mortality when compared to TO2 CSWRI milk replacer and farmers' practice with higher BCR of 2.38.

Overall, the NIANP Bangalore developed milk replacer found effective in higher body weight ,reduction of lamp mortality and gained high net income of Rs.27655.00 as compared to farmers' practice.

9. **Constrains** : Nil
10. **Feed back of the farmers involved** : The preference of consumption by the lamp was high in NIANP milk replacer due to its odour compared to CSWRI milk replacer.
11. **Feed back to the scientist who developed the technology** : The size of the packing may be prepared by 1 kg for easy usage.

#### 4.1.13. Assessment of wound healer in cattle

1. Thematic area : Disease management
2. Title : Assessment of wound healer in cattle
3. Scientists involved : Subject Matter Specialist (Animal Science).
4. Details of farming situation : Not applicable
5. **Problem definition / description:**
  - Open wounds by flies and Maggots are commonly occurs in cattle, it will affect the feed intake in turn reduce milk production.
6. **Technology Assessed:**

TO 1 : TANUVAS Nano Heal cream

TO 2 : Healex-FR : Herbal antiseptic gel

FP Application of turmeric with neem leaves. (Farmers practice)
7. **Critical inputs given:**

S.No	Name of the input	Quantity	Value (Rs.)
1	TANUVAS Nano Heal Cream	20 Nos	2150.00
2	Healex FR	20 Nos	720.00
3	Field board	5 Nos	1504.00
<b>Total</b>			<b>4374.00</b>

## 8. Results:

**Table 1: Performance of the technology**

Technology Option	No. of trials	Wound healing in Days	Net Return (Rs.)	BCR
FP	5	14	16248.00	1.27
TO1		6.2	52580.00	2.14
TO2		8.8	33468.00	1.6

**Description of the results:** It is found that the TO1 Nano heal cream was more effective in wound healing when compared to TO2 Healex FR and farmers' practice higher BCR of 2.14

Overall, the TANUVAS developed Nano heal cream effective in wound healing and gained high net income of Rs.52580.00 as compared to farmers' practice.

## 9. Constrains: Nil

**10. Feed back of the farmers involved :** Even unskilled farmer can apply the Cream easily in the wound.

**11. Feed back to the scientist who developed the technology :** The farmers prefer spray for wound rather than cream.

### 4.1.14. Assessment of insecticide for control of ticks in Goat

1. Thematic area : Disease management
2. Title : Assessment of insecticide for control of ticks in goat
3. Scientists involved : Subject Matter Specialist (Animal Science).
4. Details of farming situation : Not applicable
5. **Problem definition / description:**
  - Insects such as flies, mosquitoes, cattle grubs, and lice as well as ticks and mites are the major external parasites of dairy animals.
  - These pests cause obvious discomfort to livestock and economic effects in Goat farming.

## 6. Technology Assessed:

**TO 1** : TANUVAS Methicone

**TO 2** : Megatex Spray

**FP** : Application of Amitraz. (Farmers practice)

## 7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	TANUVAS Methicone	50 Nos	8550.00
2	Megatex Spray	50Nos	5500.00
3	Field board	5 Nos	1500.00
<b>Total</b>			<b>15550.00</b>

## 8. Results:

**Table 1: Performance of the technology**

Technology Option	No. of trials	Body weight (kg)	Net Return (Rs.)	BCR	Data on Other performance indicators
					Infestation %
FP	5	11	1220.00	1.09	55
TO1		12	19320.00	2.09	15
TO2		14	24500.00	2.37	5

**Description of the results:** It is found that the TO2 Megatex spray has high reduction in ectoparasite infestation 95% when compared to TO1 Methocone 85% and farmers' practice 45% with higher BCR of 2.37

Overall, the CIRG developed Herbal extract base liquid spray found effective in reduction of ectoparasite infestation and gained high net income of Rs.24500.00 as compared to farmers' practice.

**9. Constrains :** Nil

**10. Feed back of the farmers involved :** The Megatex spray is safe to handle and found to be effective compared to Methicone spray.

**11. Feed back to the scientist who developed the technology :** Though the megatex spray is effective in controlling ticks, spraying nozzle can be fixed with spray for easy spraying.

#### 4.1.2. Frontline Demonstrations in Detail

##### A. Follow-up of FLDs implemented during previous years

S. No.	Crop/ Enterprise	Thematic Area	Technology demonstrated as a follow-up from OFT	Feedback sent to the Research System	Details on the performance of the technology sent to the Extension Department	Horizontal spread of technology		
						No. of villages	No. of farmers	Area in ha
1	Paddy	Varietal demonstration	Demonstration of ADT 57 paddy	<ul style="list-style-type: none"> <li>Slender rice suitable for all season and 60% head rice recovery</li> </ul>	<ul style="list-style-type: none"> <li>Supply of seeds at low cost.</li> <li>Conduction of training, demonstration and Mass media coverage.</li> </ul>	924	29650	20560
2	Paddy	IPDM	Integrated pest and disease management in paddy	<ul style="list-style-type: none"> <li>High yielding, pest (Stem borer) and disease (False smut) resistant variety may be develop.</li> </ul>	<ul style="list-style-type: none"> <li>Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage</li> </ul>	96	3524	2117
3	Paddy	Drudgery reduction	Direct sown paddy drum seeder	<ul style="list-style-type: none"> <li>Efficient weed control tools may be introduced in area which direct sown paddy drum seeder is used</li> </ul>	<ul style="list-style-type: none"> <li>Supply of drum seeder at nominal cost.</li> <li>Conduction of training, demonstration, Exhibition and Mass media coverage.</li> </ul>	695	19710	22650
4	Maize	IPM	Integrated Fall Army worm management in Maize	<ul style="list-style-type: none"> <li>High yielding hybrids with resistance to FAW</li> </ul>	<ul style="list-style-type: none"> <li>Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage</li> </ul>	24	866	304
5	Little millet	Varietal demonstration	Demonstration of ATL 1 Little millet variety	<ul style="list-style-type: none"> <li>Drought tolerant, suitable for mechanical harvesting and high milling recovery</li> </ul>	<ul style="list-style-type: none"> <li>Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage</li> </ul>	65	4565	1564

6	Blackgram	Varietal demonstration	Demonstration of VBN- 11 blackgram	<ul style="list-style-type: none"> <li>▪ Powdery mildew resistant variety may be develop.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Supply of seeds at low cost.</li> <li>▪ Conduction of training, demonstration, Exhibition and Mass media coverage.</li> </ul>	182	1420	524
7	Ridge gourd	Varietal demonstration	Demonstration of ridge gourd COH 1	<ul style="list-style-type: none"> <li>▪ Higher yielder. Improved hybrids with resistance to fruit fly and fruit borer may be developed.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Report on results given. Suggested popularisation methods viz., Supply of seeds at subsidized rate, Conduction of training, demonstration and Mass media coverage.</li> </ul>	48	623	158
8	Chilli	IPDM	Demonstration of IPDM in chillies	<ul style="list-style-type: none"> <li>▪ Pest and Disease resistant/Tolerant hybrid may be developed</li> </ul>	<ul style="list-style-type: none"> <li>▪ Report on results given. Suggested popularisation methods viz., Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage.</li> </ul>	28	425	102
9	Brinjal	Varietal demonstration	Demonstration of improved brinjal variety VRM (Br)2	<ul style="list-style-type: none"> <li>▪ Harvesting was easy due to absence of spiny.</li> <li>▪ Varieties with shoot and fruit borer resistance may be developed.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of training and demonstration.</li> </ul>	52	586	235
10	Banana	IPDM	Integrated pest and disease Management in banana	High yielding disease resistant varieties may develop	<ul style="list-style-type: none"> <li>Report on results given. Suggested popularization methods viz., Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage.</li> </ul>	22	396	176

11	Snake gourd	ICM	Integrated Crop Management in Snake gourd	<ul style="list-style-type: none"> <li>ICM technologies are economically viable and yielding best results at field level.</li> </ul>	<ul style="list-style-type: none"> <li>Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of training, demonstration, Exhibition and Mass media coverage.</li> </ul>	45	512	187
12	Turmeric	ICM	Integrated Crop Management in turmeric	<ul style="list-style-type: none"> <li>ICM technologies are economically viable and yielding best results at field level. A micro nutrient formulation may be developed especially for Turmeric.</li> </ul>	<ul style="list-style-type: none"> <li>Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of training, demonstration, Exhibition and Mass media coverage.</li> </ul>	41	445	214
13	Millet	Value addition	Preparation of convenience food (Health mix, Adai mix, Laddu mix, Muruku mix)	<ul style="list-style-type: none"> <li>District wise marketing avenues may develop for farmer's level value added products.</li> </ul>	<ul style="list-style-type: none"> <li>Trainings, Demonstration, Exhibition, Mass media coverage.</li> </ul>	48	356	-

## B. Details of FLDs implemented during the reporting period

### 1. Demonstration of Barnyard millet Variety ATL 1

Crop/Enterprise : Millet  
Thematic area : Varietal demonstration

#### Technology Demonstrated :

- Demonstration of Barnyard millet Variety ATL 1
- It matures in 90 days Rainfed: Aadi (June–July) & Purattaasi (September–October)
- Grain: 2123 kg/ha; Dry fodder: 3057 kg/ha
- Drought tolerant; Non lodging, Long, compact, cylindrical and non-shattering panicle  
Resistant to stem and borer shoot fly; Moderately resistant to grain smut

Season and year : Rabi 2023-24

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy clay loam	L	M	M	10.5	3

Source of fund : ICAR

No of locations (Villages) : 1 (Sirumur, Arni)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	10	-	4	4	-

**Feedback from farmers :** The Barnyard millet variety ATL 1 yielded 19.78 qtl/ha with a net income of Rs.35295/- when compared to the local variety Rs.18444/- The BCR is recorded as 2.48

**Feedback of the Scientist :** The availability of seeds may be ensured by the SAUs to take up the cultivation on time. Marketing facilities may be created in linkages with other stakeholders for easy sale of the produce.

#### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field day	1	08.05.24	10	-
2	Farmers Training	2	07.08.23 14.02.24	42	-
3	Media coverage	1	15.02.24	10	Kalam news, Public tv.

## 2. Demonstration of Finger millet Variety ATL 1

Crop/Enterprise : Millet  
Thematic area : Varietal demonstration

### Technology Demonstrated :

- Demonstration of Finger millet Variety ATL 1
- Synchronized maturity and non-lodging growth habit.
- Moderately resistant to leaf, neck and finger blasts.
- It has recorded 3128 kg/ha and 2879 kg/ha under irrigated and rainfed conditions respectively.

Season and year : *Kharif 2023-24*

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	<i>Kharif</i>	Sandy clay loam	L	M	M	521	13

Source of fund : ICAR

No of locations (Villages) : 1 (Poonaspadi, Thandrampat)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	10	-	4	4	-

**Feedback from farmers** : The Finger millet ATL 1 showed Synchronized maturity. The yield obtained was 25.09 qtl/ha while, other local variety possess 20.7 qtl/ha. The net income of the farmer increased from Rs.50320/- to Rs.69615/- with the BCR of 2.31

**Feedback of the Scientist** : The availability of seeds to take up the sowing in the right season is very poor. It may be available to the farmers through various agencies on time.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field day	1	02.11.24	10	-
2	Farmers Training	2	07.08.23 14.02.24	42	-
3	Media coverage	1	08.08.24	10	Kalam news, Public tv.

### 3. Demonstration of improved kavuni CO57 under organic farming

Crop/Enterprise : Paddy  
Thematic area : Varietal demonstration

#### Technology Demonstrated :

- Demonstration of Paddy variety Improved Kavuni CO 57
- Duration-130-135 days
- Photo – insensitive, resistant to bacterial leaf blight, sheath blight and false smut.
- Grain yield is 4638 kg /ha

Season and year : Kharif 2023-24

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Sandy clay loam	L	M	M	524.4	15

Source of fund : ICAR

No of locations (Villages) : 1 (Arasankuppam, Vembakkam)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
5	5	-	2	2	-

#### Feedback from farmers :

The Paddy variety Improved Kavuni CO 57 yielded 34.54 qtl/ha with a net income of Rs.76448/- when compared to the local traditional variety Rs.50912/- and organic bio inputs reduced the cost of cultivation. The BCR is recorded as 2.25

**Feedback of the Scientist :** Marketing facilities may be created for easy sale of the organic produce with the organic certification.

#### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field day	1	29.01.24	10	-
2	Farmers Training	4	22.07.23 25.07.23 03.10.23 04.10.23	65	-
3	Media coverage	1	04.10.23	10	Kalam news, Public tv.

#### 4. Demonstration of improved variety VRM(Br)2

Crop : Brinjal  
Thematic area : Varietal demonstration

##### Technology demonstrated :

- Introduction of new variety
- Application of vegetable special @ 0.5%
- Seed treatment with *Bacillus subtilis*

Season and year : Kharif 2023-24

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Sandy loam	L	M	H	570.6	13

Source of fund : ICAR

No of locations (Villages) : 1 (Amuthur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	10	-	2	2	-

**Feedback from farmers** : The brinjal variety VRM (Br) 2 has given higher yield of 339.5 Q/ha with a net income of Rs. 273728.

**Feedback of the Scientist** : The brinjal variety VRM (Br) 2 has recorded higher yield (21.68%) as compared to VRM (Br)1 – Spiny brinjal. Harvesting of VRM (Br) 2 made easy due to absence of spines.

##### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	22.04.2024	15	-
2	Farmers Training	1	09.08.2023	10	-
		1	23.01.2024	11	
3	Media coverage	1	09.08.2023		Public digital
4	Training for extension functionaries	-	-	-	-

## 5. Demonstration of watermelon variety Arka shyama

Crop : Watermelon  
Thematic area : Varietal demonstration

### Technology demonstrated :

- Introduction of new watermelon variety.
- Application of Vegetable special foliar spray @ 0.1%

Season and year : Rabi 2023-24  
Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy loam	L	H	H	106	12

Source of fund : ICAR  
No of locations (Villages) : 1 (Maruthadu)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	-	10	1	1	-

**Feedback from farmers** : Watermelon Arka shyama gives yield of 238.1 Q/ha which is higher than local varieties with a net return is Rs.52232. It also fetched good market price as well as high fruit quality.

**Feedback of the Scientist** : Watermelon variety Arka shyama has resulted in 22.01% higher yield as compared to farmer practice (195.1 Q/ha). The BCR recorded was 2.31.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days				-
2	Farmers Training	1	12.01.24	12	
3	Media coverage	1	12.01.24		Public TV
4	Training for extension functionaries	-	-	-	-

## 6. Demonstration of Integrated Crop Management in Tuberose

Crop : Tuberose  
Thematic area : Crop Production and Management

### Technology demonstrated :

- Soil application of *Paecilomyces* and *Bacillus subtilis* @ 2.5kg/ha
- MN mixture foliar Spray @ 0.1 %
- Spraying of Neem, Pongamia soap @ 250 kg/ha
- Installation of yellow sticky traps @ 12 No/ha

Season and year : Kharif 2023-24

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Sandy loam	L	M	H	1443.4	11

Source of fund : ICAR

No of locations (Villages) : 1 (Mottur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	-	10	4	4	-

**Feedback from farmers** : The adoption of ICM technologies given higher flower yield (105.9 Q/ha) and income (Rs.267959). The quality of the flowers has improved and fetched good market price. Sucking pest attack was minimized.

**Feedback of the Scientist** : The adoption of ICM technologies resulted in 19.79 % higher yield (105.9 Q/ha) as compared to farmer practice in Tuberose. The BCR recorded was 2.89.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	1	07.08.2023	11	-
3	Media coverage	1	07.08.2023		Public digital
4	Training for extension functionaries				

## 7. Demonstration of TNAU micro nutrient mixture in Turmeric

Crop : Turmeric  
Thematic area : Crop Production and Management

### Technology demonstrated :

- Soil application of TNAU MN mixture @ 15kg/ ha
- Soil application of *Bacillus subtilis* @ 2.5kg/ha and *Trichoderma viride* @ 2.5kg/ha
- Spraying of Neem, Pongamia soap @ 1%

Season and year : Kharif 2023-24

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Sandy loam	L	M	H	958.7	11

Source of fund : ICAR

No of locations (Villages) : 1 (Ammapalayam)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	-	10	4	4	-

**Feedback from farmers** : The adoption of TNAU MN mixture technologies given higher yield (236.1 Q/ha) and income (Rs.203811). The quality of the turmeric fingers was improved and fetched good market price.

**Feedback of the Scientist** : TNAU MN mixture technologies resulted in 20.49% higher yield as compared to farmer practice in turmeric. The BCR recorded was 2.62.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	1	25.07.2023	12	-
3	Media coverage	1	25.07.2023		Public digital
4	Training for extension functionaries				

## 8. Demonstration of Ridge gourd variety MDU 1 (2024)

Crop : Ridge gourd

Thematic area : Varietal demonstration

### Technology demonstrated :

- Introduction of new variety
- Application of vegetable special @ 0.1%
- Seed treatment with *Bacillus subtilis*

Season and year : Kharif 2024-25

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Sandy loam	L	M	H	570.6	13

Source of fund : ICAR

No of locations (Villages) : 1 (Kilsembedu)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	-	10	4	4	-

**Feedback from farmers** : The Ridge gourd variety MDU 1 has given higher yield of 189.9 Q/ha with a net income of Rs. 255902.

**Feedback of the Scientist** : The Ridge gourd MDU 1 has recorded higher yield (20.22 %) as compared to farmer practice. The BCR ratio is 2.35.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	28.12.24	15	-
2	Farmers Training	1	18.07.24	10	-
		1	06.09.24	16	
3	Media coverage	1	18.07.24		Public digital
4	Training for extension functionaries	-	-	-	-

## 9. Demonstration on IPDM in Rice - 2023

Crop : Paddy  
Thematic area : Integrated Pest Management

### Technology demonstrated :

- Cowpea and sunflower as border crops.
- *Bacillus subtilis*- Seed treatment @ 10 g/kg, Soil application @ 1kg/acre, Seedling root dip @ 1kg/acre.
- Release of *Trichogramma japonicum* @ 2 cc & *Trichogramma chilonis* @ 2 cc.
- Installation of solar light trap @ 1/acre and Installation of Yellow sticky trap @ 5nos/acre.
- Installation of Stem borer Nano *SciLure* @ 10nos/acre
- Need based application of Neem oil @ 3% and Camphor oil 400 ml/acre
- Foliar application of Cartop Hydrochloride 50% SP@ 400 g/ac, Azoxystrobin 25 SC @ 200 ml ac

Season and year : Rabi 2023

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Clay soil	L	M	M	81.19	5

Source of fund : ICAR

No of locations (Villages) : 1 (Karanthai)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	10	10	4	4	-

**Feedback from farmers** : Adoption of IPDM technologies in paddy increased the yield 59.64 q/ha and net income of Rs. 62614.00 with a BCR 2.40. Adoption of IPDM technologies reduced the pesticides requirement and also effectively managed the pest and diseases.

**Feedback of the Scientist** : The IPDM Technologies reduced the pest and diseases incidence viz, Stem Borer (4.48%), Tungro 6.61%), Blast (5.12%) and BLB (8.01%). Technologies found increasing the yield by 12.72% and additional net return of Rs.17416.00/ha.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field day	1	28.04.2024	22	-
2	Farmers Training	3	19.01.2024, 27.02.2024, 02.03.2024	58	-
3	Media coverage	2	19.01.2024, 20.01.2024	-	Kalam News

## 10. Demonstration of IPDM in Chilli 2023

Crop : Chilli  
Thematic area : Integrated Pest Management

### Technology demonstrated :

- Seed treatment with *Bacillus subtilis* (Bbv57) @ 10g/kg of seed.
- Three rows of closely sown maize as barrier crop and agathi as intercrop.
- Soil application of *Bacillus subtilis* and *Trichoderma asperellum* 2.5 kg/ha (Each)
- Installation of Yellow sticky traps @ 12 Nos./ha.
- Roguing out of virus infected plants upto 45 days after transplanting.
- Application of imidacloprid 17.8% SL @ 150 ml/ha followed by pyriproxyfen 10%EC @ 500 ml/ha at 10 days interval.
- Application of Azoxystrobin 18.2% w/w + Difenconazole 11.4% w/w SC @ 1 ml/lit thrice at 15 days interval immediately after noticing the powdery mildew / die-back

Season and year : Rabi 2023

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Red loamy soil	L	M	H	272.35	10

Source of fund : ICAR

No of locations (Villages) : 1 (Mattapiraiyur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
5	0	5	1	1	-

**Feedback from farmers** : Adoption of IPDM technologies in Chilli increased the yield by 20.95 q/ha with a net income Rs. 305104/ha and reduced the pest and disease incidence.

**Feedback of the Scientist** : The IPDM Technologies found effective against the pest and diseases incidence viz, Thrips (5.55 %), Aphid (6.31 %) and Mites (5.85 %). Technologies found higher yield (230.80 q/ha) and additional net return (97656.00/ha).

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	02.07.2024	25	-
2	Farmers Training	2	06.01.2024 04.06.2024	28	-
3	Media coverage	1	18.03.2024	-	-

## 11. Demonstration on IPDM in Paddy - 2024

Crop : Paddy  
Thematic area : Integrated Pest Management

### Technology demonstrated :

- *Bacillus subtilis*- Seed treatment @ 10 g/kg, Soil application @ 1kg/acre, Seedling root dip @ 1kg/acre
- Release of *Trichogramma japonicum* @ 2 cc & *Trichogramma chilonis* @ 2 cc.
- Installation of solar light trap @ 1/acre, Yellow sticky trap @ 5nos/acre and Stem borer pheromone trap @ 10 nos/acre.
- Need based application of Neem oil @ 3% and Camphor oil 400 ml/acre.
- Application of Cartop Hydrochloride 50% SP@ 400 g/ac, Azoxystrobin 25 SC@200ml ac.

Season and year : Kharif 2024

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Clay soil	L	M	M	643.14	15

Source of fund : ICAR

No of locations (Villages) : 1 (Karanai)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	10	10	4	4	-

**Feedback from farmers** : Adoption of IPDM technologies in paddy increased the yield 59.78 q/ha and net income of Rs. 68794.00 with a BCR 2.54. Adoption of IPDM technologies effectively managed the pest and diseases and reduced pesticides requirement.

**Feedback of the Scientist** : The IPDM Technologies reduced the incidence of pest and diseases viz, Stem Borer (4.81%), Tungro (6.48%), Blast (5.74%) and BLB (8.89%). Cultivation of Paddy along with IPDM technologies found increasing the yield by 11.82% and farmers gained net return of Rs.68794.00/ha.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field day	1	12.12.2024	20	-
2	Farmers Training	3	18.07.2024, 17.08.2024, 10.09.2024	38	-
3	Media coverage	2	18.07.2024, 05.11.2024	-	-

## 12. Demonstration of Wild Boar Bio-Repellent in Groundnut - 2024

Crop : Groundnut  
Thematic area : Integrated Pest Management

### Technology demonstrated :

- Spraying of Innovative Herboliv+ (10% dilution) with 10 days interval – 3 Application

Season and year : Kharif 2024

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Rainfed	Kharif	Red loamy soil	L	M	H	142.25	5

Source of fund : ICAR

No of locations (Villages) : 1 (Siruveliyallur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	0	10	4	4	-

**Feedback from farmers** : Application of bio repellent (Innovative herboliv) found effective against the wild boar damage (7.78 %) and increased the yield 19.40 %.

**Feedback of the Scientist** : Cultivation of Groundnut with application of Innovative Herboliv increased yield (19.29 q/ha) and net returns (Rs.39033.00) with less damage of wild boar (7.78 %) compared to normal practice (23.70 %). The benefit cost ratio recorded was 2.28.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field day	1	25.10.2024	24	-
2	Farmers Training	2	16.07.2024, 27.07.2024	28	-
3	Media coverage	1	09.12.2024	-	-

### 13. Demonstration on 10 cent model mixed fodder cultivation

Crop : Mixed Fodder  
Thematic area : Fodder production and Mangement

**Technology demonstrated :**

- 4 cent of high yielding multi cut grass variety (CO 5)
- 3 cent of high yielding multi cut desmanthus
- 3 cent of high yielding multi cut COFS 31 or single cut fodder cowpea.
- Agathi and Subabul as Border crops

Season and year : Kharif 2023

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif 2023	Sandy loam	L	M	M	603.04	18

Source of fund : ICAR

No of locations (Villages) : 1 (Padavedu)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	5	5	0.4	0.4	-

**Feedback from farmers :** The 10 cent model system of fodder cultivation continuously suppling the green fodder for the animal thorugout the year at the rate of 2.4 tonnes. It imporves the milk yield and quality.

**Feedback of the Scientist :** The body weight of the calf was improved and healthy. The incidence of repeat breeding is also minimized by 46%.

**Extension activities on the FLD:**

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	
2	Farmers Training	2	05.08.2023 18.10.2023	20	-
3	Media coverage	2	-	-	-
4	Training for extension functionaries	-	-	-	-

#### 14. Demonstration of Teat Protect in Milch Cow

Crop/Enterprises : Cow  
Thematic area : Disease Management

##### Technology demonstrated :

- Teat protect is a safe disinfectant spray in cow. Teat protect forms an antibacterial coating and prevents infection of teats and udder Immediately after milking wash the udder and spray teat protect.

Season and year : Kharif 2024  
Farming situation : -  
Source of fund : ICAR  
No of locations (Villages) : 1

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (Teat protect in Nos)	Actual area (Teat protect in Nos))	Justification for shortfall if any
10	10	-	50	50	-

**Feedback from farmers** : The usage of teat protect spray is not causing any harmful effect and easy to handle

**Feedback of the Scientist** : Teat protect sprays were found to be more effective than potassium permanganate teat dips.

##### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	12.02.24	30	-
2	Farmers Training	1	28.8.23	10	-
3	Method Demonstration	1	29.08.23	15	-
4	Training for extension functionaries	-	-	-	-

### 15. Demonstration of Probeads EC to improve the health and productivity of Desi Chicken

Crop/Enterprises : Poultry  
Thematic area : Production Management

#### Technology demonstrated :

- Supplementation of probiotics play an important role on the growth performance of native chicken to achieve early market weight.
- Dose- 1 tablet/per birds. Probeads-EC is cocktail of probiotic microbes in bead format for use as feed supplement.
- Probeads-Ec can be administered daily as five beads per bird by mixing the regular feed.

Season and year : Kharif  
Farming situation : -  
Source of fund : ICAR  
No of locations (Villages): 1

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (Probeads EC in Nos)	Actual area (Probeads EC in Nos))	Justification for shortfall if any
10	10	-	150	150	-

**Feedback from farmers** : The colour of the beads attracts the bird to eat. It is observed that no wastage occur during feeding. The growth of the bird was faster than free range system

**Feedback of the Scientist** : The farmers are difficult to maintain the Probeads EC in cold chain. So the technology may be developed for storage of beads without cold chain.

#### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	04.03.24	25	-
2	Farmers Training	1	30.08.23	16	-
3	Method Demonstration	1	30.08.23	16	-
4	Training for extension functionaries	-	-	-	-

## 16. Demonstration of herbal anthelmintic bolus for sheep

Crop/Enterprises : Sheep  
Thematic area : Disease Management

### Technology demonstrated :

- Anthelmintic bolus can be given orally to control of gastrointestinal parasitic infestation in animals .

Season and year : Rabi  
Farming situation : -  
Source of fund : ICAR  
No of locations (Villages) : 1

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (Anthelmintic bolus in Nos)	Actual area (Anthelmintic bolus in Nos))	Justification for shortfall if any
10	10	-	800	800	-

**Feedback from farmers** : The restrain of animal is needed for oral administration of bolus than syrup or suspension.

**Feedback of the Scientist** : The size of the bolus may be reduced for easy oral administration

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	04.10.24	23	-
2	Farmers Training	1	30.03.24	15	-
3	Method Demonstration	-	-	-	-
4	Training for extension functionaries	-	-	-	-

## 17. Demonstration of Amino Biotic mix for Goat

Crop/Enterprises : Goat  
Thematic area : Production Management

### Technology demonstrated :

- Amino biotic mix for body growth of goat. Amino Biotic Mix powder contains Vitamins, Amino acids and Minerals supplements for all livestock animals. Amino Biotic Mix is a vital fast releasing nano formulation powder that is quite helpful for instantly boosting overall health and metabolism of animals.

Season and year : Rabi  
Farming situation : -  
Source of fund : ICAR  
No of locations (Villages) : 1

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (Amino biotic mix in Kg)	Actual area (Amino biotic mix in Kg)	Justification for shortfall if any
10	10	-	10	10	-

**Feedback from farmers** : The growth of the goat is considerably faster than free grazing. The animals are not wasting the feed due to its odour and colour.

**Feedback of the Scientist** : The animals are preferred to take the amino biotic mix when mixing with the feed than mixing in water.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	05.02.24	20	-
2	Farmers Training	1	05.08.23	17	-
3	Method Demonstration	1	06.08.23	15	-
4	Training for extension functionaries	1	26.11.24	16	-

## 18. Demonstration of non dairy flavoured milk beverages from peanut

Crop : Groundnut  
Thematic area : Value addition

### Technology demonstrated

- Alternative non dairy milk from peanut.

Season and year : Rabi 2023  
Farming situation : -  
Source of fund : ICAR  
No of locations (Villages) : 1 (Mattathari)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	10	0	-	-	-

**Feedback from farmers** : Easy to use, this milk is high in fat and protein compared to other plant-based milks and also very smooth and creamy with just a barely peanut flavour.

**Feedback of the Scientist** : The adoption of peanut flavoured milk is highly acceptable based on the ready to use nature, consumer acceptability and its therapeutic properties. The BCR recorded was 3.05.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	1	13.10.23	10	-
3	Media coverage	1	13.10.23	-	Public app TV.
4	Training for extension functionaries	-	-	-	-
5	Extension activities	1	09.05.24	30	-

### 19. Demonstration on nutrient dense ready to use (RTU) multigrain mix

Crop : Traditional rice, millets

Thematic area : Value addition

#### Technology demonstrated :

- Demonstration on multigrain mix formulation.

Season and year : Rabi 2023

Farming situation : -

Source of fund : ICAR

No of locations (Villages) : 1 (Mattathari)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	10	0	-	-	-

**Feedback from farmers** : Gluten free multigrain mix, convenient product and versatility in nature.

**Feedback of the Scientist** : The adoption of multigrain mix is highly acceptable based on the ready to use nature, consumer acceptability and its therapeutic properties. The BCR recorded was 3.8.

#### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	2	16.10.23, 18.10.23	19	-
3	Media coverage	1	22.03.23	-	Public app TV.
4	Training for extension functionaries	-	-	-	-
5	Extension activities	1	06.05.24	30	-

## 20. Demonstration of Ready to eat and ready to Cook Mushroom products – EDP mode

Crop : Mushroom  
Thematic area : Value addition

### Technology demonstrated :

- Demonstration Mushroom pickle, mushroom powder, Soup mix, mushroom millet cookies.

Season and year : Rabi 2023  
Farming situation : -  
Source of fund : ICAR  
No of locations (Villages) : 1 (So.Kilnatchipattu)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
1	5	0	-	-	-

**Feedback from farmers** : Pickling mushroom extend shelf life, increase income and are a good source of protein.

**Feedback of the Scientist** : The adoptions of pickling mushrooms are commercially viable product increase income for mushroom growers. The BCR recorded was 2.58.

### Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	1	13.03.24	5	-
3	Media coverage	-	-	-	-
4	Training for extension functionaries	-	-	-	-
5	Extension activities	-	-	-	-

### 4.3 Extension Studies :

#### 1. Impact of CFLD Oilseeds on yield, economics and spread of technology in Thiruvannamalai district

Groundnut is a significant oilseed crop in Tamil Nadu, covering an area of 338300 hectares and producing 783200 tonnes. Approximately 70% of this area is rainfed, while the remaining 30% is irrigated. In Tamil Nadu, the majority of groundnut cultivation (43%) occurs in the North Eastern Zone, which includes the districts of Cuddalore, Villupuram, Thiruvannamalai, Vellore, Kancheepuram, Tiruvallur, and parts of Ariyalur.

In Thiruvannamalai, groundnut is cultivated on an area of 61730 hectares, yielding 140.43 tonnes with an average productivity of 2275 kg/ha. Of this, 19.30% is grown under irrigated conditions, while the remainder relies on rainfed practices. The productivity rates for groundnut in Thiruvannamalai are 986 kg/ha under irrigated conditions and 685 kg/ha under rainfed conditions.

The technology gap, primarily due to limited awareness of advanced cultivation techniques among farmers, hampers yield increases and sustainability in the district. The Cluster Frontline Demonstrations (CFLDs) initiative aims to showcase improved crop production technologies and enhance farmer awareness through demonstrations on larger areas of their fields.

#### Methodology

Krishi Vigyan Kendra, Thiruvannamalai implemented CFLDs featuring improved technologies for groundnut cultivation over five consecutive Kharif and Rabi seasons, from 2020-21 to 2023-24. These demonstrations were conducted across six selected clusters in Arni, Vandavasi, and Cheyyar blocks, accommodating various farming situations. Beneficiaries were chosen based on a baseline survey, focused group discussions, and field visits. A total of 300 demonstrations were held during these seasons, with 100 in each year.

Each demonstration was executed on a one-acre plot of the selected farmers' fields, with an adjacent acre designated as a control plot. Beneficiaries received pre-seasonal training on the improved practices to ensure successful implementation of the CFLDs. They were provided with crucial inputs for one acre, which included groundnut seeds of TMV 14, TCGS 1694 and VRI 9, seed treatments with *Trichoderma viride* and *Bacillus subtilis*, Imidacloprid at a rate of 1 ml per 7 ml of water for one kg of seed, rhizobium at 10 g/kg seed, pheromone traps at 10/ha for monitoring *Spodoptera*, TNAU Pulse Wonder at 2 kg/acre, and gypsum at 160 kg/acre.

The project evaluated yield differences between improved practices and local farmer practices, along with district and state averages. It also assessed the yield impact, adoption effects, and horizontal spread of the technology. Key metrics, such as the technology gap, technology index, and economic parameters, were compared to traditional farming practices.

#### Salient Findings

- The Cluster Frontline Demonstrations organized by KVK, Thiruvannamalai significantly enhanced groundnut yields and resulted in a rapid horizontal spread of 18241 hectares in the district.

- The pod yield of groundnut increased by up to 26.26% using improved practices compared to traditional methods.
- Gross returns (Rs. 149006/-), net returns (Rs. 96490/-), and a benefit-cost ratio of 2.81 were higher in the demonstrations than in traditional farming.
- The additional gross and net returns, coupled with the incremental benefit-cost ratio, were significantly greater with improved practices.
- The groundnut varieties VRI 2 and TMV 7 have been replaced by TMV 14, TCGS 1694 and VRI 9 through extensive demonstrations over the long term.
- CFLDs have notably impacted the horizontal spread of groundnut cultivation in the district over the last five years, resulting in an area under groundnut of 61730 hectares in 2023-24.

## 2. Technology Week Celebration :

Types of Activities	No. of Activities	Number of Participants	Related crop/ livestock technology
Gosthies	-	-	-
Lectures organized	5	90	Natural farming, Scientific Dairy farming, IPDM in agri and horticultural crops and Production technologies for agri crops
Exhibition	1	124	Organic inputs, Bio agents during the Natural farming training
Film show	3	110	Integrated Farming System, Success story of poultry farming and Dairy farming
Fair	2	122	KVK organized exhibitions to showcase millet value added products, Organic inputs, Crop specific micro nutrients, and Bio fertilizers.
Farm Visit	6	214	Visit to all demo units of KVK
Diagnostic Practical	2	25	Soil fertilization methodologies
Distribution of Literature (No.)	12	2400	Vermicompost, Azolla, Mushroom production, IPDM in paddy, Groundnut, Blackgram, Crop production technologies in field crops
Distribution of Seed (q)	1	72	Distributing the native vegetable seed kit
Distribution of Planting materials (No.)	1	110	Distributing the Agro forestry tree seedlings

## 6. Training/workshops/seminars etc. attended by KVK staff

Name of the staff	Title	Dates	Duratio	Organized by
Mr.R.Vijayakumar SMS Horticulture	Interaction on Digital Extension	09-02-2024	1	TNAU, Coimbatore
Mr.V.Suresh SS &Head	Research – Extension Interface Workshop	25-03-2024 to 26-03-2024	2	TNAU, Coimbatore
Mr.R.Vijayakumar SMS Horticulture	Research – Extension Interface Workshop	25-03-2024 to 26-03-2024	2	TNAU, Coimbatore
Mr.R.Vijayakumar SMS Horticulture	Pilot Training on Digital Agriculture Extension Facilitator training under ASCI	06-06-2024 to 10-06-2024	5	ICAR ATARI, TNAU, ASCI and NSFI
Mr.V.Suresh SS &Head	Online training to Master trainers on Natural Farming	25-06-2024 to 26-06-2024	2	MANAGE, Hyderabad.
Mr.P.Narayanan SMS-Plant Protection	Online training to Master trainers on Natural Farming	25-06-2024 to 26-06-2024	2	MANAGE, Hyderabad.
Mr.R.Vijayakumar SMS Horticulture	Online training to Master trainers on Natural Farming	25-06-2024 to 26-06-2024	2	MANAGE, Hyderabad
Mrs.M.Ishwarya SMS Agronomy	Online training to Master trainers on Natural Farming	25-06-2024 to 26-06-2024	2	MANAGE, Hyderabad
Mr.P.Chowthry PA, Lab Technician	Online training to Master trainers on Natural Farming	25-06-2024 to 26-06-2024	2	MANAGE, Hyderabad
Dr. K. Mayakrishnan SMS Animal Science	Dissemination of TANUVAS Technologies to KVK scientists of Tamil Nadu to augment livestock and poultry production for doubling farmers income	27-09-2024 to 28-09-2024	2	TANUVAS
Mr.P.Narayanan SMS-Plant Protection	Online training on Promotion of Bee keeping	26.11.2024 to 30.11.2024	5	Extension Education Institute, Hyderabad.

## 7. Details of sponsored projects/programmes implemented by KVK

S. No	Title of the programme / project	Sponsoring agency	Objectives	Duration (Days)	Amount (Rs)
1	Secondary agriculture, post harvest technologies, Proper harvesting techniques, grading and packaging, value addition	ATMA, Thiruvannamalai	<ul style="list-style-type: none"> <li>▪ To enhance the value of primary agricultural products through processing, diversification, and the integration of value-added activities.</li> <li>▪ It seeks to maximize the use of agricultural resources, generate additional income for farmers.</li> <li>▪ To create employment opportunities in rural areas, and promote sustainability.</li> </ul>	6	42000.00
2	Novel Products from Millets, Traditional Rice, Groundnut based products, Milk and Herbals for matured SHGs” in Tiruvannamalai District under LEDP	NABARD, Thiruvannamalai	<ul style="list-style-type: none"> <li>▪ To impart knowledge on value addition in millets, traditional rice, groundnut based products, milk and locally available herbals.</li> <li>▪ To encourage and equip the participants to start their small scale enterprises with the credit linkage of local bankers.</li> <li>▪ To provide marketing avenues for millets, traditional rice, groundnut based products, milk and locally available herbal based products.</li> </ul>	20 (2 Nos)	889750.00
3	Organic cultivator	ASCI, New Delhi	<ul style="list-style-type: none"> <li>▪ To ensure sustainable crop production and increase income levels of farmers by adopting organic farming.</li> <li>▪ To encourage, promote and development of organic farming system in the district.</li> <li>▪ To encourage the use of organic and biological sources (biofertilizers, organic manure, compost, bio-pesticides, bio-control agents etc.) in crop production.</li> <li>▪ To promote an alternative strategy over chemical farming.</li> </ul>	27	240500.00

4	Seed Production Technology	ATMA, Thiruvannamalai	<ul style="list-style-type: none"> <li>▪ To train the quality seed production technology in field crops.</li> <li>▪ To maintain the genetic purity of a specific crop variety.</li> <li>▪ To ensure seeds germination to grow into healthy plants.</li> <li>▪ To adopt the specific climatic, soil conditions and seed availability.</li> </ul>	6	42000.00
5	Training program on oil processing	KVIC, Chennai	<ul style="list-style-type: none"> <li>▪ To enhance the knowledge of oil processing artisans especially artisans' from BPL families.</li> <li>▪ To ensure timely availability of quality oil seeds to the artisans by encouraging farming community to involve seed production in oilseeds.</li> <li>▪ To improve the productivity of different types of oils and income of artisans.</li> </ul>	5 (2 Nos)	42000.00
6	Banana fibre extraction and fancy article making	KVIC, Chennai	<ul style="list-style-type: none"> <li>▪ To enhance the knowledge of banana fibre extraction artisans especially artisans' from BPL families.</li> <li>▪ To ensure timely availability of quality raw materials to the artisans by encouraging farming community to involve effective utilization of banana waste.</li> <li>▪ To improve the productivity of different types of banana fibre based handicrafts products.</li> </ul>	14 (2 Nos)	84000.00
7	Post Project Sustainability training for VWCs and PFAs" under KfW NABARD Soil Project	NABARD Thiruvannamalai	Advisories and impact studies on the sustainability of the projects by involving various stakeholders and technical institutes for the production and marketing of the FPO produce	3	91430.00

**Detailed report of each project/programme separately : Annexure II**

## 8. Success stories

### A Groundnut TCGS 1694 – A Groundbreaking groundnut

**Farmer Detail** : Mr. A. Harikrishnan  
S/o Annamalai  
Mattadhari village, West Arni.  
Thiruvannamalai district.

#### Situation analysis/Problem statement

Mr. A. Harikrishnan S/o Annamalai aged 35 from Mattadhari village of West Arni block is holding one hectare. He has been adopting local varieties in one hectare and got poor yield. The crop was also affected by high incidence of pest and diseases so, he experienced more expenditure in cost of cultivation of groundnut. His net income is also not upto the expected level. He didn't know the improved varieties and new technologies and he had no idea about use of micronutrients.

#### Plan, Implement and Support:

He had attended four training programme on Groundnut which was organized by the KVK. Training covers Integrated Crop Management practices in Groundnut. He was also trained



for groundnut seed production and frequent farm advisory services were also offered to him. The new TCGS 1694 Groundnut variety has been introduced to the farmer in the year 2024 in Rabi season with improved practices. It was Spanish bunch type. The oil content of the variety is 50%. It has 75% shelling percentage. It is tolerant to late leaf spot, rust and drought.

The farmer was also taught about the recent practices like season, varieties, seed treatment, Field preparation, plant population maintenance, use of micronutrient, soil health based nutrition, weed and irrigation management and harvesting. With the proper guidance of KVK, he got an idea to improve the yield and income by reducing the cost of inputs.

#### Intervention Technology

The farmer adopted the following improved practices.

- Seed treatment with biofertilizers like *Rhizobium*, *Phosphobacteria*
- Usage of Improved varieties
- Adopting the use of TNAU Groundnut rich

## Output

Following the guidance given by our scientists he started the cultivation of high yielding TCGS 1694 Groundnut variety. The number of pods per plant was higher in TCGS 1694 Groundnut variety *ie.*, 36 nos pods per plant. The yield increased to 24.6 quintals which is 48% higher than local traditional variety and net income raised to **Rs. 115750/-** and he also involved in seed production of groundnut

## Outcome:

By witnessing the economic benefits achieved by this farmer, other farmers interested to cultivate groundnut in their fields and minimized the incidence of late leaf spot, rust and root rot. This resulted the low expenditure on fertilizers and pesticide application. By seeing the profit from the cultivation of TCGS 1694 Groundnut variety many of the farmers show interest to cultivate this variety for seed production purposes. This variety nearly spread to 350 farmers in his locality.

## Impact

By seeing the success of this farmer other farmers from the same village showed interest to cultivate TCGS 1694 Groundnut variety. The variety got spread in 220 ha in his surrounding locality

## B. Nurturing growth: Boosting success through improved cultivation

**Farmer's details** : Mr.K.Rajendran, S/o. Krishnan  
Desur village, Thellar block,  
Thiruvannamalai Dist – 604501  
Mobile No.: +91 9941570284

## Situation analysis/Problem statement

Shri Rajendran, S/o. Krishnan, is a 54-year-old vegetable farmer from Desur village, located in the Thellar block of Thiruvannamalai district. Over the past few years, he has been engaged in the commercial cultivation of vegetables, including brinjal and various greens. An area of 112 acres is under the vegetable cultivation in the village. However, the farmers are facing the challenges related to nutrient deficiency, pests, diseases, and product quality. As a result of these issues, the income generated by the vegetable farmers has been unsatisfactory.



## Plan, implementation of activities and support by KVK

Considering the problems faced by the farmers in the region, the KVK has conducted Training programme and other extension activities to address the issues. He has participated in three training sessions focused on Integrated Crop Management (ICM), Integrated Nutrient Management (INM), and Integrated Pest Management (IPM) specifically for vegetable crops. Additionally, he visited several demonstration units at the Indian Institute of Horticulture Research in Bangalore, Tamil Nadu Agricultural University in Coimbatore and interacted with eminent scientists on vegetable cultivation. The KVK recommended a specialized micronutrient mixture for vegetables named as Vegetable special to mitigate nutrient deficiencies and provided method demonstrations on its application, seed treatment with bio-control agents and the use of traps for pest management. Through the effective guidance of KVK, he developed an idea to enhance both yield and income by minimizing input costs.

### Intervention Technology

The farmer adopted the following improved practices and technology.

- Foliar spray application of Vegetable special micro nutrient mixture.
- Treatment of seeds with biological control agents such as *Bacillus subtilis* and *Trichoderma viride*.
- Utilization of pheromone trap and yellow sticky trap.
- Adoption of an Integrated Plant Nutrition System, focusing primarily on fertigation, the application of vermicompost and neem cake to enhance the soil's fertility conditions.



### Output

As a result of the various interventions and technological support by the KVK Thiruvannamalai, he succeeded in vegetable cultivation. He cultivated brinjal on one acre, resulting in a yield of 13.5 tons per hectare and a net income of Rs. 80,000. Additionally, he earned Rs. 12,000 from the cultivation of greens. Furthermore, he has shared his experiences with other farmers during various training programs organized by KVK and Department of Horticulture.



### Outcome

The economic advantages realized by Mr. Rajendran from Desur village have lead to a considerable dissemination of technologies within the area. Currently, 160 farmers are implementing these technologies across 205 acres of land. This represents a notable accomplishment for KVK.

## Impact

The extent of land dedicated to vegetable farming in Desur village, located in Thellar block, has been growing significantly each year by the quick economic returns. In response to the farmers' interest, the State Department of Horticulture has been providing assistance by supplying various agricultural inputs, as well as drip and sprinkler irrigation systems at subsidized prices.

### C. Sweet Success – Generating Wealth from Nature's Nectar.

**Farmer's details** : **Mr.K.Thirupathy**  
Thombareddy village,  
Jamunamarathur Block,  
Thiruvannamalai Dist – 635703  
Mobile No.: +91 8098905509

#### Situation analysis/ Problem statement:

Thiruvannamalai district is recognized for its diverse agricultural production, including crops such as paddy, pulses, groundnuts, brinjal, chillies, gourds, tomatoes, bananas, coconuts and millets cultivated over significant areas.



Mr. K. Thirupathy S/o Kuppan, is an innovative farmer residing in Thombareddy village in the Jamunamarathur block of Thiruvannamalai district. He manages one-acre farm but faces challenges such as low yields and income due to factors like mono cropping, high agricultural input costs, labor shortages, insufficient rainfall, lack of advanced farming technologies and indiscriminate application of chemical pesticides on natural pollinators. To enhance his earnings through various agricultural ventures, he aims to establish an integrated farming system model on his property. In light of these challenges, he sought assistance from the KVK to explore agricultural business opportunities.

#### Plan, implementation of activities and support by KVK

As a forward-thinking and passionate young farmer, KVK identified him as one of the contact farmers in the Jamunamarathur region due to his active participation in various KVK initiatives. He engaged in multiple on-campus and off-campus training sessions focused on beekeeping, demonstrating a keen interest in the technologies associated with this field. The KVK also



organized practical training sessions in his village, covering topics such as beekeeping, honey value addition, and the production of beehives. Additionally, KVK facilitated his visit to TNAU Coimbatore and the Manjary honey farm in Erode as part of the NABARD-sponsored CAT training program.

### **Output**

The diversified interventions and technological assistance provided by KVK Thiruvannamalai, he has successfully engaged in beekeeping and established twenty five honey bee rearing units on his farm. This endeavor has resulted in an additional annual income of Rs. 55,240.00 along with a 13.52% increase in crop yield. Furthermore, he has been appointed as a master trainer to impart his knowledge and experience to other farmers during various training programs organized by KVK and other partners.

### **Outcome**

The economic advantages associated with beekeeping have attracted the interest of additional farmers in the region. Currently, beekeeping practices have been adopted by 581 farmers in the district, facilitated by the State Department of Horticulture, ATMA and various non-governmental organizations. This development stands as a notable accomplishment of KVK.

### **Impact**

The demand for pure honey has been rising significantly each year, attributed to its high nutritional value and strong market demand. Honeybees play a crucial role in cross-pollination, which enhances crop yields. The adoption of beekeeping practices in the Thiruvannamalai district has seen a notable increase and crop yields are anticipated to rise in the coming years.

## **D. Transforming Lives: The Role of Backyard Poultry in Livelihood Security**

### **Domain of the study / Rationale**

Backyard Poultry is easy to manage and generates good income. Traditionally, backyard poultry comprising mainly native breeds adapted well to the local and varying climatic conditions, accounted for 70 per cent of meat and egg production in the country. In over three decades, poultry in India has moved rapidly from the backyard to intensive commercial production. Modern poultry is one of the fastest growing industries across the world. However, it often involves large-scale commercially produced crossbreeds. Although large-scale intensive commercial poultry production has tremendously increased the availability of meat and eggs in the country, it has also had serious health and environmental consequences.



### **Activities implemented by KVK**

ICAR Krishi Vigyan Kendra, Thiruvannamalai District was identified Poonaspadi and Arasankuppam villages in Thiruvannamalai District to uplift the living standard of unprivileged people. The KVK was randomly selected 50 SC Farmers in both the villages and given training

on Backyard poultry farming with objective of improving the income and nutrition of family. The interventions include improvement to production systems, brooding management, vaccination and healthcare services. KVK had distributed 1250 day old chicks at the rate of 25 Nos per family.

### **Output of the intervention**

As a result of technological intervention by the KVK, each family have been obtained good revenue from meat and eggs apart from the own consumption. Backyard poultry rearing with Aseel chicks with 20+5 numbers along with improved rearing technologies of poultry farmer could able to get Rs. 42,000.00/year per family.

### **Outcome and impact**

The households of the village rearing backyard poultry, the traditional culture of rearing native chicken breeds has come alive at Poonaspadi and Arasankuppam villages. The family members are able to consume eggs and meat produced from their backyard, on a regular basis. The chicken and eggs produced in the backyards found to be healthy compared to commercially available chicken, thus ensuring better health to the families. In Poonaspadi and Arasankuppam villages, a total of 106 farm families have been rearing Desi birds under backyard condition. More than 250 farm families are rearing Desi bird under backyard condition in and around the programme are after seeing the results.

## **E. Harnessing the Potential of Traditional Rice and Millet for Entrepreneurship**

**Name of the Farmer :** Mrs. Manimozhi,  
W/o Perumal,  
Soraputhur village & Post,  
Thellar Block, Thiruvannamalai – 604 406.

### **Situation analysis/Problem statement:**

Mrs.Manimozhi W/o Mr.Perumal aged 50 is a Paddy farmer belongs to backward community from Vandavasi Taluk of Thiruvannamalai District. She owned six acres of land. Traditional rice has been cultivated on commercial scale in 4 acre of land and the remaining 2 acres has been allotted for groundnut, cowpea and sesame cultivation to meet out her family's food requirement.

She depends mainly on paddy and groundnut for her family's income. But, she couldn't satisfy with the irregular income. The other rural poor in neighboring village people are regularly earn high income by committing agriculture and other related works.



### **Plan, Implement and Support:**

Mrs.Manimozhi had shown very good interest on KVK programmes and technologies. She is an active Director in Aramudhu Farmers Producer Company, Vandavasi maintain by KVK. She is selling her farm produce directly to needy people and also by her producer Company in her locality. In addition, she participated in the twenty days trainings conducted by

KVK on Livelihood Improvement of Rural Women through training on Novel Products from Millets, Traditional Rice, Groundnut based products, Milk and Herbs For SHG members organized by KVK, sponsored by NABARD Since May 2024. After completion of trainings, she started collecting all the information through SMS – Home Science and finally she has decided to start millet and traditional rice based value added products production unit on her own as trial basis.

### **Intervention technology**

After the all arrangements made by her, she started the production unit for millet based value added products at her home during August. Initially she started preparing millet based instant mix viz., Health mix, pongal mix, Kali mix, Murukku Mix, Chappathi mix, millet soup mix. She sold her products at nearest villages of Vandavasi and Thellar. In this situation her products received higher interests among the consumers in terms of taste and quality. She named her production unit as Dhanushree Organic Foods.

After receiving consumer preferences and interests, she was planning to include millet and traditional rice based snacks. She standardizes all her products by use of quality raw materials during processing, preparation under hygienic condition, packing and labeling. Now she is registered her products under MSME also. This unit is entirely maintained by her family members.



### **Output**

KVK scientists have been continuously motivating her for the expansion of production unit by visiting her frequently. Initially she was facing the problems on purchase of packing materials, essence, obtain FSSAI license, labeling and marketing. The KVK provided technical support for all types of sourcing materials for packing, licensing and branding directly to her. Moreover guidance and linkage to suppliers, traders and licensing authorities was made to her directly.

### **Outcome**

By hearing and seeing the economic return obtained by Mrs. Manimozhi, other neighbours and locality have started to value added products production units. At present there are two units were established and functioning effectively in Thellar Block and it is expected more units will be established in the forthcoming years.

### **Impact**

Mrs. Manimozhi is regularly supply more than 15 varieties of value added products viz., Health mix, pongal mix, Kali mix, Murukku Mix, Chappathi mix, millet soup mix, instant chutney mix and pickle to nearby area local shops and within Tamil Nadu by Whatsapp group. The price of one Kilo gram products average price is Rs.450/-. The average production capacity

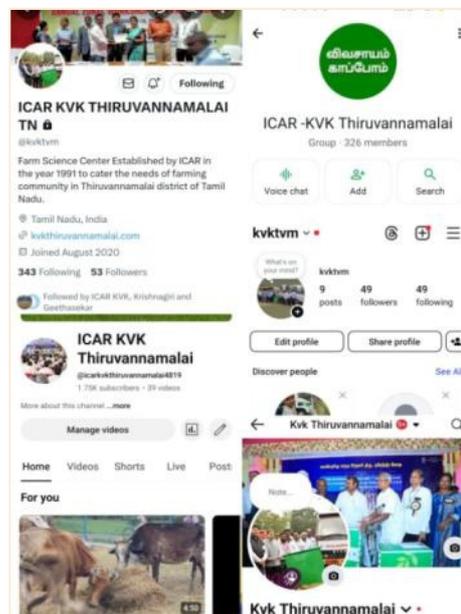
of the unit is 200-230 kg per month. She is earning an amount Rs.55200/- per month as net income from her unit.

## 9. Details of innovative methodology, innovative technology and transfer of Technology developed and used during the year by the KVK

### Maximizing Social Media for Effective Technology Transfer

Krishi Vigyan Kendra actively manages eight WhatsApp groups, along with strong presences on Instagram, Facebook, Twitter, and a dedicated YouTube channel, successfully engages over 8,000 farmers.

KVK team of experts provides immediate responses to all queries in the WhatsApp groups, ensuring that our farmers receive timely and accurate information. Moreover, KVK takes pride in regularly producing high-quality technology videos that are shared on our YouTube channel. To date, we have uploaded 39 videos, which have already amassed 76236 views.



## 10. Details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development.

S. No	Crop	ITK Practiced	Purpose
1	Paddy	Keeping Palmyra leaves around the paddy field.	To protect the paddy plants from the storks and rats.
2		Tying of Compact Disc (CD) around the paddy field.	To control damage by the birds
3		Spraying of plain water	To control thrips.
4		Spraying of Kerosene @ 1 litre mixed with soap and 1 litre of water	To control leaf folder and stem borer
5		Installation of thermocol blocks as bird perches in paddy field.	To avoid the bird problem in the early stage.
6	Redgram	Coating the redgram seed with red soil.	To avoid the incidence of Storage pests
7	Field and Horticultural crops	Spreading of hairs around the bunds.	For control of wild Boar damage.
8	Vegetables & Millets	Spraying of garlic extract and Kerosene (1 kg Garlic, 200 ml Kerosene and 100 litres water)	To control fruit borers

9		Millet grains with neem leaves	To avoid storage pest damage.
10		Planting of seeds during no moon day	For the better germination of seeds.
11		Spraying of Cow Urine	To avoid pest & disease problem and better growth of the plants
12	Chilli	Scary thermocol device to be planted in the field.	To prevent wild boar and bird issues.

### **Photographs for ITK Technologies**



**Tying of rope and plastic covers in paddy field**



**Soaking the paddy seeds in diluted cow's urine before sowing, to reduce the incidence of leaf spot and blast in paddy**

### 11. Impact of KVK activities

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Introduction of Barnyard millet ATL-1	190	75	43860.00	59325.00
Introduction of Paddy variety CO 57	100	65	116320.00	138160.00
Precision farming in Solanaceous vegetables	441	74	48930.00	95200.00
Integrated crop management in cucurbitaceous vegetables	706	85	65400.00	99200.00
Foliar Nutrition in vegetables	1753	92	521600.00	798530.00
Integrated Nutrient Management in Banana	542	69	211500.00	272300.00
Integrated Pest and Disease Management in paddy	3524	52	101578.00	113584.00
Management of maize fall army worm (FAW)	866	65	72785.00	95782.00
Integrated Panama wilt management in Banana	396	55	<b>641674.00</b>	722277.00
Integrated Pest and Disease Management in Brinjal	245	60	188650.00	291675.00
Mushroom production	120	51	1200.00/ Month	3600.00/ Month
Beekeeping technologies	356	39	17600.00/ Year	32800.00/ year
Poultry farming under backyard condition	598	68	11426.00	42378.00
Fruits and vegetable preservation	645	41	6,800.00/ Month	24,000.00/ Month
Value addition in milk	376	27	9,300.00/ Month	25,500.00/ Month
Preparation Instant mix	332	42	7,000.00/ Month	27,500.00 /Month

**12. Impact of five select technologies assessed/demonstrated/popularized by the KVK in the district (in QRT format)**

Sl. No.	Name of specific technology/skill transferred	Source of technology	No. of farmers	Extent (ha)	Increase in net return Rs/ha	Economic Impact /benefit (Rs) (5X6)	KVK Intervention OFTs/FLDs/ Trainings	Convergence /Partners involved in up scaling of technology	Remarks
1	2	3	4	5	6	7	8	9	10
1	Direct Seeded Rice technology	TNAU	76112	48920	29120	1,42,45,50,400/-	Nine Front Line Demonstration conducted covering 36ha and 75 farmers. Organized 47 trainings covering 486 farmers.	State Department of Agriculture, Thiruvannamalai	Yield increased 23.80%
2	Integrated pest and disease management in paddy	TNAU	3524	2117	16380	3,46,76,460	Conducted Nine front line demonstration covering 90 farmers and organized 39 training programmes covering 652 famers	State Department of Agriculture and ATMA, Thiruvannamalai	Yield increased 11.82 %
3	Demonstration on Blackgram Variety VBN 11	TNAU	4140	3152	23210	7,31,57,920	Four Front Line Demonstration conducted covering 95 ha and 230 farmers. Organized 35 trainings covering 720 farmers.	State Department of Agriculture, Thiruvannamalai	Higher yield - 26.40 %

4	Demonstration on Groundnut variety TCGS 1694	ANGRAU	5560	3650	15730	35,514,500	Four on farm trials conducted covering 80 ha and 200 farmers. Organized 30 trainings covering 650 farmers.	State Department of Agriculture, Thiruvannamalai	Higher yield - 13 %
5	Demonstration of MDU 1 Ridge gourd	TNAU	523	210	72500.00	1,52,25,000	One On Farm Testing and One Front Line Demonstrations conducted covering 6 ha and 15 farmers. Organized 8 trainings covering 164 farmers.	State Department of Horticulture, Thiruvannamalai	Yield increased by 19.33%
5	Demonstration of improved variety VRM(Br)2	TNAU	486	263	92600.00	2,18,53,600	Two Front Line Demonstrations conducted covering 8 ha and 20 farmers. Organized 9 trainings covering 194 farmers.	State Department of Horticulture, Thiruvannamalai	Yield increased by 21.68%

### 13. Box item



*“Beekeeping is not only a source of income but also a vital input for sustainable agriculture.*

*Honeybee pollination significantly increases crop yields, with some crops experiencing yield improvements of up to 23.45%” Said Mr. Thirupathi, Jamunamarathur.*

*“Poultry farming offers a practical solution for family members, like my grandpa, who are unable to engage in other activities. It's a dependable source of income, functioning much like an ATM, as birds and eggs can be sold on demand for immediate financial needs” Said Geetha.*



*“The vegetable special drives substantial economic benefits, produces premium-quality fruits, and engenders happiness, as illustrated by the smiles it inspires.”” said Rajendran, Desur village.*



*“Dealing with Yellow Mosaic Virus disease in Blackgram had been exhausting, but the KVK LBG 884 variety brought a game-changing solution. This variety demonstrated strong resistance to the disease and resulted in a remarkable 41.40% increase in yield. Additionally, it helped reduce chemical costs, leading to significantly higher economic returns” said by Murugan, Siruveliyallur village.*



*“KVK's guidance has been instrumental in transforming my vision into reality, and I started my own business in traditional rice and millet value addition, I am truly thankful.” said Manimozhi.*



*Not like the local finger millet variety, ATL 1 contributes more in yield and synchronized maturity. It increases the yield upto 18% said Karthikeyan, Mottur.*



*Nutrigarden enhances our daily consumption of high-quality vegetables while boosting stamina at an affordable price, Said by Kalaiyarasi, Poonaspadi.*



*The Integrated farming system model adopted with the help of KVK has given sustainable income round the year, and soil health also improved said Manivannan, Sathupperipalayam.*



## **14. Report on entrepreneurship development programmes**

### **Livelihood enhancement through entrepreneurship development for the SHG Women**

#### **Introduction**

Groundnut and millets are significant crops grown in the Thiruvannamalai district, covering an area of 71,014 hectares. Many farmers in this region lack economic empowerment and do not prioritize entrepreneurial activities. The presence of small-scale industries among the rural population in Thiruvannamalai is minimal. To enhance the economic status of rural women, both state and central governments have initiated various development programs. Self-employment serves as a viable alternative for their economic empowerment.

#### **Implementation**

In light of this, the ICAR Krishi Vigyan Kendra in Thiruvannamalai, in collaboration with NABARD has implemented the Livelihood Enterprises Development program for 60 women from Self-Help Groups (SHGs) in Thellar block. These women received 20 days of training focused on creating value-added products from groundnut, millets and traditional rice, which included practical demonstrations. Additionally, KVK offered training in groundnut packaging, branding, labeling and marketing to motivate participants to effectively utilize the available resources. A Common Facility Centre has also been established, which is entirely managed by the members of the women SHGs.

#### **Outcome**

The SHG members have consistently utilized the services provided by the unit, successfully producing 3,000 liters of groundnut oil each month. They have been selling their products in the domestic market in addition to their personal consumption. On average, the SHG members have generated a net income of Rs. 62,000 per month.

## **15. One case of successful technology application and dissemination**

### **Backyard Poultry Farming - for the livelihood improvement and nutritional well-being of underprivileged families.**

#### **Situation analysis/Problem statement**

Backyard Poultry is easy to manage and generates good income. Traditionally, backyard poultry comprising mainly the native breeds adapted well to the local and varying climatic conditions, accounted for 70 per cent of meat and egg production in the country. In over three decades, poultry in India has moved rapidly from the backyard to intensive commercial production. Modern poultry is one of the fastest growing industries across the world. However, it often involves large-scale commercially produced crossbreeds. Although large-scale intensive commercial poultry production has tremendously increased the availability of meat and eggs in the country, it has also had serious health and environmental consequences.

The small-scale, often free ranging, backyard poultry is still the widespread animal production system in India. Backyard poultry rearing has tremendous potential and is ideal to augment the income and nutrition of small and marginal farmers. It could be promoted either commercially or as part of an integrated model involving small and marginal farmers across the country, especially in the rainfed areas.

### **Plan, Implement and Support**

ICAR Krishi Vigyan Kendra, Thiruvannamalai District was identified Mattathari village in Arni block and Karanthai village in Vembakkam block of Thiruvannamalai District. The KVK was randomly selected 50 SC Farmers in both the villages and given training on Backyard poultry farming with objective of improving the income and nutrition of family. The interventions include improvement to production systems, brooding management, vaccination and healthcare services,

### **Output**

All the households of the village rearing backyard poultry, the traditional culture of rearing native chicken breeds has come alive at Mattathari and Karanthai villages. The family members are able to consume eggs and meat produced from their backyard, on a regular basis. Also, the chicken and eggs, produced in the backyards are healthy compared to commercially produced

### **Outcome**

In the Thiruvannamalai district, 398 farming families are engaged in the rearing of Desi birds in backyard settings. Overall, more than 1,050 farmers are raising Aseel Desi birds under similar conditions. Impact The Aseel chicken produces dark brown eggs with a robust shell, making them easy to market. Family members who are unable to participate in other types of work, such as elderly relatives or children, can manage the poultry farming. This practice serves as a financial resource, as birds and eggs can be sold at any time to meet the family's cash needs.

## **16. Linkages**

<b>Sl.No</b>	<b>Name of organization</b>	<b>Nature of linkage</b>
1	State Dept. of Agriculture	Trainings and Demonstrations in various blocks under ATMA project. Conduction of field days under FLD, Farm Advisory and diagnostic Services.
2	State Dept. of Horticulture	
3	Department of Agri Business and Agri Marketing.	Trainings, FPO consortium business advisories, BOD and CEOs trainings and Demonstrations.
4	State Department of Animal husbandry	Animal Health camp, trainings & Advisory services.
5	NABARD	Establishment of Farmer Producer company, CAT and LEDP training programmes.
6	State department of Agriculture, Kanchipuram	Training, diagnostic visits & Lectures.

7	Tamil Nadu Vazhnthu Kattuvom Project	Credit linkages to FPO and capacity building trainings to farmers and Community Resource persons.
8	Integrated Child Development Scheme (ICDS)	Capacity building programmes to farm women and Anganwadi workers and establishment of nutrigarden.
9	MahalirThittam	Training to Krishi Sakhi on natural farming
10	ICICI foundation	Pandhal Vegetables cultivation, quality Inputs supply, Animal health camps, Training to the farmers, technical convergence and other extension activities.
11	Central Institute for Fisheries Technology, Cochin	Common facility centre for fishermen community, input supply and value added trainings in fish and fishery products.
12	Khadi and Village Industries commision	Capacity building training for SHGs, Common Facility Centre and input supply
13	SST Trust	Farmer training, awareness programme, field visit, IFS, livelihood promotional activities for tribal familes and promotion of organic farming.
14	State Water Resources Management Agency	Trainings and Extension Activity
15	Irrigation Management Training Institute, Trichy	
16	Hand in Hand	Training and Awareness programme
17	The Fertilizers and Chemicals Travancore Ltd (FACT)	Training and awareness programme
18	National Fertilizers Limited	

## 17. Awards and Recognitions

- Shri. V.Suresh, Senior Scientist and Head awarded the Peak Performer award by Aram Seyya Virumbu Foundation for outstanding coordination of KVK activities to support farmers in the district in collaboration with various stakeholders.
- Shri. V.Suresh, Senior Scientist and Head awarded Karma Veerar Kamarajar Daimond award by People Social Protection Association for the best extension Service.
- Shri. S.Ramesh, Chairman, KVK received the certificate of appreciation for outstanding coordination to support tribal communities in the district in collaboration with various stakeholders by TVS SST Trust
- Shri. P.Vijayakumar, Subject Matter Specialist (Horticulture) received Best performance award for the extension service in the field of horticulture during Independence Day celebration from the District Collector.
- Shri. O.Sekar, Programme Assistant (Computer) received Best performance award for disseminating agri and related advisory services through mobile and social media during Independence Day celebration from the District Collector



## 18. Important Visitors to KVKs during 2023



**Honourable Union Minister Shri. L. Murugan participated in the Kisan Samman Nidhi programme**



**Shri. Udham Singh Gautam, DDG, ICAR participated in the millet food festival**



**Shri. D. Baskara Pandian, IAS, District Collector participated in the Kisan Mela at the KVK campus**

**Annexure - I****I. SALIENT RECOMMENDATIONS OF THE SAC MEMBERS**

- ✿ **Mr. S. Ramesh**, President of TNBRD, suggested that the KVK should promote fodder production and marketing among farmers. He also emphasized the need for KVK to focus on soil and water conservation.
- ✿ **Dr. A. Bhaskaran**, Principal Scientist, ICAR ATARI, Zone X, Hyderabad, recommended to identify the reasons for production losses in paddy, groundnut, blackgram, sugarcane, milk and work on mitigating these issues. He mentioned that KVK should fill the vacant position of Senior Scientist and Head and increase the revolving fund in the upcoming year. He also suggested that the KVK should document success stories showcasing the technology interventions it has implemented and broadcast them on radio and television for the wider spread.
- ✿ **Dr. A. Thirumurugan**, Programme Coordinator, KVK Vellore stressed the importance of documenting the impacts of training conducted by KVK. He suggested conducting demonstrations on fine grain paddy varieties and displays all departmental schemes on the KVK premises.
- ✿ **Dr. M. Kumaran**, Principal Scientist, CIBA, Chennai, recommended that KVK should promote fish farming in the district and publicize the success stories of farmers through mass media.
- ✿ **Mr. S. Sundaram**, DD Agriculture (GOI) Thiruvannamalai proposed to promote the use of groundnut seed drill and pod stripper among farmers and conduct awareness sessions on drone applications in the district.
- ✿ **Dr. M. Vaithiyalingan**, Professor and Head, CEM, Thiruvannamalai suggested to utilize the services of CEM experts and organize an exposure visit to the Community Science College and Research Institute in Madurai, as well as to the Centre for Post Harvest Technology and Department of Agribusiness Development at TNAU Coimbatore. KVK should also demonstrate the Finger millet ATL-2 variety in the district.
- ✿ **Mr. M. Vijay Neehar**, DDM, NABARD, Thiruvannamalai recommended to focus on branding and marketing of value-added products and pursue eco-tourism development at Jawadhu hills.
- ✿ **Mrs. S. Shemila Jeyanthi**, Deputy Director, Department of Agribusiness and Agrimarketing, Thiruvannamalai suggested creating awareness on millet marketing among millet growers. She also suggested including directors CEO's of FPOs in the KVK buy & selling group.

- ✿ **Dr. S. Babu**, Associate Professor, AC&RI, TNAU, Vazhavachanur, recommended that KVK should conduct training on nutrient management in paddy and demonstrate the use of chisel ploughs among farmers.
- ✿ **Mrs. P. Deivasigamani**, ADH, Department of Horticulture and Plantation Crops, Anakkavur suggested to produce and supply vegetable seedlings to farmers and conduct training on off-season production of horticultural crops. She also recommended conducting Integrated Pest Management (IPM) training for chillies, mangoes, and combating the coconut rugose spiralling whitefly.
- ✿ **Dr. R. Durairajan**, Associate Professor, VUTRC, Melmaruvathur, recommended to promote the use of ethanoveterinary practices among farmers and the 10-cent model fodder production technology. He also suggested utilizing TRPVD technologies in KVK programs and publishing the success stories of farmers through mass media.
- ✿ **Mr. M. Palani**, Assistant Engineer, Department of Agri Engineering, Anakkavur recommended that KVK to demonstrate groundnut diggers and pod strippers. He also suggested conducting water budgeting for the effective utilisation of available water.
- ✿ **Mr. S. Ganapathy**, Inspector of Fisheries and Fisherman Welfare, Thiruvannamalai proposed that KVK should conduct off-campus training programs on fish value addition for fishermen communities.
- ✿ **Mr. K. Dhanapal**, District Industrial Centre, Thiruvannamalai suggested that KVK to explain the schemes of DIC in its programs.
- ✿ **Mr. P. Mani**, Junior Silk Inspector for Sericulture, Thiruvannamalai suggested focus on training and awareness programs for mulberry production and silkworm rearing.
- ✿ **Mr. K. V. Palani**, a progressive farmer from Kalambur, Polur, Thiruvannamalai recommended to increase KVK staff strength for the effective implementation of its activities.
- ✿ **Mr. M. Velayutham**, a progressive farmer from Brammadesam, Vembakkam, Thiruvannamalai suggested to promote natural and organic farming in the district.
- ✿ **Mr. K. Karthikeyan**, an agripreneur from Mottur, Kalasapakkam, Thiruvannamalai proposed to demonstrate newly released crop varieties in the district.
- ✿ **Mr. P. Manimozhi**, a farm woman from Sorappathur, Thiruvannamalai recommended that KVK should conduct training on millet value addition and help develop entrepreneurs.

## II. List of members participated in the SAC meeting

Sl.No.	Name and Address	Affiliation
1.	<b>Mr. S. Ramesh</b> President, Tamil Nadu Board of Rural Development, Chennai.	Chairperson
2.	<b>Dr.A. Bhaskaran</b> Principal Scientist, ICAR-ATARI, Zone X, Hyderabad.	Member
3.	<b>Dr.A. Thirumurugan</b> Programme Coordinantor, ICAR KVK, Tamil Nadu Agricultural University, Vellore.	Member
4.	<b>Dr. M. Kumaran</b> Principal Scientist, ICAR, CIBA, Chennai.	Member
5.	<b>Mr.S. Sundaram</b> Deputy Director of Agriculture(GoI), Thiruvannamalai.	Member
6.	<b>Dr.S. Babu</b> Associate Professor, Agriculture College and Research Institute, TNAU, Vazhavachanur, Thiruvannamalai.	Member
7.	<b>Dr. R. Durairajan</b> Associate Professor, Department of Animal Husbandry, Thiruvannamalai.	Member
8.	<b>Dr.M. Vaithiyalingan</b> Professor and Head, Centre for Excellence in Millets, Athiyandal, Thiruvannamalai.	Member
9.	<b>Mrs. S. Shemila Jeyanthy,</b> Deputy Director, Department of Agribusiness and Agrimarketing, Thiruvannamalai.	Member
10.	<b>Mr.M. Vijay Neehar</b> District Development Manager, NABARD, Chennai Metro Cluster.	Member
11.	<b>Mr. M. Palani</b> Assistant Engineer, Department of Agriculture Engineering, Thiruvannamalai.	Member
12.	<b>Mrs. P. Deivasigamani</b> Assistant Director of Horticulture, Anakavur.	Member
13.	<b>Dr. J. Karthik</b> Veterinary Assistant Surgeon, Veterinary Dispensary, Chithathur, Vembakkam Taluk.	Member
14.	<b>Mr.K. Dhanapal</b> Assistant Director, District Industrial Centre, Thiruvannamalai.	Member
15.	<b>Mr.S. Ganapathi</b> Inspector of Fisheries, Fisheries and Fisherman Welfare, Vellore.	Member
16.	<b>Mr. P. Mani,</b> Junior Silk Inspector, Department of Sericulture, Thiruvannamalai.	Member

<b>Sl.No.</b>	<b>Name and Address</b>	<b>Affiliation</b>
17.	<b>Mrs.D. Mageswari</b> Rural Welfare Officer, Social Welfare Department, Vembakkam.	Member
18.	<b>Mr.N. Ravichandran,</b> District Correspondent, Doordarsan, Thiruvannamalai.	Member
19.	<b>Mr.K.V. Palani</b> S/o.Vellai, Kalambur, Polur Taluk, Thiruvannamalai.	Member (Farmer)
20.	<b>Mr.M. Velayutham</b> S/o.Munusamy, Brammadesam, Vembakkam Taluk,Thiruvannamalai.	Member (Farmer)
21.	<b>Mr.K. Karthikeyan</b> S/o. Kannan, Mottur, Kalasapakkam Taluk, Thiruvannamalai.	Member (Agripreneur)
22.	<b>Mrs.N. Meenatchi</b> W/o. Nandakumar, Chinnasenkadu, Cheyyar Taluk, Thiruvannamalai.	Member (Fam women)
23.	<b>Mrs.P.Manimozhi</b> W/o.Perumal, Sorappathur village, Thellar block, Thiruvannamalai.	Member (Fam women)
24.	<b>Mrs.S. Bhuvaneswari</b> W/o.Selvathambi, Chithathur, Vembakkam taluk, Thiruvannamalai.	Member (SHG)
25.	<b>Mr.V. Suresh</b> Senior Scientist and Head, ICAR KVK, Thiruvannamalai.	Member Secretary

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**Annexure II****Programme – 1****Secondary agriculture, post harvest technologies, Proper harvesting techniques, grading and packaging, value addition (19.02.2024 – 24.02.2024)**

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**Introduction**

The skill training of rural youth (STRY) on Secondary agriculture, Post harvest technologies, Proper harvesting techniques, grading and packaging, value addition and processing was conducted at the ICAR Krishi Vigyan Kendra, Kilnelli, Thiruvannamalai district from 19<sup>th</sup> February 2024 to 24<sup>th</sup> February 2024 under the financial assistance of ATMA, Thiruvannamalai.

The inaugural event of the programme was held on 19<sup>th</sup> February 2024 at 10.45 am at the KVK premises. Shri. S. Ramesh, Chairman, Tamil Nadu Board of Rural Development and Shri.C.Harakumar, Joint Director of Agriculture, Thiruvannamalai participated as chief guest and inaugurated the training programme. Mr. V. Suresh, Senior Scientists and Head, ICAR KVK, Kilnelli addressed the gathering and briefed about the importance of secondary agriculture and post harvest technologies. Dr.M.R.Ramanathan, Deputy Director, Farmer Training Center and Mr. J.Soundhar, Agriculture Officer were also participated and narrated about the skill trainings being conducted by ATMA with involvement of KVK and other stakeholders in the district.

The Subject Matter Specialists from ICAR Krishi Vigyan Kendra, Thiruvannamalai have participated as resource person in the training programme and handled various technical sessions during the programme.

The valedictory session of the programme was held on 24<sup>th</sup> February 2024 at 3.30pm, Shri.C.Harakumar, Joint Director of Agriculture, Thiruvannamalai participated as chief guests and distributed the training certificates to all the participants and listened to their feedback.

A total number of 15 farmers from all over Thiruvannamalai district participated and benefited though this STRY residential training programme.

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## Programme – 2

### **Novel Products from Millets, Traditional Rice, Groundnut based products, Milk and Herbals for matured SHGs” in Tiruvannamalai District under Livelihood and Enterprise Development Programme (02.05.2024 – 27.05.2024 and 18.07.2024 – 16.08.2024)**

#### **I. Brief description on training of the value added products**

Training and Demonstration for 20 days for each group in which one day exposure visit to National Institute of Food Technology, Entrepreneurship and Management, Thanjavoor and Madurai Agribusiness Incubation Forum, Madurai. Technical exposure delivered viz., packing, Trademark and cluster Business organization.

- Commercial value added products like instant mix, bakery products and ready to eat products from millets and traditional rice.
- Groundnut value added products like oil, groundnut cake, groundnut chikki, peanut butter.
- High value added products like probiotic products (Yoghurt), flavoured milk (natural and synthetic), homemade paneer (spices and herbals added) and khova from milk.
- Pickles and instant mix from underutilized herbs.

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### **Programme – 3**

#### **Organic cultivator (10.06.2024 –11.07.2024)**

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##### **I. Brief description on Organic cultivator**

KVK Thiruvannamalai conducted one month skill training program on Organic cultivator from 10<sup>th</sup> June 2024 to 11<sup>th</sup> July 2024 covering 25 rural youth sponsored by Agriculture Skill Council of India, New Delhi. The training programme comprehensively addressed the principles and practices of organic farming, emphasizing its significance and benefits. Participants were introduced to the distinctions between organic, chemical, and natural farming, gaining insight into their respective impacts on agriculture and the environment.

The program included the selection of quality seeds and advanced techniques for seed treatment, alongside strategies for soil health management and fertility improvement. Effective methods for composting farm and household waste were covered, as well as the production and application of plant growth promoters and bio-pesticides. Participants also explored organic methods for managing weeds, pests, and diseases, ensuring sustainable crop protection.

The training further dealt into post-harvest management to preserve the quality of organic produce and outlined the procedures for obtaining organic certification to enhance market credibility. Marketing strategies for organic products were also highlighted, equipping trainees with the skills to position their produce in competitive markets.

The outcomes of the program were noteworthy. Participants acquired valuable knowledge and practical expertise in soil health management, crop rotation, and the reduction of external inputs, while promoting the conservation of beneficial organisms. Five farmers from Kilnelli successfully created and utilized low-cost organic inputs.

Furthermore, two trainees initiated the production of essential organic solutions, including fish amino acids, Jeevamrith, 10-leaf extract, neem seed kernel extract, and Amirthapani. These individuals have since emerged as master trainers, disseminating their knowledge and experiences to other farmers through KVK sessions and collaborative training programs, thereby ensuring the sustainable growth and widespread adoption of organic farming practices.

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## **Programme – 4**

### **Seed Production Technology (ATMA) (22.07.2024 – 27.07.2024)**

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#### **Introduction**

The residential skill training of rural youth (STRY) on Seed Production Technology was conducted at the ICAR Krishi Vigyan Kendra, Kilnelli, Thiruvannamalai district from 22<sup>nd</sup> July 2024 to 27<sup>th</sup> July 2024 under the financial assistance of ATMA, Thiruvannamalai.

The inaugural event of the programme was held on 22<sup>nd</sup> July 2024 at 11.00 am at the KVK premises. Shri. S. Kannan, Deputy Director, Farmer Training Center, Thiruvannamalai participated as chief guest and inaugurated the training programme. Mr. V. Suresh, Senior Scientists and Head, ICAR KVK, Kilnelli addressed the gathering and briefed about the importance of seed production technology in agriculture. Shri. G. Gunasekaran, Assistant Director of Seed Certification, were also participated and narrated about the skill trainings being conducted by ATMA with involvement of KVK and other stakeholders in the district.

The Subject Matter Specialists from ICAR Krishi Vigyan Kendra, Thiruvannamalai handled various technical sessions during the programme.

The valedictory session of the programme was held on 27<sup>th</sup> July 2024 at 4.00pm, Shri. S. Ramesh, Chairman, Tamil Nadu Board of Rural Development and Shri. J.Soundhar, Agriculture Officer, Farmer Training Center, Thiruvannamalai participated as chief guests and distributed the training certificates to all the participants and listened to their feedback.

A total number of 15 farmers from all over Thiruvannamalai district participated and benefited though this STRY training programme.

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## Programme – 5

### **Training program on oil processing (KVIC) (02.12.2024 – 06.12.2024)**

#### **Introduction**

A five days skill upgradation training programme on Village Oil Processing Artisans under ABFPI industry vertical of GUY was conducted at the KVK campus from 2<sup>nd</sup> to 6<sup>th</sup> December 2024 with the financial support of Khadi and Village Industries Commission (KVIC), State office, Chennai with the following objectives.

#### **Objectives**

- To enhance the knowledge of oil processing artisans especially artisans' from BPL families.
- To ensure timely availability of quality oil seeds to the artisans by encouraging farming community to involve seed production in oilseeds.
- To improve the productivity of different types of oils and income of artisans.

#### **Training details**

❖	Training period	:	5 days
❖	No. of batches	:	2
❖	Batch size	:	10/Batch

#### **Day wise training details are given below**

#### **DAY – 1 (02.12.24)**

The five days training programme for the selected artisans in Thiruvannamalai district was inaugurated formerly on 02<sup>nd</sup> December 2024, Mr. V. Suresh, Senior Scientist and Head welcomed all the participants and briefed about the importance of such trainings for the livelihood improvement of rural poor. Smt. T. Selvi Karunanidhi, Assistant Director, Chennai explained in detail about the training programme and asked the participants to utilize properly. She also highlighted the various programmes implemented by KVIC, Chennai.

Mrs.T.Margaret, Subject Matter Specialist (Home Science) explained about the scope and opportunities in the oil sector in Thiruvannamalai district. Smt. M Ishwarya, Subject Matter Specialist (Agronomy) and Mr.R.Vijayakumar, Subject Matter Specialist (Horticulture) handled sessions on improved production technologies in oil seeds. Earlier, Mr.P.Narayanan, Subject Matter Specialist (Plant Protection) welcomed all the participants. In the afternoon, Entrepreneurship Competencies and Motivation training involving all artisans were arranged.

**DAY -2 (03.12.24)**

Training on Introduction to different oils, scope of value- added products from groundnut and medicinal benefits of groundnut was handled by Mrs.T.Margaret, Subject Matter Specialist (Home Science) and Mr.P.Narayanan, Subject Matter Specialist (Plant Protection). Demonstration on different varieties suited for extraction of oil from Groundnut was arranged.

**DAY -3 (04.12.24)**

Training on comparing different types of oil extraction methods and its merits and demerits, medicinal benefits of sesame oil and Scope of value- added products of sesame was handled by Mrs.T.Margaret, Subject Matter Specialist (Home Science) and Mr.P.Narayanan, Subject Matter Specialist (Plant Protection). Demonstration on different varieties suited for extraction of oil from sesame was arranged and explained about by products of sesame oil extraction.

**DAY - 4 (05.12.24)**

Training on coconut oil extraction methods, selection of coconut copra for oil extraction, medicinal benefits of coconut oil and scope of coconut value added products was handled by Mrs.T.Margaret, Subject Matter Specialist (Home Science) and Mr.P.Narayanan, Subject Matter Specialist (Plant Protection).

**DAY - 5 (06.12.24)**

The fifth day training programme started with demonstration on different ways to check the purity of oils at home, oil filtering methods, oil packing, branding, labeling and marketing. The training programme concluded with feedback by all the artisans.

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## Programme – 6

### **Training program on Banana fibre extraction and fancy article making (KVIC) (02.12.2024 – 14.12.2024)**

#### **Introduction**

A Twelve days skill upgradation training programme on Banana Fibre Extraction and Fancy Article making under (HMPF&I) Industry Vertical of GVY was conducted at Santhavasal village of Polur Block from 2<sup>nd</sup> to 17<sup>th</sup> December 2024 with the financial support of Khadi and Village Industries Commission (KVIC), State office, Chennai with the following objectives.

#### **Objectives**

- To enhance the knowledge of banana fibre extraction artisans especially artisans' from BPL families.
- To ensure timely availability of quality raw materials to the artisans by encouraging farming community to involve effective utilization of banana waste.
- To improve the productivity of different types of banana fibre based handicrafts products.

#### **Training details**

❖	Training period	:	12 days
❖	No. of batches	:	2
❖	Batch size	:	10/Batch

#### **Day wise training details are given below:**

##### **DAY – 1 (02.12.24)**

The twelve days training programme for the selected artisans in Thiruvannamalai district was inaugurated formally on 02<sup>nd</sup> December 2024, Mr. V. Suresh, Senior Scientist and Head welcomed all the participants and briefed about the importance of such trainings for the livelihood improvement of rural poor. Smt. T. Selvi Karunanidhi, Assistant Director, Chennai explained in detail about the training programme and asked the participants to utilize properly. She also highlighted the various programmes implemented by KVIC, Chennai.

Mrs.T.Margaret, Subject Matter Specialist (Home Science) explained about the scope and opportunities in the banana sector in Thiruvannamalai district. Mr.R.Vijayakumar, Subject Matter Specialist (Horticulture) handled sessions on improved production technologies in banana cultivation methods. Smt. M Ishwarya, Subject Matter Specialist (Agronomy) delivered lecture on effective banana waste utilization methods. Earlier, Mr.P.Narayanan, Subject Matter Specialist (Plant Protection) welcomed all the participants. In the afternoon, Entrepreneurship Competencies and Motivation training involving all artisans were arranged.

**DAY -2 (03.12.24)**

Training on introduction to selection and characters of banana sheaths from different varieties of banana for the fibre extraction was handled by Mr.A.Nagaraj - Master Trainer and Mrs.Jayanthi – Master Trainer. Demonstration on different varieties of banana sheaths separation from fully matured banana pseudostem by manually.

**DAY -3 (04.12.24)**

Training on banana varieties suitable for the fibre extraction by mechanical, manual methods and also processing techniques on bleaching methods, softening methods, drying and dyeing procedures for banana fibres was handled by Master Trainers of Mr.A.Nagaraj and Mrs.Jayanthi.

**DAY - 4 (05.12.24)**

Training on Preservation techniques of banana fibre viz., mechanical, retting methods, twisting methods, strategies for utilizing available resources and business management was handled by Master Trainers of Mr.A.Nagaraj and Mrs.Jayanthi.

**DAY - 5 (06.12.24)**

Demonstration on necessary basic tool kit for and steps involved in preparation of handicrafts items by using banana fibre at initial stage was handled by Master Trainers of Mr.Arul and Mrs.Vatchala.

**DAY - 6 (07.12.24)**

Demonstration on Materials required for box tray preparation, steps involved in box tray preparation and quality parameters involved to avoid rejection from buyers' side was handled by Mr.Arul, Master Trainer and Mrs.Vatchala, Master Trainer.

**DAY - 7 (09.12.24)**

Demonstration on Materials required for storage bin preparation, steps involved in bin preparation, quality parameters involved to avoid rejection from buyers' side and benefit cost ratio calculation was handled by Mr.Arul, Master Trainer and Mrs.Vatchala, Master Trainer.

**DAY - 8 (10.12.24)**

Demonstration on Materials required for Pooja basket preparation, steps involved in pooja basket preparation, quality parameters involved to avoid rejection from buyers' side and benefit cost ratio calculation was handled by Mr.Arul, Master Trainer and Mrs.Vatchala, Master Trainer.

**DAY - 9 (11.12.24)**

Training on Materials required for banana rope tray preparation, steps involved in tray preparation, quality parameters involved to avoid rejection from buyers' side and benefit cost ratio calculation was handled by Mr.A.Nagaraj, Master Trainer and Mrs.Lakshmi, Master Trainer.

**DAY - 10 (12.12.24)**

Training on Materials required for laundry bin and gift bin preparation, steps involved in laundry bin preparation, quality parameters involved to avoid rejection from buyers' side and benefit cost ratio calculation was handled by Master Trainers Mr.A.Nagaraj and Mrs.Lakshmi.

**DAY - 11 (16.12.24)**

Training on Materials required for laundry bin with handle preparation, steps involved in laundry bin handle preparation, quality parameters involved to avoid rejection from buyers' side and benefit cost ratio calculation was handled by Master Trainers Mr.A.Nagaraj and Mrs.Lakshmi.

**DAY - 12 (17.12.24)**

Training on biotransformation of banana pseudostem scotches into valuable product (vermicompost) for additional source of income was handled by Mrs.T.Margaret, Subject Matter Specialist (Home Science) and Mr.P.Narayanan, Subject Matter Specialist (Plant Protection).

Finally this programme ended with feedback collection from all trainees.

## Programme – 7

### **“KfW - NABARD Soil Project - Post Project Sustainability training for VWCs and PFAs” (19.12.2024 – 21.12.2024)**

#### **Introduction**

A three days training programme on Post Project Sustainability training under KfW NABARD soil project for the village watershed committee members and Project Facilitating agencies was conducted at the KVK campus from 19<sup>th</sup> to 21<sup>st</sup> December 2024 with the financial support of NABARD, Chennai. The sessions for the three days programme was formulated based on the needs of VWCs in various districts with the help of KVK, NGOs and other facilitating agencies. Mr. S. Natarajan, CGM (Retd) NABARD have been act as a resource person along with KVK experts throughout the training programmes. Day wise activities of the training programme is given below:

#### **DAY – 1 (19.12.24)**

The formal inaugural event was arranged in the KVK campus in the day1. Mr. S. Natarajan, CGM (Retd) NABARD, Mr. M. Vijay Neehar, DDM, Chennai, Mr. V.Suresh, Senior Scientist and Head Chennai, Mrs. Renugadevi, ADA, Vembakkam and Mr. K. Shanmuganathan, AE, Agri Enginerring were participated. Session on need of the Program and the Expectations, periodical and breakdown maintenance of watershed structures, Maintenance Fund – guidelines and expectations from the VWCs was handled by Mr. S. Natarajan, CGM (Retd) NABARD.

The brief presentation of 31 village watershed committee on the Innovative practices adopted in their watershed, status of functioning VWCs and issues and challenges were made by the participants. A technical lecture by the KVK scientists on soil health management, bioagents like t. Viride, Bacillus subtilis, verticilium lacanii and bio fertilizers like Rhizobium, phosphobacteria, azospirillum, etc . Special session on IFS for the utilisation of available resources and recycle of existing resources for minimising cost on outside inputs. Lecture on Animal components integration like poultry, dairy, fish with crops were also taught to the participants.

#### **DAY -2 (20.12.24)**

As part of the training programme, an exposure visit had been organized involving all the participants. The participants visited Arappedu Watershed project implemented by Hand in

Hand, Kanchipuram. They visited vermicompost production unit, Azolla, Integrated Farming System models, automated weather station, percolation ponds, rainhose system and pandhal vegetable units. Interaction meeting was organized in the afternoon for the participants with existing VWC, women federation and office bearers of Arappedu watershed to analyse strength, weakness, opportunities and threats of the watershed.

### **DAY -3 (21.12.24)**

A third day session on strengthening Farmers Clubs, SHG Federation, water user association, Producer Groups and FPOs, roof top water harvesting, recharging the runoff in habitation area, desilting of water bodies and canals, improving the productivity & improving the adaptability in the context of climate change and wwitch over from low output crops to High value crops was handled by Mr. S. Natarajan, CGM (Retd) NABARD.

VWC forming Village Knowledge Centre – a one stop shop for skill development, exposure visits and conducting trainings, VWCs undertaking tree plantations on an ongoing basis, Livestock based livelihood and VWC Rating Tool also handled in the afternoon. Action plan for 13 watershed project has been submitted to NABARD regional office by Mr. S. Natarajan, CGM (Retd) NABARD. Valedictory session and distribution of certificates for all the participants organized.