ICAR KRISHI VIGYAN KENDRA
Thiruvannamalai, Tamil Nadu.

ANNUAL REPORT
(1st January 2025 to 31st December 2025)

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	:	kvktvmalai91@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

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
	Total	**20.47**

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.	**Staff Quarters**							
	1. SMS quarters	ICAR	1997	390	13,42,350.00			
	2. Assistant Quarters	ICAR	1998	300	9,00,000.00			
4.	**Demonstration Units**							
	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 31.12.2025	Present status
Jeep : TN-97 V 1702	2023	917029/-	67770	Good
MF Tractor &Trailer : TN-25 AX 1058	2012	5,70,000/-	3278.8	Good
Hero Honda : TN–09 AP 4662	2006	36,890/-	119550	Under condemnation
Hero Honda passion plus : TN–25 S 0563	2009	49,476/-	63011	Need to be replaced
Suzuki Motocycle-Access125Drum TN-97-U-1554	2023	69124/-	3653	Good

C) Equipment & AV aids

Sl. No.	Name of the equipment	Year of purchase	Cost (Rs.)	Present status
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	Computer Tables	9/19/2008	0	Good
20	Printer Tables	9/19/2008	0	Good
21	Chairs	9/19/2008	0	Need to be replaced
22	Garden tools	2/18/2010	386	Good
23	Garden hoe	2/18/2010	565	Good
24	Garden fork with steel handle	2/18/2010	291	Good
25	Leaf rabe with handle	2/18/2010	291	Good
26	Hand saw	2/18/2010	239	Good
27	Tope-Round Vessel-10 G-6.700 kg	6/8/2010	1045	Good
28	Tope-Round Vessel-10 G-17.060 kg (52-60")	6/8/2010	2750	Good
29	Kaivadi Big Vegetable stainer-1.400 kg	6/8/2010	532	Good
30	Vegetable Kothu-SS 2.800 kg	6/8/2010	700	Good

31	MS Jarnee-MS-2.060 kg	6/8/2010	134	Good
32	MS Stand-Fire wood Stove stand-16.080 kg	6/8/2010	1045	Good
33	Wet Grinder-Jumbo Junior 6" Plate grinding machine with stand, 1.5 HP single phase motor	7/5/2010	12540	Good
34	Prestige mixture Grinder 3 Jar	2/17/2011	3465	Good
35	Idly Paanai – Small	2/26/2011	495	Good
36	Tabara with lid	2/26/2011	555	Good
37	Iron Kadai	2/26/2011	400	Good
38	Hot pack	2/26/2011	1300	Good
39	Public Address system - Ahuja PS x 1200 Amplifier Speaker	3/11/2011	10860	Need to be replaced
40	Public Address system - Ahuja AW 490 VHL Cordless dual mike	3/11/2011	2513	Need to be replaced
41	Ahuja SRX 50 x T Speaker box	3/11/2011	5587	Good
42	Deep Freezer-110 lit capacity (-200C)-ELANPRO	3/31/2012	31500	Need to be replaced
43	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
44	Vacuum desiccators-Made 3.3 low expansion Borosilicate Glass	3/31/2012	5000	Good
45	Hot air oven-Double walled chamber	3/31/2012	30000	Condemned
46	Laminar Air flow chamber- Clean air model	3/31/2012	57250	Good
47	BOD Incubator - Horizontal - Capacity : 6 Cubic feet.-Lark	3/31/2012	74425	Under condemnation
48	Vortex mixer - 200-2800 RPM variable speed	3/31/2012	3738	Good
49	Thermo hygrometer - Range 0-100 %	3/31/2012	1312	Good
50	Digital moisture meter-VFD Display	3/31/2012	86000	Good
51	Microscope with stand - Lens dia 145 mm,	3/31/2012	5250	Good
52	UV rays chamber - UV lamp long wave length 365nm	3/31/2012	6875	Good
53	Magnetic stirrer-Fitted with Pilot lamps, Variable speed stirring.	3/31/2012	4095	Good
54	Brix meter-0-45 %	3/31/2012	3500	Good
55	Brix meter-45 to 85 %	3/31/2012	3500	Good
56	Phase contrast microscope-Antifungal and anti reflection	3/31/2012	57000	Good
57	Dissection microscope-ISI standard with movable condenser	3/31/2012	1575	Good
58	Water bath - Tank-Double walled chamber with thermo stat	3/31/2012	4725	Good
59	Stereo zoom microscope - Digital imaging systems	3/31/2012	103050	Good
60	10 KVA Wide range single phase electronic servo voltage stabilizer	3/31/2012	21755	Good

61	IFB Microwave oven-20 lits. Capacity	3/31/2012	4500	Good
62	Mridaparikshak-Mini Soil Testing kit	3/31/2017	180600	
23	Ahuja Portable Speaker with Mic	2019	9000	Good
64	Autoclave – 1 Nos	2020	35990	Good
65	Incubator with stabilizer (220 egg capacity)	2021	26941	Good
66	DELL-Desktop System with monitor	2021	85500	Good
67	HP Neverstop Laser MFP printer	2021	19899	Good
68	Shaktiman Rotavator-36 plate	2021	105000	Good
69	Augur	2022	8000	Good
70	Automatic cold press oil extractor-20kg capacity with 3 HP 3 Phase	2023	194700	Good
71	Poultry vaccinator	2023	4999	Good
72	Poultry debeaking machine	2023	1460	Good
73	Groundnut decorticator cum grader machine 400 kg capacity-2HP 3phase	2023	102660	Good
74	Rotary power weeder-Varsha 5HP Hector TCS	2023	81000	Good
75	Systronics µ controller based Flame Photometer with Na, K Filter & Air Compressor	2024	82600	Good
76	Systronics µ controller based EC Meter	2024	40120	Good
77	Systronics µ controller based pH Meter	2024	29500	Good
78	1000 ml Heating mantle 3 Regulator	2025	13570	Good
79	Labman Spectrophotometer – LMSPV 325	2025	69006	Good

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

S.No.	Date	No of Participants	Salient Recommendations
1.	12.03.2025	25	-
2.	11.02.2026	23	-

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

2. DETAILS OF DISTRICT (2025)

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	Kanchipuram	Details given here under:

1. Geographical Position : 12.75139, 79.60604
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	Kalasapakkam	Kalasapakkam	Kalasapakkam	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
Total				**860**	**1067**

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 28.62ºC. Hot during summer (35 - 37ºC). Cool during winder periods (24 - 26ºC). The temperature regime is hyper thermic.
2	**Agro ecological situation:** 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 2024-25. (Season: Kharif, Rabi and Summer)

S. No	Crop	Area (ha)	Production (tonnes)	Productivity (kg/ha)
1	Paddy	185095	689741	3726
2	Cumbu	2217	5388	2430
3	Ragi	1798	7597	4225
4	Samai	4978	6244	1254
5	Maize	4316	23210	5378
6	Blackgram	28030	18462	659
7	Greengram	886	331	374
8	Redgram	2615	3394	1298

S. No	Crop	Area (ha)	Production (tonnes)	Productivity (kg/ha)
9	Horsegram	4266	2371	556
10	Cow pea	1236	802	649
11	Groundnut	52454	105202	2006
12	Gingelly	1265	960	759
13	Coconut	1550	244 in lakhs nut	14311 (Nuts/ha)
14	Sugarcane	11707	1186289	101 (ton/ha)
15	Turmeric	314	1133	3608
16	Tapioca	5611	256177	45656
17	Cotton	624	1395 (lint)	380
18	Tomato	760	14944	19663
19	Brinjal	1805	19090	10576
20	Bhendi	1648	16814	10203
21	Chilli	1850	2752	1488
22	Banana	2737	65202	23822
23	Mango	1679	22170	13204
24	Watermelon	2405	34	14137
25	Onion	84	668	7952
26	Mulberry	1516	420309 (Cocoons in Kg)	277.24
27	Others	11925	-	-
Total Cropped area (ha)		**335374**	-	-

2.5. Weather data (2025)

S. No	Month (2025)	Rainfall (mm)	Temperature ºC		Relative Humidity (%)
			Maximum	Minimum	
1.	January	16.64	27.80	21.60	74.10
2.	February	0.0	29.20	21.00	55.20
3.	March	22.88	33.10	22.80	48.00
4.	April	27.3	35.60	25.80	52.60
5.	May	182.54	36.20	28.30	49.60
6.	June	51.89	33.60	27.60	49.90
7.	July	55.68	32.90	25.90	62.50
8.	August	212.64	33.10	26.50	61.70
9.	September	187.23	32.80	25.10	68.10
10.	October	276.32	31.60	24.70	61.90
11.	November	67.35	29.30	23.50	75.30
12.	December	48.94	28.30	21.90	76.10
Average/Total		**1149.42**	**31.96**	**24.56**	**61.25**

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

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

2.7. Details of Adopted Villages (2025)

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
Details of Adopted Village							
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.	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, FLD, Training, Extensio activities
				2016-17	Tomato	Low yield, Flower drop, Lack of application of growth regulators, Lack of adoption of improved hybrids and technologies, Leaf curl in tomato, Imbalanced nutrition, Poor quality seedlings and field establishment. No value addition.	OFT, Training, Extension activities
				2016-17	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).	Trainings, 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
Details of DFI Village							
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.	Trainings, Method demonstration
					Cattle	Low milk production, High disease incidence. Infertility due to repeat breeding, Lack of awareness on clean milk production, Wounds by flies and Maggots occurs.	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
					Herbal garden	Lack of awareness on medicinal plants cultivation and its usage for common ailment.	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	Athanur	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.	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
					Turmeric	Lack of micro nutrient application, Low yield, Imbalanced nutrition, Lack of adoption of improved technologies, High incidence of pest and diseases, Lack of knowledge on value addition.	Trainings, Method demonstration

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
					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, Maize, Sugarcane, Brinjal, Chillies, Bhendi, Cucurbits, Turmeric	Integrated Crop Management
Paddy, Redgram, Blackgram, Millets, Groundnut, Tomato, Brinjal, Bhendi	Varietal assessment
Paddy, Blackgram, Greengram, Groundnut, Millet, Bottlegourd, Chilli and poultry	Demonstration of high yielding hybrids/varieties/breeds
Paddy, Groundnut, Blackgram, Millets, Chilies, Banana, Cassava, Bhendi	Integrated Nutrient and weed Management
Paddy, Groundnut, Maize, Pulses, Sugarcane, Snakegourd, Banana, Brinjal, Chilli, Coconut, Tuberose, Millet, Tomato	Integrated Pest and Disease Management
Paddy, Millet, Groundnut, Blackgram, Fodder	Quality seed production
Paddy	Conservation of traditional varieties
Country chicks, Orchard development, Apiculture, Vermiculture	Livilihood improvement for underprivileged thorugh secondary agriculture
Agri Drone, Custom hiring centres	Rural employment generation
Paddy, Groundnut, Pulses, Vegetables, Millets	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
Cattle, Sheep, Goat and Poultry	Disease management for livestock
Field crops, Fruits, Vegetables, Milk	Value addition, Drudgery reduction

3. Salient Achievements

Achievements of Mandated activities (1st January 2025 to 31st December 2025)

S.No	Activity	Target	Achievement
1.	Technologies Assessed and refined (No.)	40	40
2.	On-farm trials conducted (No.)	20	20
3.	Frontline demonstrations conducted (No.)	22	22
4.	Farmers trained (in Lakh)	0.01744	0.01744
5.	Extension Personnel trained (No.)	70	70
6.	Participants in extension activities (in Lakh)	0.32	0.32719
7.	Production and distribution of Seed (in Quintal)	142.0	534.085
8.	Planting material produced and distributed (in Lakh)	5694	5694
9.	Live-stock strains and finger lings produced and distributed (in Lakh)	0.033	0.03333
10.	Soil samples tested by Mini Soil Testing Kit (No)	100	243
11.	Soil samples tested by Traditional Laboratory (No)	700	884
12.	Water, plant, manure and other samples tested (No.)	100	221
13.	Mobile agro-advisory provided to farmers (No.)	50000	188843
14.	No.of Soil Health Cards issued by Mini Soil Testing Kits (No.)	100	1243
15.	No. of Soil Health Cards issued by Traditional Laboratory (No.)	700	884

Salient Achievements by KVK during the year in bullet points:

- With a view to increase the productivity of vegetable crops by 20 %, foliar nutrition of IIHR vegetable has been promoted by KVK. Total quantity of 235 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 2170 ha in the district. Similarly KVK has supplied 500 kgs of pulse wonder to increase the productivity in blackgram.
- Quality seeds of improved high yielding new varieties viz., Groundnut (TMV 14) 410.4 Qtl, Pulses (Blackgram, Greengram, Horsegram) 46.28 Qtl and fodder seeds like, hedge leucerne, fodder cowpea, COFS 31 and Agathi (14.79s Qtl) were supplied to the farmers.
- A total of 300 pandhal vegetable cultivation units were established in the Kilpennathur and Thurinjapuram blocks to enhance farmer yield and income.
- A total of 23 animal camps were successfully organized in collaboration with Animal Husbandery department and other NGOs providing essential treatment to 3041 animals in the district.
- From the 18 Integrated Farming System models established by the KVK, 12 IFS models have risen to success with a net cumulative income of > 60 lakhs per annum, 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
20	20	40	40	20	2	100	100

FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers / Beneficiaries / Replications	
Targets	Achievement	Targets	Achievement	Targets	Achievement
22	22	46	46	195	195

Training including sponsored, vocational and other trainings

Number of Courses			Number of Participants	
Clientele	Targets	Achievement	Targets	Achievement
Farmers and Farm Women	101	101	1488	1488
Rural youth	6	6	120	120
Extn. Functionaries	3	3	70	70
Vocational	5	5	66	66
Sponsored training	7	7	192	192

Extension Activities

Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement
450	478	13500	32719

Seed Production (q)

Target	Achievement	Distributed to no. of farmers
120	534.085	2477

Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
3000	5694	627

Bio Products (Kgs.)

Target	Achievement	Distributed to no. of farmers
5000	5424	1243

4.1. Technology Assessments (OFTs)

4.1.1. Assessment of Finger millet varieties for higher Yield under TSP

1. Thematic area : Varietal evaluation

2. Title : Assessment of Finger millet varieties for higher Yield under TSP

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		
Rainfed	Rabi	Sandy loam	L	M	H	302	7

5. Problem definition / description:

- Poor yield
- Lack of awareness on improved varieties
- Poor knowledge on ICM

6. Technology Assessed:

TO1 : Finger millet variety ATL 2

TO2 : Finger millet variety CFMV 1

FP : Local variety

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Finger millet variety ATL 2	12.5 kg	625.00
Finger millet variety CFMV 1	12.5 kg	875.00
Trichoderma asperellum	5 kg	875.00
Bacillus subtilis	5 kg	875.00
Field board	5 nos	1504.50
Total Rs.		**4754.50**

8. Results:

Table :Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
FP	5	20.7	42145	1.79
TO1		24.5	58556	2.14
TO2		22.4	51005	2.03

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Plant Height (cm)	79.42	84.7	84.34
Yield(q/ha)	20.7	24.5	22.4
Gross Cost (Rs./ha)	52202	51694	49795
Gross Income (Rs./ha)	93150	110250	100800
Net income (Rs./ha)	42145	58556	51005
BCR	1.79	2.14	2.03

Description of the results:

Finger millet varietal trials were conducted at five locations with five farmers during the Rabi season (2025–26). Growth and yield parameters were recorded.ATL 2 produced the highest average yield which is 18% higher than the local variety

9. Constraints: Lack of man power for harvesting, inadequate availability of quality seed and poor access to market.

10. Feedback of the farmers involved:

The Finger millet variety ATL 2 has recorded higher yield and getting higher market price compared to local. This variety is highly suitable for Thiruvannamalai district.

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

Availability of ATL 2 Finger millet seeds should be ensured in *kharif* season.

4.1.2. Assessment of Finger millet varieties for higher Yield under SCSP

1. Thematic area : Varietal evaluation

2. Title : Assessment of Finger millet varieties for higher Yield under SCSP

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		
Rainfed	Rabi	Sandy loam	L	M	H	248.1	6

5. Problem definition / description:

- ❖ Poor yield
- ❖ Lack of awareness on improved varieties
- ❖ Poor knowledge on ICM

6. Technology Assessed:

TO1 : Finger millet variety ATL 2

TO2 : Finger millet variety CFMV 1

FP : Local variety

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Finger millet variety ATL 2	12.5 kg	625.00
Finger millet variety CFMV 1	12.5 kg	875.00
Trichoderma asperellum	5 kg	875.00
Bacillus subtilis	5 kg	875.00
Field board	5 nos	1504.50
Total Rs.		**4754.50**

8. Results:

Table :Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
FP	*5*	20.7	40662	1.79
TO1		24.7	59403	2.15
TO2		23.06	52488	2.02

Table 2: Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
No.of fingers/plant (nos)	7.8	10.2	9.2
Yield(q/ha)	20.7	24.7	23.06
Gross Cost (Rs./ha)	52202	51837	51282
Gross Income (Rs./ha)	93150	111240	103770
Net income (Rs./ha)	40662	59403	52488
BCR	1.79	2.15	2.02

Description of the results:

The mean average yield was recorded in ATL2 Finger millet, which is 19.4% higher compared to local variety followed by CFMV 1 Finger millet variety (23.06 Qtl/ha). Farmers have obtained the highest net income of Rs. 59403/ha in Finger millet variety ATL 2

9. Constraints: Lack of man power for harvesting, inadequate availability of quality seed and poor access to market.

10. Feedback of the farmers involved:

The Finger millet variety ATL 2 has recorded higher yield and getting higher market price compared to local. This variety is highly suitable for Thiruvannamalai district.

4.1.3. Assessment of Maize Hybrid varieties for higher productivity

1. Thematic area : Varietal Assessment

2. Title : Assessment of Maize Hybrid varieties for higher Productivity

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		
Rainfed	Kharif	Clay loam	L	M	M	685.2	19

5. Problem definition / description:

- ❖ Lack of awareness on improved varieties
- ❖ Poor yield.
- ❖ Non availability of quality inputs.

6. Technology Assessed:

TO1 : Maize COH(M)11
TO2 : Maize BRMH 8
FP : Cultivation of private hybrid

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Maize seed COH(M)11	25 kg	4388.00
Maize seed BRMH 8	25 kg	7175.00
Trichoderma asperellum	5 kg	875.00
Bacillus subtilis	5 kg	875.00
Field board	5	1504.50
Total Rs.		**14817.50**

8. Results :

Table : Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ha)	BCR	Other performance indicators*
FP	5	49.44	151258	2.23	▪ Plant height (cm) ▪ Yield (q/ha)
TO1		58.64	137140	2.83	
TO2		55.82	108990	2.60	

Table :Data on other performance indicators

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Plant Height (cm)	158.4	202.2	168.5
Yield(q/ha)	49.44	58.64	55.82
Gross Cost (Rs./ha)	88770	83302	86140
Gross Income (Rs./ha)	197760	234560	223280
Net income (Rs./ha)	108990	151258	137140
BCR	2.23	2.83	2.60

Description of the results:

In COH(M)11, the average yield was 58.64 Qtl/ha, 19% more than the local variety (49.44 Qtl/ha), followed by the BRMH 8 Maize variety (55.82 Qtl/ha). COH(M)11 showed a benefit cost ratio of 2.83.

9. Constrains: Availability of quality seeds throughout the year may be ensured.

10. Feed back of the farmers involved:

The Maize variety COH(M)11 has recorded higher yield and fetched higher market price compared to Local variety.

4.1.4. Assessment of Finger millet intercropping with Blackgram

1. Thematic area : Crop Production and Management

2. Title : Assessment of Finger millet intercropping with 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	Kharif	Sandy loam	L	M	M	734.2	20

5. Problem definition / description:

- Lack of knowledge about intercropping
- Poor yield

6. Technology Assessed:

TO1 : Finger millet intercropping with Blackgram (1:1)

TO2 : Finger millet intercropping with Blackgram (2:1)

FP : Finger millet Sole cropping

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Finger millet ATL 1	12.5 kg	588.00
Blackgram VBN 8	20 kg	1900.00
Cotton bags	10 nos	170.00
Trichoderma viride	10 kg	1750.00
Bacillus subtilis	10 kg	1750.00
Field board	5 nos	1504.50
Total Rs.		

8. Results:

Table : Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
FP	5	21.56	49294	2.05
TO1		26.3	73616	2.66
TO2		24.84	65399	2.42

Table :Data on other Performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Yield(q/ha)	21.56	26.3	24.84
Gross Cost (Rs./ha)	47726	44734	46381
Gross Income (Rs./ha)	97020	118350	111780
Net income (Rs./ha)	49294	73616	65399
BCR	2.05	2.66	2.42

Description of the results:
Both the Intercropping Finger millet with Blackgram 1:1 and 2:1 gave better yield and additional income . But, Finger millet with Blackgram 1:1 gave more yield with increasing BCR of 2.66

9. Constraints: Maintanence of two crops with ICM Practices.

10. Feed back of the farmers involved:

Finger millet intercropping with Blackgram(1:1) has recorded higher yield when compared to the sole cropping and can withstrand crop failure

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

Farmers get additional income from the intercropping and able to maintain the economic during the failure of one crop

4.1.5. Assessment of Drought management strategies for improving yield in Blackgram

1. Thematic area : Crop Production and Management

2. Title : Assessment of Drought management strategies for improving yield 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		
Rainfed	Rabi	Sandy loam	L	M	M	131.1	6

5. Problem definition / description:

- Lack of knowledge about seed treatment and drought management technologies.
- Poor yield.

6. Technology Assessed:

TO1 : Blackgram seed treated with Probiotics +VAM+Rhizobium

TO2 : Blackgram seed treated with PPFM

FP : No seed treatment

7. Critical inputs given

Name of the input	Quantity	Value in Rupees
Blackgram seeds VBN 8	20 kg	2400.00
VAM	250 g	50.00
PPFM	1 litre	424.00
Probiotics	1 litre	0.00
Rhizobium	1 litre	300.00
Field board	5 nos	1504.50
Total Rs.		**4678.50**

8. Results:

Table :Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
FP	5	6.71	28083.6	2.11
TO1		8.23	40079.4	2.58
TO2		7.63	35772.8	2.44

Table 2 : Data on other Performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Plant population/m^2	23	30.2	27.2
No. of pods/plant	22	33	28
Yield(q/ha)	6.71	8.23	7.63
Gross Cost (Rs./ha)	25582	25647	25248
Gross Income (Rs./ha)	53666	65726	61021
Net income (Rs./ha)	28084	40079	35773
BCR	2.11	2.58	2.44

Description of the results: In comparison to the no seed treatment Blackgram seeds treated with Probiotics+VAM+Rhizobium had more pods per plant, followed by Blackgram seeds treated with PPFM . It also shown better germination percentage which increases plant population

9. Constrains: Lack of knowledge about seed treatment techniques

10. Feed back of the farmers involved: Blackgram seeds treated with Probiotics+VAM+Rhizobium adapt at drought conditions.

11. Feed back to the scientist who developed the technology:
Easy availability and purchase of probiotics for seed treatment should be ensured

4.1.6. Assessment of the performance of paddy varieties for higher productivity

1. Thematic area : Varietal Assessment

2. Title : Assessment of the performance of paddy varieties for higher productivity

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	Kharif	Clay loam	L	M	H	778.4	22

5. Problem definition / description:

There is no adoption of new variety. Lack of awareness about high yielding varieties leads to poor yield. Adoption of old varieties like BPT and NLR. Practicing of lodging varieties. Adoption of varieties which is susceptible to BPH, Stem borer and leaf blight. High cost of inputs and lack of capitals are main problem in rice cultivation leads to massive application of fertilizers and pesticides.

6. Technology Assessed:

TO1 :Paddy variety- CO55 – The duration is 115days. It is a slender grain type and moderately resistant to Rice Tungro Disease. The yield is 6057kg/ha

TO2 :Paddy variety – RNR 15048 – The duration is 125 days. It is a slender grain type and resistant to leaf blast. The yield is 6500kg/ha

FP :Cultivation of BPT & NLR

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Paddy seed CO55	75 kg	3375.00
Paddy seed RNR15048	75 kg	4500.00
Bacillus subtilis	10 kg	750.00
Field board	5 nos	1062.50
Total Rs.		**9687.50**

8. Results :

Table 1 : Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ha)	BCR	Other performance indicators*
FP	5	45.06	43752	1.79	▪ Number of plants/sqm ▪ No. of tillers/plant ▪ No. of grains/plant ▪ Yield (q/ha) ▪ BCR
TO1		52.16	52812	1.87	
TO2		58.08	72178	2.18	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Number of plants/sqm	31.61	33.95	34.93
Number of tillers	35	43	44
Number of grains/plant	85.07	93.9	96.37
Yield(q/ha)	45.06	52.16	58.08
Gross Cost (Rs./ha)	55380	61940	61406
Gross Income (Rs./ha)	99132	114752	133584
Net income (Rs./ha)	43752	52812	72178
BCR	1.79	1.87	2.18

Description of the results:

The rice varietal assessment trials were conducted across five locations during the Kharif season. Various growth and yield parameters were recorded. Among the varieties tested, RNR15048 consistently performed the best, showing the highest number of grains per plant, yield, net income, and benefit-cost ratio. CO55 showed intermediate performance, while the farmers' traditional variety, NLR, recorded the lowest values in all parameters.

9. Constrains: Availability of quality seeds throughout the year may be ensured from the research stations/universities.

10. Feed back of the farmers involved:

The Paddy variety RNR15048 has recorded higher yield and getting higher market price compared to NLR. This variety is highly suitable for *Kharif* season.

4.1.7. Assessment of the Foliar nutrition for the improvement of grain filling in Rice.

1. Thematic area : Crop Production and Management

2. Title : Assessment of the Foliar nutrition for the improvement of grain filling in Rice

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	Kharif	Sandy loam	L	M	H	615.2	17

5. Problem definition / description:

There is no adoption of micronutrients and foliar spray leads to poor yield and micronutrient deficiency.

6. Technology Assessed:

TO1 : TNAU Rice Reap
TO2: KNO_3
FP : No usage of foliar spray

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
TNAU Rice Reap	16 kg	3872.00
KNO_3	30 kg	5250.00
Field board	5 nos	1062.50
Total Rs.		**10184.50**

8. Results :

Table 1 : Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ha)	BCR	Other performance indicators*
FP	5	49.72	44060	1.79	▪ No. of productive tillers/plant ▪ Yield (q/ha) ▪ BCR
TO1		56.92	69510	2.13	
TO2		54.38	57696	1.95	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
No. of productive tillers/plant	29.4	33.2	31.5
Yield(q/ha)	49.72	56.92	54.38
Gross Cost (Rs./ha)	55380	61406	61940
Gross Income (Rs./ha)	99440	130916	119636
Net income (Rs./ha)	44060	69510	57696
BCR	1.79	2.13	1.95

Description of the results:

In the trial, the number of productive tillers and overall yield were highest in rice treated with TNAU Rice Reap foliar spray, followed by KNO_3 treatment, while the farmers' practice without foliar spray showed the lowest performance. Similarly, net income and benefit-cost ratio were greatest with TNAU Rice Reap and lowest with no foliar spray.

9. **Constrains:** Non availability of foliar spray during the season.

10. **Feed back of the farmers involved:** TNAU Rice reap gave more productive tillers which increase the yield of the crop

11. **Feed back to the scientist who developed the technology:**
Based on the assessment of foliar spray TNAU Rice reap increased the grain yield upto 13%

4.1.8. Assessment of brinjal varieties for higher productivity

1. **Thematic area** : Varietal evaluation
2. **Title** : Assessment of brinjal 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	486.1	7

5. **Problem definition / description:**
   - Low yield in existing variety
   - Lack of awareness on improved varieties
   - Poor fruit quality.

6. **Technology Assessed:**

   TO1 : Cultivation of Arka Neelanchal Shyama
   TO2 : Cultivation of MDU 2 brinjal
   FP : Cultivation of local varieties

7. **Critical inputs given:**

Name of the input	Quantity	Value in Rupees
Arka Neelanchal Shyama	400 gm	240.00
MDU 2 brinjal	400 gm	980.00
Vegetable Special	20 kg	4000.00
Field board	5 Nos	1504.50
Total Rs.		**6724.50**

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	5	222.30	109843	1.60	▪ Days to 50%flowering ▪ Average fruit weight(g)
TO1		254.10	178413	1.79	
TO2		283.80	139437	2.08	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Days to 50% flowering	51.2	48.7	44.8
Average fruit weight(g)	131.4	148.8	188.2

Description of the results: The MDU 2 brinjal variety outperformed local varieties, delivering a 27.68% higher yield and a Benefit-Cost Ratio (BCR) of 2.08. Furthermore, it generated an additional net profit of Rs. 178413 per hectare.

9. Constraints: Farmers struggled to plant in the optimal season due to the unavailability of improved varieties and limited access to markets.

10. Feedback of the farmers involved: With a yield of 283.8 Q/ha, MDU 2 brinjal outperforms Arka Neelanchal Shyama (254.1 Q/ha) in productivity while also offering superior fruit quality.

11. Feed back to the scientist who developed the technology: The development of improved cultivars possessing resistance to the shoot and fruit borer is recommended.

4.1.9. Assessment of bhendi hybrids for increased productivity

1. Thematic area : Varietal evaluation

2. Title : Assessment of bhendi hybrids for increased 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	M	H	585.4	18

5. Problem definition / description:

- Lack of knowledge on improved high yielding hybrids.
- Poor fruit quality.

6. Technology Assessed:

TO1 : Cultivation of Arka nikita.
TO2 : Cultivation of COBH4
FP : Local Hybrids

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Arka nikita	2 kg	4000.00
COBH 4	2 kg	6400.00
Vegetable special	10 kg	2000.00
Field board	5 nos	1504.5
Total Rs.		**13904.50**

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	5	195.9	74695	1.75	▪ Days to 50%flowering ▪ Average fruit weight(g)
TO1		223.8	107931	2.19	
TO2		249.5	144716	2.79	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Days to 50% flowering	49.0	45.0	41.6
Average fruit weight(g)	13.3	15.5	18.8

Description of the results: The COBH 4 bhendi hybrid outperforms local varieties with a 27.35% higher yield and a Benefit-Cost Ratio (BCR) of 2.79, generating an additional net return of Rs. 144716 per hectare

9. Constraints: The unavailability of improved hybrids hindered the ability to conduct planting during the appropriate season.

10. **Feedback of the farmers involved:** The COBH 4 okra variety outperforms Arka Nikita, yielding 249.5 Q/ha compared to 223.8 Q/ha, while simultaneously offering superior fruit quality and higher market value.

11. **Feed back to the scientist who developed the technology:** Breeders can develop improved hybrids with resistance to the yellow vein mosaic virus.

4.1.10. Assessment of suitable tomato hybrids for higher productivity

1. **Thematic area** : Varietal evaluation
2. **Title** : Assessment of improved tomato hybrids 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	Rabi	Sandy loam	L	M	H	524.2	9

5. **Problem definition / description:**
   - High seed cost in private hybrids
   - Lack of awareness on improved hybrids
   - Yield levels are low.

6. **Technology Assessed:**

   TO1 : COTH4
   TO2 : Arka aditya
   FP : Private hybrids

7. **Critical inputs given:**

Name of the input	Quantity	Value in Rupees
Arka aditya	150 gm	5700.00
COTH 4	50 gm	1600.00
Vegetable special	20 kg	4000.00
Field board	5 Nos	1504.50
Total Rs.		**12804.50**

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	5	635.6	111108	1.76	▪ Days to 50%flowering ▪ Average fruit weight(g)
TO1		812.9	163142	2.35	
TO2		708.3	132298	2.08	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Days to 50% flowering	56.9	51.4	54.4
Average fruit weight(g)	64.2	72.0	68.3

Description of the results: COTH 4 tomato hybrid outperformed local varieties with a 27.9% yield increase and a 2.74 BCR, generating an additional net profit of Rs.163142 per hectare.

9. Constraints: The unavailability of improved hybrids hindered the ability to conduct planting during the appropriate season.

10. Feedback of the farmers involved: With a yield of 812.9 Q/ha, COTH 4 Tomato significantly outperforms Arka Aditya (708.3 Q/ha) in productivity, while also offering superior fruit quality and higher market value.

11. Feed back to the scientist who developed the technology: Researchers can develop improved hybrids by incorporating resistance to tomato leaf curl virus, fruit borers, and nematodes.

4.1.11. Assessment of nutrient formulation for higher productivity in cassava

1. Thematic area : Varietal evaluation

2. Title : Assessment of nutrient formulation for higher Productivity in cassava

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	1013.6	12

5. Problem definition / description:

- Less awareness on application of micro nutrients
- Less tuber yield

6. Technology Assessed:

TO1 : Application of TNAU cassava booster
TO2 : Application of cassava special
FP : NPK application

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
TNAU cassava booster	50 kg	6000.00
Cassava special	10 lit	2750.00
Field board	5 Nos	1504.50
Total Rs.		**10254.50**

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	5	353.3	128608	1.98	▪ Tuber length (cm) ▪ Tuber weight (gm)
TO1		419.4	189671	2.50	
TO2		396.1	163430	2.24	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Tuber length (cm)	26.6	32.0	29.2
Tuber weight (gm)	454.9	608.0	526.7

Description of the results: The application of TNAU Cassava Booster resulted in an 18.7% yield increase over standard NPK fertilization, achieving a benefit-cost ratio (BCR) of 2.50. This practice generated an additional net profit of Rs.189671 per hectare.

9. Constraints: Preparing micronutrient mixtures is a time-intensive process

10. Feedback of the farmers involved: The use of TNAU cassava booster has been shown to enhance both tuber yield and overall quality.

11. **Feed back to the scientist who developed the technology:** The TNAU cassava booster is highly effective at improving crop health and yield. Making this booster readily available would be incredibly beneficial for farmers.

4.1.12. Assessment of Bhendi hybrids for higher productivity

1. **Thematic area** : Varietal evaluation
2. **Title** : Assessment of bhendi hybrids 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	M	H	641.5	14

5. **Problem definition / description:**
   - Lack of knowledge on improved high yielding hybrids
   - Poor fruit quality.
6. **Technology Assessed:**

   TO1 : Cultivation of Bhendi CO(H)5
   TO2 : Cultivation of Arka nikita
   FP : Private Hybrids
7. **Critical inputs given:**

Name of the input	Quantity	Value in Rupees
Bhendi CO(H)5	2 kg	6840.00
Arka nikita	2 kg	4000.00
Vegetable special	10 kg	1200.00
Field board	5 nos	1062.50
Total Rs.		**13102.50**

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	5	192.7	78615	1.85	▪ Days to 50%flowering ▪ Average fruit weight(g)
TO1		251.5	108491	2.35	
TO2		231.1	93935	2.10	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Days to 50% flowering	48.9	41.3	44.8
Average fruit weight(g)	11.9	16.3	13.6

Description of the results: The COB(H)5 bhendi hybrid outperformed local varieties with a 30.48% higher yield and a benefit-cost ratio (BCR) of 2.35. Furthermore, its cultivation resulted in an additional net return of Rs. 108,491 per hectare.

9. **Constraints:** The unavailability of improved hybrids prevented planting at the correct time.

10. **Feedback of the farmers involved:** The COB(H)5 okra variety outperforms Arka Nikita in yield, recording 251.5 Q/ha compared to 231.1 Q/ha. Furthermore, COB(H)5 is characterized by superior fruit quality and greater market demand.

11. **Feed back to the scientist who developed the technology:** Improved, yellow vein mosaic virus-resistant hybrids can be developed.

4.1.13. Assessment of IDM practices for the management of false smut disease in Rice

1. **Thematic area** : Integrated Disease Management
2. **Title** : Assessment of IDM practices for the management of false smut disease in Rice
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	Kharif	Sandy loam	L	M	H	638.02	19

5. **Problem definition / description:**

- High incidence of False smut
- Low yield
- Lack of knowledge on IDM practices

6. **Technology Assessed:**

TO1 : Seed treatment with carbendazim 2.0g/kg of seeds. Foliar spraying of Azoxystrobin 7.1% + Propiconazole 11.9 % W/W SE @ 500 ml/ha at tillering and early booting stage.

TO2 : Spraying of Fluxapyroxad 62.5% + Epoxyconazole62.5% (300 ml/ ac) followed by Trifloxystrobin25% + Tebuconazole 50% (80 g/ac) Two sprays of Trifloxystrobin 25% + Tebuconazole50% (80 g/ac) at booting stage and post flowering stage.

FP : Spraying of COC 500 gram per acre alone, after the incidence

7. Critical inputs given

Name of the input	Quantity	Value in Rupees
Azoxystrobin 7.1% + Propiconazole 11.9 %	1.25 lit	6250.00
Trifloxystrobin25% + Tebuconazole50%	500 g	5500.00
Field board	5 nos	1504.50
Total Rs.		**13254.50**

8. Results:

Table : Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
FP	5	52.57	55783.00	2.34:1
TO1		59.65	73870.00	2.18:1
TO2		57.38	69785.00	1.89:1

Table 2 : Data on other Performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Percent Disease Incidence of False smut	13.37	2.14	5.11

Description of the results: The TO1 achieved a greater yield of 59.65 q/ha than TO2 (57.38 q/ha) and the farmers' practice (52.57 q/ha). In addition, the average yield rises by 13.47 %, achieving a higher BCR of 2.34. The incidence of false smut disease was less in 2.14 %.

9. Constrains: -

10. Feed back of the farmers involved : The farmers believed that TNAU package in paddy cultivation effectively controlled the false smut disease, and resulted in additional net returns of Rs. 18087.00 per ha.

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

4.1.14. Assessment of IDM practices for Groundnut root rot disease

1. **Thematic area** : Integrated Disease Management
2. **Title** : **Assessment of IDM practices for Groundnut root rot disease**
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	Red loamy soil	L	M	H	428.6	17

5. **Problem definition / description:**
   - High incidence of Root rot
   - Lack of knowledge on IDM practices
   - Low yield

6. **Technology Assessed:**

TO 1 : Summer ploughing, Seed treatment with Carbendazim @2 g/kg of seed, Soil application of *Bacillus subtilis* and *Trichoderma asperellum* @ 2.5 kg/ha mixed with 50 kg FYM on 30 DAS. Soil drench with carbendazim @ 1 g / l

TO 2 : Summer ploughing, Seed Treatment with Tebuconazole 2DS @ 1.5 g/kg of seed. Soil application of *Trichoderma asperellum* @ 4 kg/ha with enriched 250 Kg FYM first at the time of sowing, 35 and 70 DAS.

FP : Spraying of Carbendazim 50% WP

7. **Critical inputs given:**

S.No	Name of the input	Quantity	Value (Rs.)
1	*Trichoderma asperellum*	20 kg	3500.00
2	*Bacillus subtilis*	20 kg	3500.00
3	Carbendazim	500 g	575.00
4	Tebuconazole	500 g	800.00
5	Field Board	5 Nos	1504.50
Total			**9879.50**

8. Results

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ ha)	BCR	Percent Root rot incidence (%)
FP		18.25	43180.00	1.65	4.67
TO 1	5	23.05	76550.00	2.26	7.88
TO 2		19.96	58110.00	2.01	23.17

Description of the results: TO1 exhibited the lowest incidence of root rot at 4.67%, while TO2 recorded 7.88%, in contrast to farmer practice shows 23.17%. It resulted in a higher yield (23.05 q/ha) compared to farmers' standard practices (18.25 q/ha). Additionally, the average yield rose by 26.88 percent with an improved BCR of 2.26.

9. Constrains: Poor availability of seed treatment fungicides in the local market.

10. Feed back of the farmers involved : Adopting TO1 in groundnut cultivation has increased the yield and improves the returns of Rs. 76550.00/ ha with less incidence of root rot diasease as compared to other practices.

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

4.1.15. Assessment of biological methods for management of root knot nematode in Tomato

1. Thematic area : Integrated Pest Management

2. Title : **Assessment of biological methods for 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	Rabi	Sandy clayloam	L	H	H	284.61	9

5. Problem definition / description:

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

6. Technology Assessed:

TO 1 : Nursery beds treated with antagonists (*Trichoderma harzianum, Purpureocillium lilacinum*) @ 50g/m2. Soil application of *Purpureocillium lilacinum* @ 10 kg/ha. Drenching of fungal (*T. harzianum*, *T. asperellum, P. lilacinum*) and bacterial antagonists (*Bacillus subtilis*) @ 0.5% at regular interval of 30 days after transplanting.

TO 2 : Soil solarization before preparation of nursery bed. Seed Treatment - *Trichoderma asperellum* @ 4g/kg , Pressmud @ 5kg/m2 or *Purpureocillium lilacinum* @ 10g/kg of seed. Soil application of *P. lilacinum* @ 50g/m2.

FP : Application of carbofuron 10 kg/ha

7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	*Trichoderma asperellum*	20 kg	3500.00
2	*Bacillus subtilis*	20 kg	3500.00
3	*Purpureocillium lilacinum*	20 kg	2880.00
4	Field Board	5 Nos	1504.50
Total			**11384.50**

8. Results

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ ha)	BCR	Percent Nematode Incidence (%)
FP		801.38	241759.00	2.21	20.40
TO 1	5	904.22	310237.00	2.66	5.77
TO 2		918.78	318769.00	2.71	4.39

Description of the results: TO2 significantly higher the yield of 918.78 q/ha compared with other technologies, reflecting a 14.65% increase in yield and achieving an improved BCR of 2.71. Additionally, it effectively reduced the incidence of root knot nematodes in tomato crops to 4.39%, a notable improvement compared to the 20.40% observed under farmer practices.

9. Constrains : Poor availability of quality bio nematicide in the farmers locality.

10. Feed back of the farmers involved : Farmers have expressed satisfaction with the adoption of the TNAU-developed package (TO2), which has proven highly effective in managing root-knot nematodes in tomato and resulted lowest incidence of 4.39%, alongside a significant enhancement of economic returns Rs. 507,650.00 per hectare.

11. Feed back to the scientist who developed the technology: Nematode analyzing tools or lab maybe available in the district level.

4.1.16. Assessment of bioinoculants against tuberose root knot nematode

1. **Thematic area** : Integrated Pest Management
2. **Title** : Assessment of bioinoculants against tuberose root knot nematode
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	H	M	1149.42	36

5. **Problem definition / description:**

- High incidence of Nematode
- Lack of knowledge on Nematode management
- Low flower yield

6. **Technology Assessed:**

TO 1 : Apply *Pocchonia chlamydosporia* as bulb treatment @ 1kg/ha, Soil application *Pocchonia chlamydosporia* @ 2.5kg/ha mixed with 100kg FYM or apply Carbofuran 3 G @ 1 g/plant near the root zone and irrigate immediately.

TO 2 : Soil application of bio pesticides enriched FYM @ 5 tons/ha before planting (For enrichment process, mix 2 kg each of *Trichoderma viride, Bacillus subtilis* and *Purpureocillium lilacinumin* 1 ton of FYM)

FP : Application of chemical pesticides

7. **Critical inputs given:**

S.No	Name of the input	Quantity	Value (Rs.)
1	*Pocchonia chlamydosporia*	10 Kg	1440.00
2	*Purpureocillium lilacinumin*	10 Kg	1440.00
3	*Trichoderma asperillum*	10 Kg	1750.00
4	*Bacillus subtilis*	10 Kg	1750.00
5	Field board	5 No	1504.50
Total			**7884.50**

8. Results:

Table 1: Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ ha)	BCR	Percent Nematode Incidence (%)
FP		144.46	167540.00	2.38	16.37
TO 1	5	159.04	243168.00	3.28	4.68
TO 2		157.08	222368.00	3.07	5.93

Description of the results: It is found that the TO1 has given higher yield 159.04 q/ha and low incidence of nematode 4.68 percent as compared with TO2 and farmers' practice with higher BCR of 3.28. Overall, the TO1 has found effective in nematode management and the farmers gained high net income of Rs.243168.00 as compared to farmers' practice.

9. Constrains: Nil

10. Feed back of the farmers involved : The farmers felt happy with adoption of TO1, that effectively control the root knot nematode in tuberose and increased yield by 10.09 % as compared with other technologies.

11. Feed back to the scientist who developed the technology : Nematode analyzing tools or lab maybe available in the district level.

4.1.17. Assessment of stem borer management technologies in Rice

1. Thematic area : Integrated Pest Management
2. Title : Assessment of stem borer management technologies in Rice
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 clayloam	L	M	M	579.84	16

5. **Problem definition / description:**
- High incidence of Stem borer
- Lack of knowledge on IPM
- Low yield

6. Technology Assessed:

TO 1 : Clip the seedling tips before transplanting to eliminate egg masses. Install light trap @ 1 / ha, Pheromone trap @ 5 / ac. Release egg parasitoid, *Trichogramma japonicum* @ 2cc /ac 3 times at weekly interval from 37 DAT, Spray Azadirachtin 0.03% 400 ml/ac, Need based spraying of Chlorantraniliprole 18.5% SC 60 ml/ac

TO 2 : Release egg parasitoid, Trichogramma japonicum @ 2cc /ac at 30 DAT, Pheromone trap @ 8 / ac for mass trapping, Need based spraying of Chlorantraniliprole 18.5% SC 60 ml/ac

FP : Application of pesticides

7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	Pheromone Trap	45 No.	2260.00
2	Stem borer Lure	90 No.	2015.00
3	Chlorantraniliprole	150 ml	2076.00
4	Azadirachtin	2.5 lit	1100.00
5	Field board	5 No	1063.00
Total			**8514.00**

8. Results:

Table 1: Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ ha)	BCR	Percent Stem borer Incidence (%)
FP		52.35	46563.00	1.68	21.35
TO 1	5	60.39	74089.00	2.26	6.31
TO 2		57.47	68344.00	2.18	10.01

Description of the results: TO1 has significantly higher yield of 60.39q/ha, accompanied by a lower stemborer incidence rate of 6.31%, compared to TO2 and farmers' practices. This resulted in a 15.36% increase in yield; consequently, farmers achieved a substantial net income increase of Rs. 74,089.00 over other comparisons.

9. Constrains: Poor availability of traps and lures in the local Agri Clinic Centre. Non availability of parasitoid in the district.

10. Feed back of the farmers involved : The farmers expressed satisfaction with the implementation of TO1, as it has successfully managed the stem borer in paddy and resulted in an additional net income of Rs. 27526 per hectare.

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

4.1.18. Assessment of anionic powder for milk fever in High yielding milch cow

1. Thematic area : Livestock Production Management

2. Title : **Assessment of anionic powder for milk fever in High yielding milch cow**

3. Scientists involved : Subject Matter Specialist (Animal Science).

4. Details of farming situation : Not applicable

5. **Problem definition / description:**

Milk fever is one of the transition period metabolic disease most common in mature dairy cows which occurs due to the deficiency of calcium

6. **Technology Assessed:**

TO 1 : TANUVAS PAM 21 : Feeding of TANUVAS PAM 21 to transition cows from 16 days prior to calving to 5 days post calving through dietary cationic anionic balance in the ration reduces the incidence of milk fever

TO 2 : Anionic Mishran AFS : 100gm once or 50gm twice a day for 3-4 weeks before calving in pregnant dry animals

FP : No Feeding of Anionic powder

7. **Critical inputs given:**

S.No	Name of the input	Quantity	Value (Rs.)
1	TANUVAS PAM 21	50 Kg	7500.00
2	Anionic mishran AFS	25 Kg	4750.00
3	Field board	5 Nos	1504.00
Total Rs.			**13754.00**

8. **Results:**

Table 1: Performance of the technology

Technology Option	No. of trials	Production Milk yield (lits)/ lactation	Net Return (Rs.)	BCR	Occurrence of Milk fever(%)
FP	5	1972	36802.00	1.41	87
TO1		3100	131310.00	2.42	0
TO2		2927	98990.00	2.12	0

Description of the results: Both technologies significantly improve milk yield, with TO1 being the best. TO1 gives the highest net profit, more than tripling returns compared to FP. Both technologies completely eliminate milk fever, a major health disorder in dairy animals

9. Constrains: -

10. Feed back of the farmers involved : Needs consistent feeding for 21 days (pre and post calving). Cows sometimes refuse feed due to salty/bitter taste. Higher initial investment but much higher returns. Farmers reported that No downer cow after calving, animal eats well and milk let down improved.

11. Feed back to the scientist who developed the technology : Scientifically robust, timed precisely around calving. Complete prevention of milk fever (0% occurrence). It can be recommended for organized farms with good management.

4.1.19. Assessment of Milk fat modulator in milch cow

1. Thematic area : Livestock Production Management
2. Title : **Assessment of Milk fat modulator in milch cow**
3. Scientists involved : Subject Matter Specialist (Animal Science).
4. Details of farming situation : Not applicable
5. **Problem definition / description:**
   - Low milk fat content
   - Low market price

6. Technology Assessed:

TO 1 : OmeB supplement: The supplement was formulated using phyto based agricultural waste. The concentrate mixture containing OmeB can be fed in the form of slurry before morning and evening milking.

TO 2 : Samvridhi : Feed supplement named "Samvriddhi" is improving fat and SNF in Milk of dairy animals.

FP : Feeding of only concentrated feed

7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	OmeB supplement	100 Kg	10000.00
2	Samvridhi	100 Kg	14000.00
3	Field board	5 Nos	1504.00
Total Rs.			**25504.00**

8. Results:

Table 1: Performance of the technology

Technology Option	No. of trials	Production Milk Yield/lactation	Net Return (Rs.)	BCR	Fat % increase
FP	5	1858	39904.00	1.45	-
TO1		3420	148670.00	2.60	42
TO2		2948	117790.00	2.35	28

Description of the results: TO1 (OmeB) demonstrates that phyto-based agricultural waste can be valorized into a high-performance dairy supplement, outperforming TO2 in yield, fat and profitability.

9. Constrains: -

10. Feed back of the farmers involved : Milk yield went up noticeably within 2–3 weeks. Fat percentage increased got better price from dairy cooperative. Feeding twice a day as slurry is manageable but takes some time. Cows liked the taste and no refusal.

11. Feed back to the scientist who developed the technology :
The Slurry form of product may be converted in to powder form for better palatability and absorption.

4.1.20. Assessment of anionic powder for milk fever in High yielding milch cow (TSP)

1. Thematic area : Livestock Production Management

2. Title : **Assessment of anionic powder for milk fever in High yielding milch cow**

3. Scientists involved : Subject Matter Specialist (Animal Science).

4. Details of farming situation : Not applicable

5. **Problem definition / description:**

Milk fever is one of the transition period metabolic disease most common in mature dairy cows which occurs due to the deficiency of calcium

6. Technology Assessed:

TO 1 : TANUVAS PAM 21 : Feeding of TANUVAS PAM 21 to transition cows from 16 days prior to calving to 5 days post calving through dietary cationic anionic balance in the ration reduces the incidence of milk fever

TO 2 : Anionic Mishran AFS : 100gm once or 50gm twice a day for 3-4 weeks before calving in pregnant dry animals

FP : No Feeding of Anionic powder

7. Critical inputs given:

S.No.	Name of the input	Quantity	Value (Rs.)
1	TANUVAS PAM 21	50 Kg	7500.00
2	Anionic mishran AFS	25 Kg	4750.00
3	Field board	5 Nos	1504.00
Total Rs.			**13754.00**

8. Results:

Table 1: Performance of the technology

Technology Option	No. of trials	Production Milk yield(lits)/ lactation	Net Return (Rs.)	BCR	Occurrence of Milk fever (%)
FP	5	1892	39482.00	1.47	88
TO1		3270	140212.00	2.52	0
TO2		2938	108290.00	2.23	0

Description of the results: Both technologies significantly improve milk yield, with TO1 being the best. TO1 gives the highest net profit, more than tripling returns compared to FP. Both technologies completely eliminate milk fever, a major health disorder in dairy animals

9. Constrains: -

10. Feed back of the farmers involved : Needs consistent feeding for 21 days (pre and post calving). Higher initial investment but much higher returns. Farmers reported that no downer cow after calving, animal eats well and milk let down improved.

11. Feed back to the scientist who developed the technology : The Slurry form of product may be converted in to powder form for better palatability and absorption.

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 RNR15048 paddy	▪ Slender rice suitable for all season and 67% head rice recovery	▪ Conduction of training, demonstration, Exhibition and Mass media coverage.	964	32624	26456
2	Paddy	IPDM	Integrated pest and disease management in paddy	▪ High yielding, pest (Stem borer) and disease (BLB) resistant variety may be developed.	▪ Report on results given. Suggested popularization methods viz., Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage	102	3924	3114
3	Finger millet	Varietal demonstration	Demonstration of ATL 2 Little millet variety	▪ Drought tolerant, suitable for mechanical harvesting and suitable for rainfed and irrigated conditions	▪ Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage	54	3694	1265
4	Blackgram	Varietal demonstration	Demonstration of VBN- 11 blackgram	▪ Powdery mildew resistant variety may be develop.	▪ Supply of seeds at low cost. ▪ Conduction of training, demonstration, Exhibition and Mass media coverage.	182	1420	524

5	Ridge gourd	Varietal demonstration	Demonstration of ridge gourd variety MDU 1	▪ Higher yielder. Improved varieties with resistance to ruit borer may be developed.	▪ Report on results given. Suggested popularisation methods viz., Supply of seeds at subsidized rate, Conduction of training, demonstration and Mass media coverage.	35	415	89
6	Chilli	IPDM	Demonstration of IPDM in chillies	▪ Pest and Disease resistant/Tolerant hybrids may be developed	▪ Report on results given. Suggested popularization methods viz., Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage.	28	425	102
7	Brinjal	Varietal demonstration	Demonstration of improved brinjal variety VRM (Br)2	▪ Harvesting was easy due to absence of spiny. ▪ Varieties with shoot and fruit borer resistance may be developed.	▪ Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, ▪ Conduction of training and demonstration.	72	685	179
8	Banana	IPDM	Integrated pest and disease Management in banana	▪ High yielding Panama & Sigatokka resistant varieties may developed	▪ Report on results given. Suggested popularization methods viz., Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage.	22	422	189
9	Tuberose	Crop management	Integrated Crop Management in Tuberose	▪ ICM technologies are economically viable and yielding best results at field level.	Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of	48	428	152

					training, demonstration, Exhibition and Mass media coverage.			
10	Turmeric	Crop management	Demonstration of TNAU MN mixture	TNAU Micro nutrient mixture application improves yield, quality and diseased resistance.	Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of training, demonstration, Exhibition and Mass media coverage.	62	541	193
11	Millet	Value addition	Preparation of convenience food (Health mix, Adai mix, Laddu mix,Kali mix)	▪ District wise marketing avenues may develop for farmer's level value added products.	▪ Trainings, Demonstration, Exhibition, Mass media coverage.	57	366	-

B. Details of FLD implemented during the reporting period

1. Demonstration of TNAU Vigour plus seed booster

Crop/Enterprise : Groundnut

Thematic area : Crop Production and Management

Technology Demonstrated :

- TNAU Vigour plus

Season and year : Rabi 2024

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi 2024	Clay loam	L	H	H	138.3	7

Source of fund : ICAR

No of locations (Villages) : 1 (Kilnelli)

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:

Groundnut seed treated with TNAU Vigour plus seed Booster showed good germination percentage of 81% leads to more yield of 23.76q/ha. Cultivation of Groundnut seed treated with TNAU Vigour plus seed Booster will automatically increase the net income of the farmer

Feedback of the Scientist:

Farmer should get knowledge about TNAU Vigour plus seed Booster and its availability.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	2	24.11.24 28.11.24	25	-
2	Media coverage	1	28.11.24		Local news

2. Demonstration of TNAU Sugarcane Booster

Crop/Enterprise : Sugarcane

Thematic area : Crop Production and Management

Technology Demonstrated :

- ❖ Spraying of sugarcane booster at 1,1.5 and 2 kg/acre at 45,60 and 75 days after planting in 200 litres of water

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 2024-25	Clay loam	L	H	M	1034.4	46

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:

TNAU Sugarcane Booster was tested in Sugarcane variety CO86032. It enhance the Cane yield upto 16%. The yield of this variety is about 106.91qtl/ha while, other untreated possess 89.65qtl/ha. The net income of the farmer increased from Rs.1,26,690 to Rs.1,86,286.

Feedback of the Scientist:

Farmer should gain knowledge about TNAU Sugarcane Booster and its mode of purchase.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	2	06.09.25 17.12.25	37	-
2	Media coverage	1	18.08.24		Public app

3. Demonstration of Paddy variety RNR 15048

Crop/Enterprise : Paddy

Thematic area : Varietal demonstration

Technology Demonstrated :

- Paddy variety RNR 15048

Season and year : Rabi 2024-25

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi 2024-25	Sandy loam	L	M	H	118	7

Source of fund : ICAR

No of locations (Villages) : 1 (Arungunam)

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 paddy variety RNR15048 shows higher yield of 56.7qtl/ha when compared to BPT 5204 variety which yield 46.09qtl/ha. So, 18.7% of yield increased from this variety. So, the net income of the farmer raised from Rs.36,293 to Rs.68,029.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	4	29.07.25 26.08.25 25.09.25 23.10.25	72	-

4. Demonstration of Redgram variety CO 8

Crop/Enterprise : Redgram

Thematic area : Varietal demonstration

Technology Demonstrated :

- ❖ Redgram variety CO 8

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 2024	Sandy loam	L	H	H	423.4	12

Source of fund : ICAR

No of locations (Villages) : 1 (Senal)

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 Redgram variety CO8 gives higher yield of 15.64qtl/ha. The net income of the variety is Rs.81,177. The yield from this variety raised as 19.4% when compared to the old local variety.

Feedback of the Scientist:

The Redgram variety CO8 production should be improved and seed availability should be made ensured during season.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	6	11.09.24 20.09.24	42	-
2	Media coverage	1	09.03.25		Local news

5. Demonstration of Finger millet variety ATL 2

Crop : Finger millet
Thematic area : Varietal demonstration

Technology demonstrated :

- Finger millet variety ATL 2

Season and year : Kharif 2025-26
Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Rainfed	Kharif 2025-26	Clay loam	L	H	M	504.32	15

Source of fund : ICAR

No of locations (Villages) : 1 (Sanikkavadi)

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 : High yielding more preferred in the market.

Feedback of the Scientist : The Finger millet variety viz., ATL 2 is more suitable for the locality. Seed production should be increased.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	2	02.12.25, 24.10.25,	32	-

6. Demonstration of TNAU Zinc solubilizing bacterial biofertilizer

Crop : Paddy
Thematic area : Crop Production and Management

Technology demonstrated :

- TNAU Zinc solubilizing bacterial biofertilizer

Season and year : Kharif 2025-26
Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif 2025-26	Clay loam	L	M	M	618.4	12

Source of fund : ICAR

No of locations (Villages) : 1 (Senal)

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 : Seed treatment with TNAU Zinc solubilizing bacterial biofertilizer improves the paddy yield.

Feedback of the Scientist : TNAU Zinc solubilizing bacterial biofertilizer should be widely spread among the farmers like other biofertilizers.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	4	23.07.25, 29.07.25, 26.08.25, 25.09.25	72	-
2	Media coverage	1	06.12.25	-	Local newspaper

7. Demonstration of CSR grow sure inoculants in bhendi

Crop : Bhendi

Thematic area : Crop Production and Management

Technology demonstrated :

- CSR grow sure inoculants in bhendi

Season and year : Rabi 2024-25

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	322.8	6

Source of fund : ICAR

No of locations (Villages) : 1 (Somanthangal)

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 : CSR application successfully boosted productivity to 206.9 Q/ha, delivering a net profit of Rs.124117.

Feedback of the Scientist : Applications of CSR GrowSure resulted in an 18.05% higher yield compared to NPK fertilizers, achieving a Benefit-Cost Ratio (BCR) of 2.31 and enhancing overall fruit quality.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	2	24.01.2025, 06.09.2025	20	-
2	Media coverage	1	25.01.2025	-	Public digital

8. Demonstration of Bottlegourd variety PLR 2

Crop : Bottlegourd

Thematic area : Varietal demonstration

Technology demonstrated .

- Bottlegourd variety PLR 2

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	H	H	423.4	8

Source of fund : ICAR

No of locations (Villages) : 1 (Sathiyavadi)

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 bottle gourd variety PLR 2 produces a yield of 363.3 Q/ha, significantly outperforming local varieties. With a net return of Rs.208155/ha, it is highly valued for its superior fruit quality.

Feedback of the Scientist : The PLR 2 bottle gourd variety achieved a 20.6% yield increase over traditional farming practices, which averaged 301.1 Q/ha. This performance resulted in a Benefit-Cost Ratio (BCR) of 2.78.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	3	22.01.2025, 28.07.2025, 17.10.2025,	57	-
2	Media coverage	1	22.01.2025	-	Public TV

9. Demonstration of Integrated Crop Management in chilli

Crop : Chilli

Thematic area : Crop Production and Management

Technology demonstrated :

- FYM 25 t/ha, NPK application based on soil test.
- Treat the seeds with trichoderma @ 4g/kg
- Foliar spray application of micro nutrient mixture @0.5%
- Spray tricontanol @1.25 ml/lit
- Yield – 25 t/ha of green chilli.

Season and year : Rabi 2024-25

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	286.6	6

Source of fund : ICAR

No of locations (Villages) : 1 (Thensenthamangalam)

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 adoption of integrated crop technologies resulted in a superior yield of 239.3 quintals per hectare and a net income of Rs. 222055. Furthermore, the enhanced fruit quality secured a premium market price.

Feedback of the Scientist : In chilli cultivation, the implementation of advanced crop management technologies led to a 17.02% increase in yield compared to traditional farming practices, resulting in a Benefit-Cost Ratio (BCR) of 2.22.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	2	25.02.2025 18.10.2025	23	-
2	Media coverage	1	26.02.2025		Public digital

10. Demonstration of Mung bean Yellow Mosaic virus resistant black gram variety LBG 884

Crop : Blackgram
Thematic area : Varietal demonstration
Technology demonstrated : Cultivation of LBG 884 blackgram
Season and year : Rabi 2024
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	238.72	6

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
10	-	10	4	4	-

Feedback from farmers : Cultivation of Blackgram LBG 884 variety recorded higher yield 9.85 q/ha and net income of Rs. 42430.00 with a BCR 2.23. The variety shows the resistant against the Mungbean Yellow Mosaic disease and recorded less incidence 6.97 % compared with local variety 28.96 %.

Feedback of the Scientist : The Blackgram variety LBG 884 reduced the incidence of YMV diseases by 75.93 percent. Variety found increasing the yield by 39.95 % and farmers gained additional net return of Rs.20189.00/ha.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Farmers Training	3	14.02.2025 18.06.2025 10.11.2025	51	-
2	Media coverage	1	15.02.2025	-	-
3	Extension functionaries	1	14.11.2025	20	

11. Demonstration of IPDM in Chilli

Crop : Chilli

Thematic area : Integrated Pest Management

Technology demonstrated :

- Seed treatment with *Bacillus subtilis* (*Bbv*57) @ 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 + Difenoconazole 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 2024

Farming situation : Iriigated

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	M	356.93	13

Source of fund : ICAR

No of locations (Villages) : 1 (Manavaram)

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	2	2	-

Feedback from farmers : The IPDM technologies in Chilli enhanced the yield by 223.43 q/ha with a net income Rs. 290300.00/ha and reduced the pest and disease incidence.

Feedback of the Scientist : The IPDM Technologies found effective against the pest and diseases viz, Thrips (5.25 %), Aphid (6.13 %) and Mites (5.58 %).

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	3	09.01.2025 27.10.2025 12.11.2025	57	-
2	Extension functionaries	1	14.11.2025	20	

12. Demonstration of IDM for false smut in Rice

Crop : Paddy

Thematic area : Integrated Disease Management

Technology demonstrated :

- Seed treatment with carbendazim 2.0g/kg of seeds.
- Foliar spraying of Azoxystrobin 7.1% + Propiconazole 11.9 % W/W SE @ 500 ml/ha a tillering and early booting stage

Season and year : Kharif 2025

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	H	H	743.54	22

Source of fund : ICAR

No of locations (Villages) : 1 (Siruveliyanallur)

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 : The IDM technologies for the management of false smut disease in paddy increased the yield 59.54 q/ha and net income of Rs. 72748.00 with a BCR 2.25. Adoption of IDM technologies found less incidence of false smut by 5.66 % and reduced pesticides requirement.

Feedback of the Scientist : The IDM Technologies reduced the incidence of false smut disease by 70.34 %. Cultivation of Paddy with IDM technologies found increasing the yield by 11.96 % and farmers gained additional net return of Rs. 18240.00 /ha.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Farmers Training	6	03.03.2025 10.03.2025 26.06.2025 16.07.2025 26.08.2025 30.09.2025	93	-
2	Extension functionaries	1	14.11.2025	20	-

13. Demonstration of management of Root rot disease in Groundnut

Crop : Groundnut

Thematic area : Integrated Disease Management

Technology demonstrated :

- Summer ploughing
- Seed treatment with Carbendazim @2 g/kg of seed
- Soil application of *Bacillus subtilis* and *Trichoderma asperellum* @ 2.5 kg/ha mixed with 50 kg FYM on 30 DAS.
- Soil drench with carbendazim @ 1 g / l

Season and year : Kharif 2025

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	530.9	18

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 : The IDM technologies for the management of Root rot disease in Groundnut increased the yield 14.45 percent and less incidence of root rot by 7.01%.

Feedback of the Scientist : The technologies recorded higher yield 20.47 q/ha and net returns Rs. 89161.00 with a BCR of 2.20. It also effectively reduced the incidence of root rot by 71.01 percent.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	3	07.07.2025 25.08.2025 27.10.2025	61	-
2	Extension functionaries	1	14.11.2025	20	-

14. Demonstration of Megatex spray for management of Ectoparasite in Cow

Crop/Enterprises : Cow

Thematic area : Disease Management

Technology demonstrated : Megatex spray for management of Ectoparasite in Cow

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

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (No of Spray)	Actual area (No of Spray)	Justification for shortfall if any
10	10	-	100	100	-

Feedback from farmers : Farmers noticed that animals stop rubbing against walls or flicking their tails shortly after application. There is often observable death of ticks and lice, and a reduction in skin lesions or scabs over a few days. The animal's coat often looks shinier and healthier within a week or two.

Feedback of the Scientist : The megatex spray performed high percentage kill (90-100% reduction) of common ectoparasites like cattle tick and Sarcoptes within 24-48 hours. They might note that controlling parasites reduces anemia and stress, indirectly leading to an increase in milk production. Scientists often recommend rotating Megatex with different modes of action (e.g., synthetic pyrethroids vs. organophosphates) to prevent tick resistance, rather than using it exclusively.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	1	11.08.25	14	-
2	Method Demonstration	1	11.08.25	25	-
3	Animal Health camp	2	05.02.25 21.03.25	110	665 Animals covered

15. Demonstration of TANUVAS GRAND to improve milk production in Cow

Crop/Enterprises : Cow

Thematic area : Livestock Production Management

Technology demonstrated : TANUVAS GRAND to improve milk production in Cow

Season and year : Rabi 2024

Farming situation : -

Source of fund : ICAR

No of locations (Villages) : 1 (Thensenthamangalam)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (TANUVAS Grand Nos.)	Actual area (TANUVAS Grand Nos.)	Justification for shortfall if any
10	10	-	100 Bottles	100 Bottles	-

Feedback from farmers : Farmer expressed that now we get an additional 500 ml of milk per cow per day. Beyond milk production, farmers have observed better overall health in their cattle. Farmers reported benefits such as increased digestibility, solid state dung consistency, regularization of the oestrus cycle and improvement in fertility.

Feedback of the Scientist : The scientist noted a reduction in panting or labored breathing caused by Sub Acute Ruminal Acidosis (SARA).

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	3	26.06.25 25.09.25 13.11.25	53	-
2	Method Demonstration	1	25.09.25	23	-
3	Animal Health Camp	1	29.09.25	50	172 animals covered

16. Demonstration of Star Chicken under backyard condition

Crop/Enterprises : Poultry

Thematic area : Poultry Production Management

Technology demonstrated : Star Chicken under backyard condition.

Season and year : Kharif 2024

Farming situation : -

Source of fund : ICAR

No of locations (Villages) : 1 (Veliyanallur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (Month old Chicks Nos.)	Actual area (Month old Chicks Nos.)	Justification for shortfall if any
10	10	-	250	250	-

Feedback from farmers : Farmers consistently report a significant increase in household income due to the sale of surplus eggs and meat. The price of birds is often 3-4 times higher during high-demand seasons (like winter). Farmers appreciate that these birds can still scavenge for feed (insects, kitchen waste), reducing the need for expensive commercial feed.

Feedback of the Scientist : Beyond income, it is enhanced family nutritional security, providing a regular source of protein (eggs and meat). As the birds are usually reared near the household, the activity is often managed by women, giving them a source of independent income and decision-making power

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	5	20.02.25, 10.03.25 24.03.25, 16.07.25 14.10.25	71	-
2	Vocational Training(Rural youth)	2	17.02.25 to 19.02.25 25.11.25 to 27.11.25	27	
3	Method Demonstration	1	10.03.25	24	-
4	Exposure Visit to PRS, Chennai	1	21.02.25	25	-

17. Demonstration of TANUVAS GRAND to improve milk production in Cow (TSP)

Crop/Enterprises : Cow

Thematic area : Livestock Production Management

Technology demonstrated : TANUVAS GRAND to improve milk production in Cow

Season and year : Rabi 2024

Farming situation : -

Source of fund : ICAR

No of locations (Villages) : 1 (Palamarathur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (TANUVAS Grand Nos.)	Actual area (TANUVAS Grand Nos.)	Justification for shortfall if any
10	10	-	100 Bottles	100 Bottles	-

Feedback from farmers : Farmer expressed that now we get an additional 500 ml of milk per cow per day. Beyond milk production, farmers have observed better overall health in their cattle. Farmers reported benefits such as increased digestibility, solid state dung consistency, regularization of the oestrus cycle and improvement in fertility.

Feedback of the Scientist : The scientist noted a reduction in panting or labored breathing caused by Sub Acute Ruminal Acidosis (SARA).

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	1	26.03.25	15	-
2	Method Demonstration	1	20.03.25	20	-
3	Animal Health camp	2	20.03.25 14.10.25	104	397 animals covered

18. Demonstration of sugarcane jam

Crop : Suagarcane

Thematic area : Value addition

Technology demonstrated : Demonstration of Sugarcane Jam.

Season and year : Rabi

Farming situation : -

Source of fund : ICAR

No of locations (Villages) : 1 (Kapalur)

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	0	-	-	-

Feedback from farmers : Scope for selling in local markets, fairs and exhibitions.

Feedback of the Scientist : Taste & acceptability: Consumears liked the natural sweetness and unique falvour. It has high shelf life of 90 days. The BCR recorded was 2.47.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	1	14.02.25	6	-

19. Demonstration on herbal garden

Crop : Medicinal plants

Thematic area : Herbal garden

Technology demonstrated : Establishment of herbal garden with 10 species.

Season and year : Rabi

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
5	5	0	-	-	-

Feedback from farmers : Very useful for our family health. Using these plants regularly and spending less on medicine.

Feedback of the Scientist : The herbal garden model is a sustainable and replicable intervention for enhancing household health and livelihood security. The BCR recorded was 2.52.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	2	19.08.25, 06.09.25	50	-

20. Demonstration on herbal garden(TSP)

Crop : Medicinal plants

Thematic area : Herbal garden

Technology demonstrated : Establishment of herbal garden with 10 species.

Season and year : Kharif

Farming situation : -

Source of fund : ICAR

No of locations (Villages) : 1 (Jamunamarathur)

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	0	-	-	-

Feedback from farmers : Reduced dependency on distant medical facilities.

Feedback of the Scientist : The herbal garden model is a sustainable and replicable intervention for enhancing household health and livelihood security. The BCR recorded was 2.29.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	1	15.12.25	10	-

21. Demonstration on millet based value added products – EDP mode

Crop : Millet

Thematic area : Value addition

Technology demonstrated : Millet Extruded Products

Season and year : Rabi

Farming situation : -

Source of fund : ICAR

No of locations (Villages) : 1 (Senal)

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	0	-	-	-

Feedback from farmers : products are easy to prepare using locally available raw materials, good taste and acceptability.

Feedback of the Scientist : The demonstrated technologies are simple, cost effective and suitable for rural and household level enterprise. The BCR recorded was 2.05.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	3	22.02.25, 04.07.25, 23.07.25	50	-

22. Demonstration on millet based value added products – EDP mode (TSP)

Crop	:	Millet
Thematic area	:	Value addition
Technology demonstrated	**:**	Millet Instant Mix
Season and year	:	Rabi
Farming situation	:	-
Source of fund	:	ICAR
No of locations (Villages)	:	1 (Kovilur)

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	0	-	-	-

Feedback from farmers **:** Instant mixes helped increase the product value by 2-3 times compared to raw millet sale.

Feedback of the Scientist **:** Millet based instant mix preparation provides regular additional income at household level. The BCR recorded was 3.27.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Farmers Training	1	05.03.25	13	-

4.3 Extension Studies

1. Impact Study: Livelihood Entrepreneurship Development Programme (LEDP) for SHG Women in Thellar Block

1. Introduction

The Krishi Vigyan Kendra (KVK) in Thiruvannamalai, a district-level Farm Science Centre established in 1991, is mandated to provide need-based, skill-oriented vocational training in agriculture and allied fields. A key focus is creating awareness and promoting millet production and its value addition. In line with this, a Livelihood Entrepreneurship Development Programme (LEDP) was conducted for women from Self-Help Groups (SHGs) in the Thellar block. The core objective of the LEDP was to empower rural women by equipping them with the skills to start their own micro-enterprises focused on value addition in traditional rice, millets, and milk, thereby strengthening rural livelihoods and promoting women's empowerment.

The program was financially supported by the National Bank for Agriculture and Rural Development (NABARD), and local bankers, a key institution that provides term loan support for establishing micro enterprsises.

2. Objectives

- To assess the **effectiveness** of the LEDP in imparting skills for value addition in traditional rice, millets, and milk.
- To evaluate the **outcome impact** of the training in terms of venture creation, bank linkage, and access to formal credit for business expansion.
- To identify the **strategic achievements** of the program, including product diversification and brand building.
- To provide actionable **recommendations** for improving the scale and impact of future training programs.

3. Methodology

- **Study Area:** Thellar block, Thiruvannamalai district, Tamil Nadu.
- **Sample Size:** All 60 SHG women participants who completed the 20-day LEDP training program.
- **Data Collection:** This analysis is based on program data provided, which includes the number of participants and post-training outcomes on enterprise creation and bank linkage.

4. Findings and Discussion

The following table summarizes the key input, output, and impact findings of the program.

Category	Salient Findings
Training Input & Output	▪ **Target Group:** 60 women from Self-Help Groups (SHGs) in Thellar block were enrolled. ▪ **Training Duration:** A 20-day intensive program focused on value addition in traditional rice, millets, and milk. The training covered practical skills such as product preparation, preservation, packaging, and basic business management.
Immediate Impact	▪ **Skill Enhancement:** Participants acquired hands-on skills in processing raw agricultural produce into value-added products. ▪ **Product Diversification:** The training enabled women to create a diverse range of products, including millet health mix, millet laddoo, and karuppu kavuni kanji (a traditional rice-based fermented porridge)**.** This product range is a strategic mix of high-demand health foods and traditional staples. ▪ **Knowledge Gain:** Women gained knowledge about food safety standards, FSSAI licensing, branding, and marketing strategies, which are crucial for running a successful enterprise.
Outcome Impact	▪ **Enterprise Creation:** A significant **58% (35 out of 60)** of the trained women successfully started their own micro-enterprises. These ventures focus on producing and selling the value-added products they learned to make. ▪ **Bank Linkage & Financial Inclusion:** The program successfully facilitated bank linkages for all 35 entrepreneurs**.** This is a critical achievement, as access to institutional credit is a major enabler for micro-enterprises. The SHG-Bank Linkage Programme, launched by NABARD, is recognized as a cost-effective mechanism for providing financial services to the poor. ▪ **Access to Growth Capital:** As a result of this linkage, the entrepreneurs have been sanctioned bank loans of up to ₹35 lakhs for business expansion**.** This significant capital injection will allow them to scale up production, invest in better equipment, and expand their market reach. This is a strong indicator of the banks' confidence in the viability of the women-led enterprises. ▪ **Brand Building for Market Differentiation:** The entrepreneurs are in the process of securing a trademark for their collective brand, "Thanushree". A trademark legally protects the brand name and logo, giving the women exclusive rights to use them and preventing others from copying them. This is a crucial step in building brand recognition, customer trust, and a distinct identity in the marketplace,

	which is essential for long-term success. ▪ **Income Generation:** The new micro-enterprises are generating sustainable income for the women, contributing to household economic stability. Experience from similar millet-based enterprises shows that a monthly net profit of ₹40,000–45,000 is achievable by producing and selling about 350 kg of various products. ▪ **Empowerment:** Beyond income, the program has fostered confidence, leadership, and a sense of financial independence among the women.
Key Constraints	▪ **Initial Capital:** Despite the loan sanction, disbursement and utilization of funds can sometimes face delays, which can hinder immediate expansion plans. ▪ **Market Access:** While the training covered marketing, establishing consistent and profitable market channels can be difficult for new entrepreneurs.

5. Conclusion

The Livelihood Entrepreneurship Development Programme (LEDP) in Thellar block has been highly successful in translating skill training into tangible economic outcomes. With over half of the participants launching their own businesses, securing vital bank credit, and even accessing substantial growth capital, the program has effectively created a new cadre of women entrepreneurs.

The strategic focus on product diversification, brand building through trademark registration, and facilitating access to formal banking channels has laid a robust foundation for a sustainable and scalable women-led enterprise. This initiative serves as a powerful model for how targeted skill development, coupled with financial inclusion and strategic branding, can drive sustainable rural livelihoods and women's empowerment.

6. Recommendations

- **Fast-Track Trademark Registration:** The trademark application for "Thanushree" should be prioritized. The process can take 18-24 months, so it's advisable to engage a trademark attorney to navigate the process efficiently and respond to any objections promptly.
- **Establish a Formal Mentorship Program:** A dedicated team should provide continuous mentorship to the 35 entrepreneurs. This would include guidance on production efficiency, quality control, bookkeeping, and troubleshooting operational issues.
- **Strengthen Market Linkages:** Forge formal partnerships with local retailers, agricultural produce markets, and online platforms. Organizing regular "buyer-seller meets" and facilitating participation in local fairs and exhibitions, as done by KVK Thiruvannamalai, would help entrepreneur’s secure better prices and consistent demand.

5. Training/workshops/seminars etc. attended by KVK staff

Name of the staff	Title	Dates	Duration	Organized by
Dr. K. Mayakrishnan SMS Animal Science	Fourteenth Asian Fisheries and Aquaculture forum	12-02-2025 to 15-02-2025	4	ICAR Convention Centre, New Delhi
Mr.O.Sekar Programme Assistant (Computer)	Refresher Training Programme	06-03-2025 to 07-03-2025	2	TNAU, Coimbatore
Mr.V.Suresh SS &Head Mr.P.Narayanan SMS-Plant rotection	Research-Extension Interface workshop for KVK of Tamil Nadu and Puducherry	27.03.2025 to 28.03.2025	2	TNAU, Coimbatore
Mr.P.Narayanan SMS-Plant Protection	Annual Action Plan Workshop of 2025-26	24.04.2025 to 25.04.2025	2	ICAR - ATARI, Hyderabad & TNAU, Coimbatore.
Mr.P.Narayanan SMS-Plant Protection Mr.R.Vijayakumar SMS Horticulture	Natural farming for Scientists of KVK and Farmer Master Trainers	17.06.2025 to 20.06.2025	4	NOFRC, TNAU, Coimbatore
Mr.V.Suresh SS &Head	State level workshop on Developing Climate Resilient farming	17-06-2025 to 18-06-2025	2	Agro climate Researach Centre, TNAU, Coimbatore & ATARI, Hyderabad
Mr.P.Narayanan SMS-Plant Protection	Online training on Banana Pseudostem Injector	21.08.2025	1	NAARM, Hyderabad,
Mrs.T.Margaret SMS Home Science	Online training on AI and IoT based Mini hybrid solar dryer	24-08-2025	1	NAARM, Hyderabad,
Dr. K. Mayakrishnan SMS Animal Science	Veterinary Science: Techniques and Best Practices to improve the livestock productivity in field level	30-10-2025 to 31-10-2025	2	TANUVAS, Chennai, ICAR-ATARI, Hyderabad and ICAR-KVK, Kancheepuram

6. Details of sponsored projects/programmes implemented by KVK

S. No	Title of the programme	Sponsoring agency	Objectives	Duration (Days)	Amount (Rs)
1	Hygienic handling practices and value addition of fish and fishery products	National Fisheries Development Board, Hyderabad	▪ To create awareness on hygenic handling practices ▪ To impart the knowledge on value added products in fish. ▪ To improve the income of marginalized farmers	5	95750.00
2	Advanced production technologies of composite fish culture for the benefit of farming community	National Fisheries Development Board, Hyderabad	▪ To sensitise the farmer on composite fish culture ▪ To develop master trainer on inland fish farming ▪ To create marketing linkage for fisherman society	5	83250.00
3	Production and Processing of Medicinal and Aromatic Plants	ATMA, Thiruvannamalai	▪ Improving soil fertility, soil microbes and crop rotation ▪ Production technology of medicinal plants ▪ To promote the propagation techniques in Medicinal and aromatice plants ▪ To promote the primary Processing of medicinal and aromatic products	6	42000.00
4	Organic cultivator	TNSDC, Tamil Nadu	▪ To ensure sustainable crop production and increase income levels of farmers by adopting organic farming. ▪ To encourage, promote and development of organic farming system in the district. ▪ To encourage the use of organic and biological sources (biofertilizers, organic manure, compost, bio-pesticides, bio-control agents etc.,) in crop production. ▪ To promote an alternative strategy over chemical farming.	27	141750.00

Detailed report of each project/programme separately: Annexure II

7. Success stories

1. Sowing Wealth: The Paddy RNR 15048 Story

Farmer Detail : Mr. A.Vijayan S/o Ayyappan
Vellakulam village, Vembakkam taluk.
Thiruvannamalai district.

1. Situation analysis/Problem statement



Mr.A.Vijayan S/o Mr. Ayyappan aged 62 from Vellakulam village of Vembakkam block is holding one hectare. Earlier, he cultivated the traditional NLR variety, which gave moderate yields and limited income. He has been cultivating NLR variety in one hectare for the past 10 years and got yield of nearly 48.2 quintals. His net income was Rs.46,540. He didn't adopt any new technology and he had no idea about use of any micronutrients and herbicides. He didn't satisfy by his regular income. So, he approached KVK for training programmes. Switching to RNR15048, he noticed more grains per plant, healthier growth, and a significant boost in yield.

2. Plan, Implement and Support:

He had attended five training programme on ICM in Paddy organized by the KVK. Training covers seed treatment practices, irrigation management, weed management, nutrient management and pest and disease management practices. The RNR 15048 Paddy variety has been introduced to the farmer in the year 2025 in *Kharif* season with improved practices. Usage of manures and fertilizers, preparation of bio inputs were also recommended. With the proper guidance of KVK, he got an idea to improve the yield and income by reducing the cost of critical inputs.

3. Intervention Technology: The farmer adopted the following improved practices.

- Seed treatment with biofertilizers like *Azospirillum,Phosphobacteria* before sowing
- Soil test based fertilizer application.
- Spraying of Rice Reap.
- Usage of Herbicides.

4. Output:

By witnessing the economic benefits achieved by this farmer, other farmers are also showing interest in cultivation of Paddy variety RNR 15048 to increase the yield. Due to positive result of the variety a total of 264 farmers used the same variety and got guidance from the KVK for the increased yield and income.

5. Outcome:

Following the guidance given by our scientists he started the cultivation of high yielding Paddy variety RNR 15048. The yield increased to 58.9 quintals and net income raised to **Rs. 76,720/-** and he also involved in seed production.

6. Impact:

By seeing the success of this farmer other farmers from the same village showed interest to use the new variety Paddy RNR 15048 for the seed production.

B. Transforming vegetable production into a 'thriving economic enterprise.

Farmer's details : Mr. M. Ezhilan, S/o. Mani
Myanandal village, Arni block,
Thiruvannamalai Dist – 604501
Mobile No.: +91 9994807595

Situation analysis/Problem statement

Mr. Ezhilan, a farmer from Myanandal village in the Arni block of Thiruvannamalai district, specializes in the commercial cultivation of tomatoes, brinjal, various gourds, and high-density guava plantations.

Despite his expertise, he is currently encountering significant obstacles, including persistent nutrient deficiencies, crop pest and disease outbreaks, and issues regarding overall produce quality. These production challenges have directly hindered his and fellow farmers yield, quality and led to suboptimal financial returns.

Plan, implementation of activities and support by KVK



To address local agricultural challenges, the Krishi Vigyan Kendra (KVK) organized a series of training programs and extension activities. The farmer participated in comprehensive sessions on Integrated Crop Management (ICM), Integrated Nutrient Management (INM), and Integrated Pest Management (IPM), with a specific focus on vegetable production. His practical knowledge was further bolstered by visits to demonstration units at the Indian Institute of Horticultural Research (Bangalore) and Tamil Nadu Agricultural University (Coimbatore), where he consulted with leading experts.



Following KVK's guidance, he adopted several best practices, including the application of "Vegetable Special" a specialized micronutrient mixture, seed treatment using bio-control agents and the strategic use of pest traps. By implementing these cost-effective, sustainable techniques, the farmer successfully developed a strategy to boost crop yields while significantly reducing production costs.

Intervention Technology

The farmer integrated several advanced agricultural practices and technologies into his cultivation cycle to optimize productivity:

- **Enhanced Nutrition:** Utilized foliar sprays of "Vegetable Special" and enriched soil fertility through a combination of organic inputs, vermicompost, and neem cake.
- **Bio-Protective Measures:** Adopted sustainable seed treatments using *Bacillus subtilis* and *Trichoderma viride* to mitigate soil-borne diseases.
- **Strategic Pest Management:** Utilized targeted traps, including pheromone traps and yellow sticky traps, to monitor and manage pest populations.
- **Precision Farming:** Modernized irrigation and soil management by adopting drip irrigation, fertigation, and mulching to maximize water use efficiency, soil moisture retention and arrest the weed populations.



Output:

Following the strategic interventions and technical support provided by the Krishi Vigyan Kendra (KVK) in Thiruvannamalai, the farmer achieved significant success in his vegetable cultivations.
His efforts yielded the following results:

- **Vegetable Production:** Through cultivation on one acre of land, he generated a net profit of Rs. 72,000 from tomato and brinjal crops. An additional 0.5 acres dedicated to gourds provided a net income of Rs. 31,000.
- **High-Density Plantation (HDP):** His 0.5-acre guava orchard, utilizing High-Density Planting techniques, resulted in an annual yield of 5,000 kilograms.

Beyond his personal success, the farmer has frequently shares his expertise and experiences with fellow farmers during various training workshops facilitated by the KVK and the State Department of Horticulture, helping to promote the adoption of these improved agricultural technologies throughout the region.

Outcome:

The economic success achieved by Mr. Ezhilan, a farmer from Myanandal village, has served as a powerful catalyst for the adoption of improved agricultural practices across the region. His achievements have inspired a wider transition, with 145 farmers now implementing these technologies across 181 acres of land. This widespread adoption stands as a significant milestone and a testament to the effectiveness of KVK's outreach and support programs.

Impact



In Myanandal village (Arni block), the acreage dedicated to vegetable cultivation is expanding rapidly, driven by the attractive economic returns associated with these crops. Recognizing this growing interest, the State Department of Horticulture is actively supporting local farmers by providing subsidized access to essential infrastructure and agricultural inputs, including drip irrigation systems, shade net houses, and the establishment of pandal (trellis) structures.

C. Beyond the Spray – A Multi Front War against Paddy Pest and Diseases

Farmer's details : Mr.M.Balasubramaniyan, S/o. Murugan
Karanai village, Anakkavoor block,
Thiruvannamalai Dist – 631701
Mobile No.: +91 9943088506

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.

Shri M.Balasubramaniyan, S/o. Murugan, is a 60-year-old Paddy farmer from Karanai village of Anakkavor block of Thiruvannamalai district. Over the past four decades, he has been engaged in the cultivation of Paddy. However, the farmers are regularly facing the challenges on pest, disease, and non pest problems. As a result of these issues, the yield and income of farmers significantly reduced and the cost and usage of chemical pesticides sky rocketing. In light of these challenges, he sought assistance from the KVK to explore IPDM in Paddy.

Plan, implementation of activities and support by KVK

Considering the problems faced by the farmers in the region, the KVK has conducted On Farm Testing (OFT), Front Line Demonstration (FLD), multiple On and Off campus training programme and frequent field visit of KVK Scientists to address the issues. He has participated in actively in the above programmes, additionally; he visited KVK demonstration units.



Intervention Technology

The farmer adopted the following Integrated Pest and disease management technologies.

- *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
- Installation of Yellow sticky trap @ 5nos/acre
- Installation of Stem borer pheromone trap @ 10 nos/acre
- Need based application of Neem oil @ 3%
- Application of Cartop Hydrochloride 50% SP@ 400 g/ac, Azoxystrobin 25 SC @ 200 ml

Output

As a result of the various interventions and technological support by the KVK Thiruvannamalai, he succeeded in Paddy farming. He has cultivated Paddy in a area of 2.5 acres, resulting in a yield of 60.39 q/ha and a net income of Rs. 74089.00. Additionally the yield get increased by 17.48 percent and reduced the requirement of pesticides cost Rs. 4256.00 per ha. Furthermore, he has been acting 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 realized by Mr. M.Balasubramaniyan from Karanai village have lead to dissemination of IPDM technologies within the locality. Currently, the IPDM technologies spread over an area of 12535 ha with 268 villages in the district. This represents a notable accomplishment for KVK.

Impact

The extent of land dedicated to Paddy cultivation in the district has been growing significantly each year by the quick economic returns. In response to the farmers' interest, the State Department of Agriculture, ATMA and other stakeholders has been providing technical and subsidy assistance by supplying various critical inputs to farmers. The adoption of technologies has seen a notable increase in yield and economics are anticipated to rise in the coming years.

D. Drone Didi – Transforming Lives through Agri-Tech

Name of the Farmer : Mrs.Kavitha W/o. Thirulogachander
Chithathur village and post,
Vembakkam Taluk,
Thiruvannamalai District – 604 410.

Situation analysis/Problem statement:

Mrs. Kavitha, W/o Tirulogachander aged 36, studied up to 10th standard, is a member of Sri Ponniyamman SHG under Mahalir Thittam. She hails from Chithathur village, Vembakkam Taluk. Being landless, she depended on irregular income through VB G RAM G work and agricultural wage labour. 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.Kavitha shown very good interest on KVK programmes and technologies. She participated in the one week Skill training programme organised by KVK in collaboration with FACT since March 2024. In this training she learnt drone operation, agri-spraying techniques, and safety measures.



Intervention technology

After completion of trainings, she provided a drone worth by 3.5 Lakhs, continuous guidance were given for (type of usage of fertilizer and pesticide dose per acre on need basis) field-level support and troubleshooting by KVK team. Then KVK SMS Home Science encouraged to take up drone-based agri-service as an income-generating activity and SHG's platform supported confidence building and local networking.

Output:

She has been successfully trained as a Drone Didi, through which she has acquired technical skills in drone-based agricultural spraying. The training has enhanced her knowledge of modern agricultural technologies and practical applications in the field. With this newly gained expertise and confidence, she is now well prepared and capable of providing efficient drone based services to farmers in her locality.

Outcome

As a result of intervention, she transitioned from unskilled wage labour to a skilled service provider in the field of drone-based agricultural operations. She has successfully established a supplementary livelihood activity through this, enabling her to access seasonal employment opportunities within her locality. This shift has also significantly enhanced her confidence and social recognition, positioning her asa respected and emerging rural entrepreneur.

Impact

The intervention has brought significant economic, social, and environmental benefits to her. Economically, she is now earning an additional ₹6,500 to ₹8,000 per month during the agricultural season, which has increased her household income and reduced her dependence on irregular wage labour, with further potential to expand into a full-time enterprise. Socially, her status in the village has improved, and she has taken on a stronger role in SHG activities, emerging as a role model for other rural women while also gaining greater decision-making power within her family. Environmentally, her drone-based services ensure precise and efficient application of inputs, reducing chemical wastage and minimizing exposure to harmful pesticides, thereby contributing to more sustainable and climate-smart agricultural practices.

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

KVK Thiruvannamalai has successfully leveraged a multi-platform digital strategy to enhance the reach and impact of its agricultural extension services. The data demonstrates a robust and diversified approach to technology transfer through modern communication channels.

1. YouTube – Dominant Platform for Visual Learning

With **1.79K subscribers** and an impressive **79,706 views**, YouTube serves as the KVK's most impactful digital channel. The high view-to-subscriber ratio indicates that content is widely shared and accessed beyond the immediate follower base. Through demonstration videos, training recordings, and success stories, the KVK effectively disseminates visual, step-by-step guidance on innovative technologies such as drone operations, IIHR Vegetable special, DSR technology, crop cultivation, and value addition techniques. This platform enables farmers to revisit complex procedures at their own pace.

2. WhatsApp – Largest Direct Outreach

With **6 active groups** and **1,240 farmers** engaged, WhatsApp allows for real-time, two-way communication. The KVK uses this platform to share timely advisories on weather, pest management, market prices, and upcoming training events. Its widespread use among rural communities makes it an ideal tool for instant technology dissemination and personalized query resolution.

3. Facebook – Community Building through Groups

The KVK's **5.1K followers** on facebook represent its largest direct audience. Facebook facilitates peer-to-peer learning and community interaction. The KVK uses these groups to post success stories, event photos, live session links, and discussion threads. This fosters a collaborative environment where farmers share experiences and best practices, amplifying the KVK's extension reach.

4. Twitter & Instagram – Wider Visibility and Modern Appeal

While smaller in follower count (**240** on Twitter, **96** on Instagram with **37 posts**), these platforms help the KVK reach younger farmers, students, and urban audiences. They are effective for announcing achievements, sharing bite-sized tips, and building institutional credibility. Instagram's visual format is particularly useful for showcasing before-after results of technology adoption.

5. Integration with Traditional and Digital Hybrid Methods

Beyond social media, the KVK complements its digital efforts with:

- **TV Talks:** Featuring 6 **scientists** and **214 farmers**, these broadcasts lend authority and real-life validation to promoted technologies.

- **Radio Talks:** Reaching farmers with limited internet access, radio ensures inclusivity.

- **27 Demo Units with QR Codes: 1120 farmers** have accessed demonstration units via QR codes, blending physical demo plots with instant digital information access. Scanning a QR code on a demo unit provides videos, technical specifications, and contact details of KVK experts.

9. 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 plastic bags inside the paddy field.	To protect the paddy plants from the wildboar.
2		Spraying of plain water	To control thrips.
3		Spraying of Kerosene @ 1 litre mixed with soap and 1 litre of water	To control leaf folder and stem borer
4		Installation of thermocol blocks as bird perches in paddy field.	To avoid the bird problem in the early stage.
7	Field and Horticultural crops	Spreading of hairs around the bunds.	For control of wild Boar damage.
8	Vegetables & Millets	Millet grains with neem leaves	To avoid storage pest damage.
9		Planting of seeds during no moon day	For the better germination of seeds.
10		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



Keeping plastic bags inside the paddy field

10. 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)
Promotion of Little millet ATL-1	190	75	43860.00	59325.00
Paddy varietal replacement with CO 51	100	65	116320.00	138160.00
Promotion of VRI10 Groundnut				
Foliar Nutrition in vegetables (Vegetable special)	1985	74	125843.00	219148.00
Integrated crop management in cucurbitaceous vegetables	815	64	121400.00	199200.00
Precision farming in Solanaceous vegetables	384	55	148930.00	231208.00
Integrated Nutrient Management in Banana	413	61	201520.00	282360.00
Integrated Pest and Disease Management in paddy	3612	52	116996.00	130988.00
Management of maize fall army worm (FAW)	878	68	76986.00	102300.00
Integrated Pest and Disease Management in Groundnut	735	42	143072.00	163752.00
Integrated Panama wilt management in Banana	415	59	641674.00	722277.00
Integrated Pest and Disease Management in Brinjal	257	61	189675.00	296750.00
Beekeeping technologies	366	37	17520.00/ Year	36800.00/ year
Poultry breed demonstration under Backyard condition	726	62	7040	46560
Fruits and vegetable preservation	631	42	7,700.00/ Month	24,500.00/ Month
Value addition in milk	356	30	10,300.00/ Month	26,000.00/ Month
Preparation Instant mix	372	44	8,500.00/ Month	28,000.00 /Month

11. 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	IIHR Vegetable Special	IIHR	8362	1523	93305	14,21,03,515	▪ OFT 19 Nos -110 Farmers. ▪ FLD 32 Nos 340 farmers. ▪ Trainings 143 Nos-1632 farmers.	State Department of Horticulture, Thiruvannamalai	Yield increased 23.80%
2	Integrated pest and disease management in paddy	TNAU	3612	2230	18241	4,06,77,430	▪ OFT 2 Nos -10 Farmers. ▪ FLD 12 Nos 120 farmers. ▪ Trainings 54 Nos-972 farmers.	State Department of Agriculture ATMA and other NGOs in Thiruvannamalai	Yield increased 11.96 %
3	Demonstration on Blackgram Variety VBN 8	TNAU	10451	8210	22996	18,88,000,000	▪ OFT 6 Nos -30 Farmers. ▪ FLD/CFLD 19 Nos 1375 farmers. ▪ Trainings 42 Nos-1756 farmers	State Department of Agriculture, Thiruvannamalai	Higher yield - 26.40 %

4	Promotion of Groundnut VRI10	TNAU	4230	6750	44150	29,80,12,500	▪ OFT 4 Nos - 20 Farmers. ▪ FLD/CFLD 9 Nos 750 farmers. ▪ Trainings 26 Nos-1235 farmers.	State Department of Agriculture, Thiruvannamalai	Higher yield - 18.20 %
5	Backyard poultry farming	TANUVAS	1440	-	46948	3,38,02,560	▪ OFT 7 Nos - 40 Farmers. ▪ FLD 18 Nos 200 farmers. ▪ Trainings 73 Nos-1510 farmers.	Department of Animal husbandry	Doubling the egg production

12. Box Items



"Usage of biopesticides in Brinjal has diminished pesticide residue issues, effective control of pests, providing a cost-effective solution" Said Mr. Murugesan, Indiravanam.

"KVKs FAW technology module in maize consistent against the pest and resulted remarkable 24.26% increased yield leads higher economic returns" said by Saravanan, Manavaram



*"Paddy **RNR 15048** fetches high NR of Rs.76720/- said A.Vijayan, Vellakulam.*



***"IIHR vegetable special:** A prosperous harvest leads sustainable growth, maximizing market value," said Jayaraj, Thideerkuppam.*



*"**TANUVAS GRAND** offered an additional 500 ml of milk, beyond milk, better health, digestibility", Says Ramesh, Thensenthamangalam.*



*"Our **nursery** is a bank of living potential, where every seedling is a deposit into the happiness of the community." said Premkumar, Anakavoor.*



13. Report on entrepreneurship development programmes

Livelihood enhancement through entrepreneurship development for the marginalized women

Setting up a common facility centre: The ICAR–Krishi Vigyan Kendra, Thiruvannamalai, organized a phase of Entrepreneurship Development Programmes (EDPs) to promote sustainable livelihoods among Scheduled Caste communities. As part of this initiative, Shree Muthalaman Self Help Group (SHG) comprising 10 SC women members from Senal village, Thellar Block, vandavasi Taluk was identified and supported for establishing a micro-enterprise.

Skilling & Capacity Building : The SHG members underwent structured training includes Preparation of Rice vermicelli using improved techniques, Operation and maintenance of Rice vermicelli making machine, hygiene, food safety practices and basic entrepreneurship skills (costing, pricing, marketing)

The training enhanced their technical competency and entrepreneurial confidence. Enterprise established with technical guidance from KVK SMS-Home Science, a Common Facility Centre was established with a Rice vermicelli making unit. The enterprise produces 22,500 Rice vermicelli pieces per month, catering to local markets, small eateries, and households.

Handholding Support by KVK : KVK provided continuous support viz., Selection and installation of machineries (weighing balance, Dough kneader, Extruder, Boiling unit), product standardization and quality control Branding, packaging, and pricing strategies and market linkage.

Periodic review and corrective support: This ensured smooth functioning and sustainability of the enterprise.

Outcome of Skilling:

- Total monthly income of Rs.74,925.00 with a net profit of Rs. 65,825.00, Per member income: 6,500/month.
- A total of 10 SHG members engaged in Part-time livelihood activity on rotational work system.
- Transition from wage labour to self-employment and group enterprise.

Impact:

- Enhanced economic empowerment of SC women.
- Improved household income and living standards.
- Strengthened SHG's unit and leadership.
- Created a replicable model for rural micro-enterprises.

Conclusion : The intervention demonstrates that skill-based training combined with continuous and holding can successfully transform rural SHGs into sustainable entrepreneurs. The Shree Muthalaman SHG stands as a model for inclusive growth, women empowerment, and livelihood security.

14. One case of successful technology application and dissemination

14.1. Composite fish culture uplift the culture of the fisher

1. Situation Analysis / Problem Statement

- **Declining Agricultural Viability** : Farmers cultivating traditional crops like groundnut and paddy faced high cultivation costs, unpredictable weather, and labor shortages, making sustained income difficult.
- **Underutilized Water Resources** : The district has irrigation tanks and water bodies that were either underutilized or had seasonal water availability issues, limiting their productive use.
- **Limited Awareness of Aquaculture**: Many farmers lacked scientific knowledge about composite fish farming, pond management, and disease control, restricting their ability to diversify into fisheries.
- **Market Access Gaps** : Farmers selling through traditional market channels faced high transport costs and commission deductions, reducing their profit margins.

2. Plan, Implement and Support:

Planned Interventions:

- **Training Programs** : KVK organized specialized training on freshwater fish farming, composite fish culture, and disease management at KVK campus and off campus
- **Seminars and Awareness Camps** : A one-day seminar on fish farming and value addition was organized in July 2025 in association with the Department of Fisheries and Fisherman Welfare, attended by 31 pioneering farmers.
- **Value Addition Demonstrations** : Three-day training cum demonstration programs on value-added fish products (fish cutlets, fish soup powder, fish fingers) were conducted for tribal families.

Implementation Support:

- **Technical Guidance**: Scientists provided detailed information on pond construction, species selection, stocking density (3000 fingerlings/acre), and feeding protocols.
- **Government Schemes Linkage**: KVK facilitated access to state fisheries department schemes and subsidies.
- **Infrastructure Support**: In Kisan Mela events, KVK distributed coracles, deep freezer boxes, and mobile carts to cooperative societies for fish catching and value addition

3. Output

- The implementation of KVK-supported scientific fish farming produced measurable outputs:

Output Parameter	Achievement
Stocking Density	3,000 fingerlings per acre (2400 Grass carp, 200 Mrigal, 200 Catla, 200 Roghu)
Growth Period	8 months to reach marketable size
Average Weight at Harvest	Grass carp: 1-1.5 kg; Other varieties: 0.75-1 kg
Total Production	3 tons (3,000 kg) per acre per cycle
Direct Selling Price	150-180 per kg (farm gate)
Farmers Trained	Multiple batches including 40 farmers from Vanthavasi block, 26 tribal farmers, and 31 pioneering farmers
Infrastructure Provided	Coracles, deep freezer boxes, mobile carts distributed to cooperative societies

4. Outcome

The adoption of scientific fish farming led to significant positive outcomes:

- **Increased Productivity** : Farmers achieved 3 tons of fish per acre within 9 months,
- **Direct Market Access** : By selling directly to customers from the farm using net cages (to keep fish alive) farmers eliminated middlemen and transport costs, capturing higher prices.
- **Skill Development** : Farmers gained expertise in pond water quality management, disease control, species-specific feeding, and sustainable harvesting techniques.
- **Employment Generation**: Seasonal and regular employment was created for local workers, with organized fishing units operating in shifts.
- **Value Addition Capabilities**: Tribal families learned to prepare value-added products, opening new income streams beyond fresh fish sales.

5. Impact : The economic and social impact of the intervention has been substantial

Economic Impact:

- **Gross Revenue** : For 3 tons (3,000 kg) @ Rs.150/kg = Rs.4,50,000 per acre.
- **Estimated Expenses** : Rs.1,00,000 (including fingerlings, feed, manure, labor)
- **Net Profit** : Rs.3,50,000 per acre per year

Social Impact:

- **Nutritional Security :** Fish provides affordable, high-quality protein for farming families and local communities
- **Empowerment of Marginal Groups**: Tribal families and Scheduled Caste fishers received targeted support through training and equipment distribution.
- **Women's Participation**: Farm women actively participated in value addition training, enabling them to contribute to household income.

Environmental Impact:

- **Sustainable Water Use**: Fish farming utilizes existing irrigation tanks and ponds, promoting efficient water resource utilization.

- **Integrated Farming Synergy**: Pond silt serves as nutrient-rich manure for crops, creating a circular economy on farms.

15. Linkages

Sl.No	Name of organization	Nature of linkage
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	Tamil Nadu Skill Development Corporation, Chennai.	Skill Trainings and Extension Activity
15	National Fisheries Development Board, Hyderabad	
16	Hand in Hand	Training and Awareness programme
17	The Fertilizers and Chemicals Travancore Ltd (FACT)	Training and awareness programme
18	National Fertilizers Limited	
19	Himalaya Wellness Company, Bengalure	Promotion of herbal crops

16. Awards and Recognitions

- Shri. V.Suresh, Senior Scientist and Head awarded the Best KVK Scientist award by Indian Society of Agricultural Science and Technology Research, New Delhi For the best service and approach of disseminating agri related information to the farmers.
- Shri. V.Suresh, Senior Scientist and Head awarded Eminent Scientist Excellance award by Western Ghat Researcher Assoication of Agricultural Sciences and Technology, Prosper Foundation and Agri Amigos PVT Ltd, Tamil Nadu for the best colloborative works to farming community.
- Smt.T.Margaret, Subject Matter Specialist, Home Science awarded Eminent Scientist Excellance award by Western Ghat Researcher Assoication of Agricultural Sciences and Technology, Prosper Foundation and Agri Amigos PVT Ltd, Tamil Nadu for the best colloborative works to farming community.
- Shri.P.Narayanan, Subject Matter Specialist, Plant Protection awarded Extension Service Excellance award by Western Ghat Researcher Assoication of Agricultural Sciences and Technology, Prosper Foundation and Agri Amigos PVT Ltd, Tamil Nadu for the best colloborative works to farming community.
- Dr.K.Mayakrishnan, Subject Matter Specialist, Animal Science awarded Extension Service Excellance award by Western Ghat Researcher Assoication of Agricultural Sciences and Technology, Prosper Foundation and Agri Amigos PVT Ltd, Tamil Nadu for the best colloborative works to farming community.
- Shri, R.Vijayakumar, Subject Matter Specialist, Horticulture awarded Young Extension Service Award by Western Ghat Researcher Assoication of Agricultural Sciences and Technology, Prosper Foundation and Agri Amigos PVT Ltd, Tamil Nadu for the best colloborative works to farming community.













17. Important Visitors to KVKs during 2025



Dr.Shaik N Meera, Director, ICAR ATARI, Zone X, Hyderabad visited the KVK on 26-10-2025 for a Review meeting

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