

ICAR KRISHI VIGYAN KENDRA

Thiruvannamalai, Tamil Nadu.

ANNUAL REPORT (1st January 2021 to 31st December 2021)

1. GENERAL INFORMATION ABOUT THE KVK

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

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

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

Name of the Host Organization as per Official Records : **Tamil Nadu Board of Rural Development**
 Status of the Host Organization (As per the MoU) : NGO
 Address : No:24, IInd floor, Crescent park street,
 T.Nagar, Chennai-600 017.
 Tamil Nadu.
 Phone : 044-24361319
 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

1.6. 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			
	6407.3 Meter				5,58,765.00			
5	Fencing	ICAR		270.8	2,92,757.00			
6	Threshing floor	ICAR						
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 31.12.2021	Present status
Jeep : TN-09 AF – 0775	2004	4,82,356/-	300935	In condemned condition
MF Tractor & Trailer : TN-25 AX 1058	2012	5,70,000/-	2297.4	Good
Hero Honda : TN-09 AP 4662	2006	36,890/-	91964	Need to be replaced
Hero Honda passion plus : TN-25 S 0563	2009	49,476/-	94637	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	Digital Conductivity meter	3/10/2005	10444	Good
13	Hot air oven - Guna Make	3/10/2005	15033	Good
14	Hot plate - Sunbim Make	3/10/2005	24998	Good
15	Refrigerator – Whirlpool	3/10/2005	19998	Good
16	Spectro photometer Model SL177	3/17/2005	60300	Good
17	Grinder - NACLE - 65mm x 25mm motor - 1/4 HP Stainless Steel	3/23/2005	30009	Good
18	Electronic balance -AUY 220, Capacity:20 gms	3/26/2005	100242.5	Good
19	Servo Voltage Stabilizer with 5 KVA Electronic High/Low Voltage cut off	3/30/2005	9008	Good
20	Teak plywood table 6 x 2.5 x 2.5 ft-8 x 2.5 x 2.5 ft	1/3/2006	86280	Good
21	LCD-Panasonic Projector	3/22/2007	55000	Good
22	Computer Tables	9/19/2008	0	Good
23	Printer Tables	9/19/2008	0	Good
24	Chairs	9/19/2008	0	Good
25	Pruning saw heavy duty	2/18/2010	3474	Good
26	Lopping shear	2/18/2010	1283	Good
27	Secature	2/18/2010	1624	Good
28	Garden tools	2/18/2010	386	Good
29	Garden hoe	2/18/2010	565	Good
30	Garden fork with steel handle	2/18/2010	291	Good
31	Leaf rabe with handle	2/18/2010	291	Good
32	Hand saw	2/18/2010	239	Good
33	Secature-Geneo	2/18/2010	445	Good
34	Portable Generator --Birla Ecogen-EG 3000 AS Model	3/9/2010	77520	Need to be replaced
35	Inverter-Usha Zentra digital-1400 VA with Tubular battery SR-2 Nos	3/9/2010	27500	Need to be replaced
36	Tope-Round Vessel-10 G-6.700 kg	6/8/2010	1045	Good
37	Tope-Round Vessel-10 G-17.060 kg (52-60")	6/8/2010	2750	Good

38	Kaivadi Big Vegetable stainer-1.400 kg	6/8/2010	532	Good
39	Vegetable Kothu-SS 2.800 kg	6/8/2010	700	Good
40	Milk cane-SS-1.480 kg	6/8/2010	385	Good
41	Bucket- Satha-SS-1.580 kg	6/8/2010	253	Good
42	MS Jarnee-MS-2.060 kg	6/8/2010	134	Good
43	MS Stand-Fire wood Stove stand-16.080 kg	6/8/2010	1045	Good
44	Wet Grinder-Jumbo Junior 6" Plate grinding machine with stand, 1.5 HP single phase motor	7/5/2010	12540	Good
45	72 x 48 x 4 " Inch Cushion Double Bed Mattress	8/5/2010	76608	Good
46	72 x 36 x 4 " Cushion Mattress	8/5/2010	29352	Good
47	VST-Sakthi Power tiller-130DI with CT85 fitted diesel engine	8/13/2010	148190	Need to be replaced
48	Prestige mixture Grinder 3 Jar	2/17/2011	3465	
49	Idly Pannai – Small	2/26/2011	495	Good
50	Tabara with lid	2/26/2011	555	Good
51	Iron Kadai	2/26/2011	400	Good
52	Hot pack	2/26/2011	1300	Good
53	Public Address system - Ahuja PS x 1200 Amplifier Speaker	3/11/2011	10860	Good Good
54	Public Address system - Ahuja AW 490 VHL Cordless dual mike	3/11/2011	2513	
55	Ahuja SRX 50 x T Speaker box	3/11/2011	5587	Good
56	DVD Player-Sony-SR700H	3/11/2011	4050	Good
57	Deep Freezer-110 lit capacity (-200C)-ELANPRO	3/31/2012	31500	Good
58	Refrigerated Centrifuge (Centrifuge tube two types 1.Rotor 2. Expend of) 20000 RPM speed-RCF37570 - 8 to 400C-Remi with Rotor	3/31/2012	198500	Good Good
59	Vacuum desiccators-Made 3.3 low expansion Borosilicate Glass	3/31/2012	5000	
60	Hot air oven-Double walled chamber	3/31/2012	30000	Good Good
61	Laminar Air flow chamber- Clean air model	3/31/2012	57250	
62	BOD Incubator - Horizontal - Capacity : 6 Cubic feet.-Lark	3/31/2012	74425	Good
23	Vortex mixer - 200-2800 RPM variable speed	3/31/2012	3738	Good
64	D.O Meter - Range 0-20 ppm, 0-600C	3/31/2012	8400	Good
65	Digital pH Meter - Range -2.00 to 16.00pH	3/31/2012	9450	Good
66	Digital Colony counter - 5 digit, Size 110mm	3/31/2012	5000	Good
67	Thermo hygrometer - Range 0-100 %	3/31/2012	1312	Good
68	Digital moisture meter-VFD Display	3/31/2012	86000	Good
69	Microscope with stand - Lens dia 145 mm,	3/31/2012	5250	Good
70	UV rays chamber - UV lamp long wave length 365nm	3/31/2012	6875	Good
71	Magnetic stirrer-Fitted with Pilot lamps, Variable speed stirring.	3/31/2012	4095	Good
72	Brix meter-0-45 %	3/31/2012	3500	Good
73	Brix meter-45 to 85 %	3/31/2012	3500	Good

74	Phase contrast microscope-Antifungal and anti reflection	3/31/2012	57000	Good
75	Dissection microscope-ISI standard with movable condenser	3/31/2012	1575	Good
76	Water bath - Tank-Double walled chamber with thermo stat	3/31/2012	4725	Good
77	Stereo zoom microscope - Digital imaging systems	3/31/2012	103050	Good
78	10 KVA Wide range single phase electronic servo voltage stabilizer	3/31/2012	21755	Good
79	Whirlpool Air Conditioner split 1.5 ton 5 Star with stabilizer	3/31/2012	33000	Need to be replaced
80	IFB Microwave oven-20 lits. Capacity	3/31/2012	4500	Good
81	Mridaparikshak-Mini Soil Testing kit	3/31/2017	180600	Good
82	Ahuja Portable Speaker with Mic	2019	9000	Good
83	HP Laptop with wireless	2020	60699	Good
84	Autoclave – 2 Nos	2020	35990	Good
85	Incubator with stabilizer (220 egg capacity)	2021	26941	Good
86	DELL-Desktop System with monitor	2021	85500	Good
87	HP Neverstop Laser MFP printer	2021	19899	Good
88	Shaktiman Rotavator-36 plate	2021	105000	Good

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

S.No.	Date	No of Participants	Salient Recommendations
1.	17.03.2021	22	-
2.	17.03.2022	24	Details given hereunder:

I. SALIENT RECOMMENDATIONS OF THE SAC MEMBERS

The President, TNBRD, Chennai.

- Importance may be given to the promotion of inland fish culture among farmers.
- The KVK should promote ten cent model fodder cultivation in collaboration with line departments in the district.
- Low cost bee hive boxes production may be promoted in collaboration with other stakeholders in the district.

Programme Coordinator, TNAU KVK, Vellore.

- Technologies on ecto parasites control in animals may be promoted among farmers.
- Micro irrigation system models can be established in the KVK instructional farm.

Principal Scientist, Central Institute of Brackish water Aquaculture, Chennai.

- Participatory Rural Appraisal (PRA) techniques need to be conducted to assess the problems of farmers in the district.
- Location specific Integrated Farming System models need to be promoted to doubling the income of farmers.

The Professor and Head, Centre of Excellence in Millets, Thiruvannamalai.

- Promotion of mechanisation in millet cultivation may be given importance in the district.
- Importance may be given by KVK for value addition in millets.

Regional Joint Director, Department of Animal Husbandry, Thiruvannamalai.

- Hog farming (White pig) may be promoted among farmers.

The District Development Manager, NABARD, Thiruvannamalai.

- The KVK may give importance and promote organic farming practices to all the Farmer Producer Organizations in the district.
- Collaborative programmes may be organised by KVK for marketing linkages of FPO products.

Assistant Professor and Head, VURTC, TANUVAS, Thiruvannamalai.

- Awareness may be created on mobile applications of TANUVAS viz., sheep & goat farming and feed calculator among farmers for the instant decision making.
- Awareness programme may be created on Ranikhet disease in poultry birds.

Assistant Director of Agriculture, Vembakkam.

- Importance may be given for the promotion of organic farming or Natural farming.

The Lead District Manager, Indian Bank, Thiruvannamalai.

- Awareness may be created on banking schemes in Agriculture and allied enterprises among farmers.

Assistant Director, Fisheries and Fisherman Welfare, Vellore.

- Gift tilapia fish farming may be promoted among farmers.

The Deputy Horticulture Officer, Vembakkam.

- Technical support may be given by the KVK on organic farming to the beneficiaries of various schemes implemented by the department of horticulture.

District Industrial Centre, Thiruvannamalai

- Awareness may be created among farmers about DIC schemes.
- Importance may be given in KVK activities for the promotion of value addition in Groundnut, since the crop is selected for One District One Product (ODOP) scheme.

Farmer Members**Mr.V.Vasudevan, Farmer, Vazhur, Vandavasi, Thiruvannamalai.**

- Importance may be given for promotion of organic farming in the district.

Mr.D.Manivannan, Farmer, Sathupperipalayam, Arni, Thiruvannamalai.

- Importance may be given for the promotion of solar energy based activities in agri and allied fields.

Mr.N.Parthasarathy, Farmer, Athanur, Thiruvannamalai.

- Trainings may be conducted on improved technologies in tuberose cultivation.

List of members participated in the SAC meeting: Annexure-I

2. DETAILS OF DISTRICT (2021)

2.0. Operational jurisdiction of KVKs

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

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

S. No	Name of the taluk	Taluk HQ	Name of Blocks covered	No. of Village Panchayat	No. of Revenue villages
1	Thiruvannamalai	Thiruvannamalai	Thiruvannamalai	69	78
			Thurinapuram	47	57
2	Kilpennathur	Keelpennathur	Keelpennathur	45	77
3	Thandampattu	Thandampattu	Thandampattu	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 28.62°C. Hot during summer(35 - 37°C). Cool during winter periods (24 - 26°C). 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 2021. (Season: Kharif, Rabi and Summer)

S. No	Crop	Area (ha)	Production (tonnes)	Productivity (kg/ha)
1	Paddy	170608	687000	4027
2	Cumbu	6034	2482	2431
3	Cholam	37	45	1210
4	Ragi	4408	14207	3223
5	Samai	5418	10765	1987
6	Maize	965	5397	5593
7	Blackgram	39830	23699	595
8	Greengram	2136	1179	552
9	Redgram	1643	2083	1268
10	Groundnut	92990	252747	2718
11	Gingelly	2263	1122	496
12	Coconut	746	4898 (Nuts)	6566
13	Sugarcane	11819	305138	93000
14	Turmeric	294	1534	5217
15	Tapioca	1530	64570.6	42203
16	Cotton	282	261620	412

17	Tomato	717	9354.7	13047
18	Brinjal	991	10236.0	10329
19	Bhendi	653	4290.2	6570
20	Chillies	2344	1472	628
21	Banana	3281	112210	34200
22	Mango	405	2217.0	5474
23	Onion	247	0.891	8652
24	Mulberry	600	25.33 (Cocoons)	42.22
25	Others	29370	-	-
Total Cropped area (ha)		379611	-	-

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
January 2021	48.3	27.80	21.60	74.10
February	18.7	29.20	21.00	55.20
March	0.0	33.00	22.80	48.00
April	20.9	35.60	25.80	52.60
May	67.1	36.20	28.30	49.60
June	37.5	33.10	27.60	49.90
July	259.0	32.90	25.90	62.50
August	139.3	33.10	26.50	61.70
September	270.1	31.80	25.10	68.10
October	242.9	31.60	24.70	61.90
November	527.1	29.40	23.50	75.30
December 2021	88.3	27.30	21.90	76.10
Average/Total	1719.2	31.75	24.56	61.25

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2021)

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

2.7. Details of Adopted Villages (2021)

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	Proposed type of interventions
1	Arni, Vandavasi, Vembakkam, Polur, Cheyyar	Arni: Sathupperipalayam	Sathupperipalayam Vazhur, Padavedu, Kilnelli, Palli	2016-17	Paddy	Cultivation of old varieties, lack of awareness on season specific varieties, High infestation of pest & diseases BPH, Stem borer, Tungro, BLB and Blast, High incidence of pest and disease, Yield reduction. Lack of knowledge on value addition.	OFT, Training, Extension activities
2		Polur : Padavedu		2016-17	Finger millet, Little 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 for raw millets.	FLD, Field day, Training, Method Demonstration
3		Vandavasi: Vazhur		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.	Training, Extension activities
4		Vembakkam : Kilnelli		2017-18	Greengram	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.	FLD, Field day, Training, Method Demonstration
5		Cheyyar : Palli		2016-17	Bhendi	Low yield, Imbalanced nutrition, Non adoption of improved technologies, YVMV. Lengthy time consuming and Crucial process during harvest.	FLD, Field day, Training, MD

6	Arni, Vandavasi, Vembakkam, Polur	Arni: Sathupperipalaya m	Sathupperipa layam Vazhur, Padavedu, Kilnelli, Palli	2016-17	Brinjal, Tomato	Low yield, Flower drop, Lack of application of growth regulators, Cultivation of local variety, Lack of adoption of improved hybrids and technologies, Leaf curl in tomato, Incidence of shoot & fruit borer and little leaf, Wilt, Imbalanced nutrition, Poor quality seedlings and field establishment. Low market price during on season.	Training, Extension activities	
7		Polur : Padavedu		Vandavasi: Vazhur	2018-19	Poultry	Less number of egg production, Low hatchability, Chick mortality, Less feed efficiency	FLD, Field day, Training, Method Demonstration
8		Vembakkam : Kilnelli			2018-19	Goat	Low body weight, High mortality, High morbidity.	FLD, Field day, Training, Method Demonstration.
9					2018-19	Quail	Less number of egg production, Low hatchability, Chick mortality, Less feed efficiency.	Training, Extension activities

DFI villages 2021

Sl. No.	Taluk/ Mandal	Name of the block	Name of cluster villages	Year of Adoption	Major crops & Enterprises	Major problems identify in each crop/enterprise	Proposed type of interventions
1	Vandavasi	Vandavasi	Kilsembedu	2016-17	Paddy	Cultivation of old varieties, lack of awareness on season specific varieties, High infestation of pest & diseases BPH, Stem borer, Tungro, BLB and Blast, High incidence of pest and disease, Yield reduction, Lack of knowledge on value addition.	Training, Extension activities
2					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.	OFT, FFS, Training and Extension activities
3					Snakegourd Ridgegourd	Low fruit set, Maleness, Lack of adoption of location specific hybrids, Imbalanced nutrition, Lack of adoption of improved technologies, fruit fly, Sucking pests Downy mildew and powdery mildew.	FLD, Trainings and Awareness camp.
4					Brinjal	Low yield, Flower drop, Lack of application of growth regulators, Lack of adoption of improved technologies, Incidence of shoot & fruit borer and little leaf, Wilt, Imbalanced nutrition and poor quality seedlings.	FLD, Training, MD, Field day
5					Poultry birds	Less number of egg production, Low hatchability, Chick mortality, Less feed efficiency.	Trainings

6	Arni	West Arni	Athanur	2017-18	Paddy	Lack of awareness on season specific varieties, High infestation of pest & diseases BPH, Stem borer, Tungro, BLB and Blast, High incidence of pest and disease, Yield reduction.	Trainings and Extension activities
7					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, Field day Training and Extension activities
8					Little 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 value for raw millets.	FLD, Field day, Training, Method Demonstration
9					Brinjal	Low yield, Flower drop, Lack of application of growth regulators, Lack of adoption of improved technologies, Incidence of shoot & fruit borer and little leaf, Wilt, Imbalanced nutrition and poor quality seedlings.	Trainings and Extension activities
10					Bhendi	Low yield, Imbalanced nutrition, Non adoption of improved technologies, Yellow vein Mosaic Virus. Lengthy time consuming process, crucial process during harvest.	Trainings and Extension activities
11					Poultry birds	Less number of egg production, Low hatchability, Chick mortality, Less feed efficiency.	FLD, Training, Method demonstrations
12					Compost	Lack of awareness on decomposing technology, Low soil fertility	Trainings and Extension activities

2.8. Priority/thrust areas

Crop/Enterprise	Thrust area
Paddy, Groundnut, Blackgram, Millets, Brinjal, Chillies, Bhendi, Cucurbits, Turmeric	Integrated Crop Management
Paddy, Greengram, Groundnut, Chillies	Varietal assessment
Paddy, Groundnut, Finger millet, Little millet, Ridgegourd, Bhendi	Demonstration of high yielding hybrids/varieties
Paddy, Groundnut, Blackgram, Vegetables	Integrated Nutrient and weed Management
Paddy, Groundnut, Maize, Pulses, Sugarcane, Snakegourd, Banana, Brinjal, Chilli	Integrated Pest and Disease Management
Paddy, Groundnut and Blackgram	Quality seed production
Paddy	Conservation of traditional varieties
Paddy, Groundnut, Pulses, Vegetables, Coconut	Farm Mechanization
Banana, Vegetables	Precision farming
Brinjal, Chilli, Tomato	Scientific nursery management
Paddy, Groundnut, Banana and vegetables	Organic farming
Paddy, Pulses, Fruits and Vegetables	Post harvest management
Livestock and Poultry	Integrated Farming System, Poultry farming, Dairy farming and Goat rearing
Field crops, Fruits, Vegetables, Milk	Value addition, Drudgery reduction

3. Salient Achievements

Achievements of Mandated activities (1st January 2021 to 31st December 2021)

S.No	Activity	Target	Achievement
1.	Technologies Assessed and refined (No.)	20	20
2.	On-farm trials conducted (No.)	10	10
3.	Frontline demonstrations conducted (No.)	18	18
4.	Farmers trained (in Lakh)	0.02889	0.02889
5.	Extension Personnel trained (No.)	107	107
6.	Participants in extension activities (in Lakh)	0.07389	0.07389
7.	Production and distribution of Seed (in Quintal)	62.92	62.92
8.	Planting material produced and distributed (in Lakh)	0.10417	0.10417
9.	Live-stock strains and finger lings produced and distributed (in Lakh)	0.04543	0.04543
10.	Soil samples tested by Mini Soil Testing Kit (No)	9	9
11.	Soil samples tested by Traditional Laboratory (No)	953	953
12.	Water, plant, manure and other samples tested (No.)	122	122
13.	Mobile agro-advisory provided to farmers (No.)	68109	68109
14.	No.of Soil Health Cards issued by Mini Soil Testing Kits (No.)	9	9
15.	No. of Soil Health Cards issued by Traditional Laboratory (No.)	953	953

Salient Achievements by KVK during the year in bullet points:

- Quality seeds of improved high yielding new varieties viz., VBN-8 (Black gram) 12.49 Qtl and Co-52 & Kullakar (Paddy) 14.89 Qtl, Kadiri 1812 (Groundnut) 29.2 Qtl and fodder seeds like, hedge leucerne, subabul, COFS 29 & 31 (5.04 Qtl) were supplied to the farmers.
- Climate smart millet crops viz., Pearl millet, finger millet, little millet, foxtail millet, kodo millet, proso millet, banyard millet have been promoted in the district over an area of 11241 hectares, which increased the income of the farmers to the tune of rupees 38470/ha.
- With a view to increase the productivity of the vegetables by 20-30 %, foliar nutrition has been promoted by KVK. Total quantity of 362 kg of IIHR vegetable special (Micronutrient formulation) has been produced and distributed to farmers. At present the technology has spread over an area of 1153 ha in the district.
- A total of 24 Integrated Farming System models have been established in the district and being maintained under the technical support of KVK. They serve as model IFS farms in the district.
- As an alternative income generation activity, the beekeeping has been promoted in the district by KVK. A total of 15 small scale bee farms have been established in the district and 175 farmers directly benefited.

4. TECHNICAL ACHIEVEMENTS

Details of target and achievements of mandatory activities by KVK during 2021

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
10	10	20	20	10	10	55	55

FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers/Beneficiaries/Replications	
Targets	Achievement	Targets	Achievement	Targets	Achievement
18	18	33	33	170	170

Training including sponsored, vocational and other trainings

Number of Courses			Number of Participants	
Clientele	Targets	Achievement	Targets	Achievement
Farmers and Farm Women	145	145	2646	2646
Rural youth	2	2	20	20
Extn. Functionaries	7	7	107	107
Vocational	2	2	25	25
Sponsored training	7	7	198	198

Extension Activities

Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement
884	884	7389	7389

Seed Production (q)

Target	Achievement	Distributed to no. of farmers
62.92	62.92	372

Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
10417	10417	198

Bio Products (Kgs.)

Target	Achievement	Distributed to no. of farmers
13803	13803	723

4.1. Technology Assessments (OFTs) in Detail

4.1.1. Assessment of the performance of paddy varieties-TKM – 13 and AU – 1 GSR in Samba season.

1. **Thematic area** : Varietal Assessment
2. **Title** : Assessment of the performance of paddy varieties (TKM – 13 and AU – 1 GSR) in Samba season.
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	1179.4	16

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-AU – 1 GSR
TO2 : Paddy variety – TKM – 13
FP : Cultivation of BPT & NLR

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Paddy seed AU1	75 kg	2500.00
Paddy seed TKM 13	75 kg	2700.00
MN mixture	25 kg	1088.00
Azospirillum	10 kg	300.00
Phosphobacteria	10 kg	300.00
<i>Bacillus subtiles</i>	10 kg	1500.00
Soil testing	5 Nos	250.00
Field board	5	1000.00
Total Rs.		9638.00

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 : Cultivation of BPT & NLR		49.44	21030	1.38	<ul style="list-style-type: none"> ▪ Number of plants/sqm ▪ No. of tillers/plant ▪ No. of grains/plant ▪ Yield (q/ha) ▪ BCR
TO 1 : Paddy variety- AU – 1 GSR	5	62.48	42591	1.79	
TO 2 : Paddy variety – TKM – 13		55.58	32078	1.59	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Number of plants/sqm	31.61	34.93	33.95
Number of tillers	35	43	44
Number of grains/plant	85.07	96.37	93.9
Yield(q/ha)	49.44	62.48	55.58
Gross Cost (Rs./ha)	55546.00	54187.00	54013.00
Gross Income (Rs./ha)	76576.00	96778.00	86093.00
Net income (Rs./ha)	21030.00	42591.00	32078.00
BCR	1.38	1.79	1.59

Description of the results:

The Rice varietal assessment trials were conducted in five locations covering five farmers, during *Kharif* season. During the varietal assessment various parameters were observed and recorded. The number of grains per plant recorded very low in farmers practice NLR (85 nos.) followed by TKM 13 (94 nos.) and highest grains per plant (96 nos.) were recorded in AU 1 Paddy variety.

The mean average yield (62.48 Qtl/ha) was recorded in AU 1 Paddy variety, which is 26.38% higher compared to NLR variety (49.44 Qtl/ha) followed by TKM 13 paddy variety (55.58 Qtl/ha). Farmers have obtained the highest net income of Rs.42591/ha in paddy variety AU 1 followed by TKM 13 (Rs.32078/ha) and lowest net income was recorded in farmers practice NLR (Rs.21030/ha). The highest benefit cost ratio of 1.79 was recorded in AU 1 and lowest was recorded in NLR (1.38).

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 AU 1 has recorded higher yield and getting higher market price compared to NLR. This variety is highly suitable for *Kharif* season.

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

Based on the assessment of paddy varieties at field level, this AU 1 variety is performed well and highly suitable for *Kharif* season.

4.1.2. Assessment of the performance of Groundnut varieties in Thiruvannamalai dt.

1. **Thematic area** : Varietal evaluation
2. **Title** : Assessment on performance of Groundnut in Thiruvannamalai district
3. **Scientists involved** : Subject Matter Specialist (Agronomy)
4. **Details of farming situation** :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy loam	L	M	H	248.2	7

5. Problem definition / description:

Groundnut is a major oilseed crop cultivated in larger area in Thiruvannamalai District. The groundnut has been cultivated by farmers' mainly during two seasons viz., Kharif(June-July), Rabi (September - October). Farmers are getting the low yield and market price due to cultivation of very age-old variety VRI-2 in larger area. The groundnut variety VRI-2 is less drought tolerant and highly susceptible to early and late leaf spot, rust diseases resulting in low crop yield and higher production cost per hectare due to application of massive amount of pesticides.

6. Technology Assessed:

TO1 : Cultivation of Groundnut variety TMV-14

TO2: Cultivation of Groundnut variety ICGV 00350

FP : Cultivation of Groundnut variety VRI 2

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
Groundnut TMV-14 (Kernel)	175 kg	11250.00
Groundnut ICGV 00350 (Kernel)	175 kg	10625.00
<i>Trichoderma viride</i>	14 kg	1500.00
Soil health card	5	250.00
Field board	5	1000.00
Total Rs.		24625.00

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 : Groundnut variety VRI 2		19.62	47997.20	2.08	<ul style="list-style-type: none"> ▪ Number of plants/sqm ▪ Number of pods/plant ▪ Yield (q/ha) ▪ BCR
TO 1 :Groundnut variety TMV-14	5	23.79	68614.20	2.59	
TO 2 :Groundnut variety ICGV 00350		28.87	91777.80	3.09	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Number of pods/plant	22.85	29.90	34.28
Yield(q/ha)	19.62	23.79	28.87
Gross Cost (Rs./ha)	44528.00	43180.00	43930.00
Gross Income (Rs./ha)	92525.20	111794.20	135707.20
Net income (Rs./ha)	47997.20	68614.20	91777.20
BCR	2.08	2.59	3.09

Description of the results:

The Groundnut varietal assessment trials were conducted in five locations covering five farmers, during *Rabi* season (2020-21). During the varietal assessment various parameters were observed and recorded. The number of pods per plant recorded very low in farmers practice VRI 2 (23 nos.) followed by TMV 14 (30 nos.) and highest pods per plant (34 nos.) were recorded in ICGV 00350 groundnut variety.

The mean average yield (28.87 Qtl/ha) was recorded in ICGV 00350 Groundnut variety, which is 47.15% higher compared to VRI 2 (19.62 Qtl/ha) followed by TMV 14 groundnut variety (23.79 Qtl/ha). Farmers have obtained the highest net income of Rs. 91777/ha in groundnut variety ICGV 00350 followed by TMV 14 (Rs.68614/ha) and lowest net income was recorded in farmers practice VRI-2 (Rs.47997/ha). The highest benefit cost ratio of 3.09 was recorded in ICGV 00350 and lowest was recorded in VRI-2 (2.08).

9. Constrains: The seed availability may be ensured in the cropping season.

10. Feed back of the farmers involved:

The Groundnut variety ICGV 00350 has recorded higher yield and getting higher market price compared to VRI-2. This variety is highly suitable for *Rabi* season.

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

Based on the assessment of groundnut varieties at field level, this ICGV 00350 variety is performed well and highly suitable for *Rabi* season.

4.1.3. Assessment of Improved hybrids for higher productivity in Chilli

- 1. Thematic area** : Varietal evaluation
- 2. Title** : Assessment of Improved hybrids for higher productivity in Chilli
- 3. Scientists involved** : Subject Matter Specialist (Horticulture).
- 4. Details of farming situation :**

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy caly loam	L	M	M	857.9	14

5. Problem definition / description:

The farmers were not aware of the improved high yielding Chilli hybrid suitable for their location. As a result, low yield (29%) and income were obtained as compared to potential yield and income levels of improved hybrids.

6. Technology Assessed:

TO1 : Cultivation of Arka Khyati Chilli hybrid.

TO2 : Cultivation of CO1 Chilli hybrid.

FP : Cultivation of private hybrids.

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
CO1Chilli hybrid seeds	240 gm	5760.00
Arka Khyati Chilli hybrid seeds	240 gm	4800.00
Vegetable Special	24 kg	4200.00
Field board	8 Nos	1600.00
Total Rs.		16360.00

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: Private hybrids	8	216.89	175007.00	2.14	<ul style="list-style-type: none"> ▪ Days to 50%flowering ▪ Average fruit weight(g) ▪ Average fruit length(cm)
TO1: Arka Khyati Chilli hybrid		277.57	270768.00	2.86	
TO2: CO1 Chilli hybrid		248.57	256705.00	2.73	

Table 2 : Data on other performance indicators*

Parameters observed	Farmer practice	Technology Option 1	Technology Option 2
Days to 50% flowering	45	45	44
Average fruit weight(g)	4.43	4.70	4.54
Average fruit length(cm)	8.7	11.43	9.50

Description of the results: The Arka Khyati (TO1)chilli hybrid has given 27.97% higher yield as compared to check. Most suitable for the locality. An additional net return of Rs.95761 per hectare was recorded.

9. Constraints: Seeds of improved varieties are not available throughout the year. It resulted in delayed crop raising.

10. Feed back of the farmers involved: Arka Khyati chilli hybrid yields higher but the market preference has been good for CO1 chilli and fetches good market price. Income point of view both hybrids are equal.

11. Feed back to the scientist who developed the technology: Arka Khyati given 27.97% higher yield as compared to check. Fruits are less pungent. Improved dual purpose hybrids with resistance to chillies leaf curl virus with higher pungent fruits similar to Arka Khyati may be developed.

4.1.4. Assessment of nutrient management technological modules for higher productivity in turmeric

1. **Thematic area** : Varietal Assessment
2. **Title** : Assessment of nutrient management technological modules for higher productivity in turmeric
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 clay loam	L	M	M	842.9	14

5. Problem definition / description:

The farmers were not practicing balanced nutrition in turmeric cultivation based on their soil condition. As a result, low yield (27%) and income were obtained as compared to potential yield and income levels.

6. Technology Assessed:

TO1 : FYM 25t/ha+Soil test based NPK application + Foliar application of IISR turmeric micro nutrient mixture @ 5g/litre on 60 and 90 DAP.

TO2 : FYM 25t/ha+Soil test based NPK application + Foliar application of 375g each of Boron, Iron, Zinc and urea in 250 litres of water/ha. And dissolved in 15 kg super phosphate

FP : Soil application of NPK fertilizers without proper micro nutrition.

7. Critical inputs given:

Name of the input	Quantity	Value in Rupees
IISR Turmeric mix	8 kg	1792.00
Super phosphate	50 kg	450.00
Boran (Borax)	8 kg	1760.00
Zinc sulphate	8 kg	480.00
Ferrous sulphate	8 kg	320.00
Soil test	8 Nos	400.00
Field board	8 Nos	1600.00
Total Rs.		6802.00

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.	8	182.14	130296.00	2.02	▪ Dry recovery (%)
TO1		218.26	214952.00	2.73	
TO2		207.35	189438.00	2.50	

Table 2 : Data on other performance indicators*

Parameters observed	Farmers practice	Technology Option 1	Technology Option 2
Dry recovery (%)	16.29	19.48	18.20

Description of the results: The foliar application of IISR Turmeric nutrient mixture(TO1) resulted in 19.83% higher yield as compared to check. An additional net returns of Rs 84656.00 per hectare was recorded.

9. Constraints: Nil

10. Feed back of the farmers involved: The IISR turmeric mix technology was very handy and easy to adopt. It has given higher yield.

11. Feed back to the scientist who developed the technology: The IISR turmeric micronutrient mixture is very effective in improving the crop health and yield. In future, research may be focused on developing a combination product containing disease or pest management molecule.

4.1.5 Assessment of bio repellants against wild boar in paddy

1. Thematic area : Integrated Pest Management

2. Title : Assessment of bio repellants against wild boar in paddy

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	Black clay loam	L	M	M	675	13

5. Problem definition / description:

Paddy is the major crop, cultivated over an area of 1.70 lakh ha in Thiruvannamalai district. But, the yield levels are low due to wild boar damage during the major crop growing period. A 30-42 percentage yield loss recorded due to wild boar damage. Lack of knowledge on wild boar management.

6. Technology Assessed:

TO 1 : Spraying of Innovative Herboliv+ (10% and 20% dilution) with 10 days interval.

TO 2 : Tying of Neelbo treated ropes around the field. 20-30 days once replacement Required.

FP : Manual monitoring (Farmers' practice).

7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	Herboliv	120 lit	10710.00
2	Neelbo	5 lit	5397.00
3	Field Board	5 Nos	1000.00
Total			17107.00

8. Results

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ ha)	BCR	Other performance indicators
					Percent Damage (%)
FP		49.26	30477.00	1.79	29.38
TO 1	5	60.80	46402.00	2.20	8.57
TO 2		55.21	40714.00	2.11	12.80

Description of the results: Among the Wild boar management practice assessed viz., TO1 (Farmer Innovation) and TO2 (PCI) against farmers' practice, the TO1 recorded higher yield (60.80 q/ha) as compared to TO2 (55.21 q/ha) and farmers' practice (49.26 q/ha). Besides, average increase in yield to the tune of 23.42 percent with higher BCR of 2.20 and low damage percentage of wild boar (8.57%) were recorded in TO1 as compared to other technological options.

Overall, the Farmer innovated Herboliv for the management of Wild boar (TO1) had been found effective management of wild boar in paddy and also the technological practices performed well in terms of yield and net income (Rs.40714.00) as compared to PCI developed technology (TO2) and farmers' practice.

9. Constrains: The availability of critical inputs is a major constrain found during the assessment.

10. Feed back of the farmers involved:

The farmers felt that management of wild boar using Herboliv with IPM package (TO1) has given higher yield and higher economic returns with low damage of wild boar compared to other technologies.

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

Standardized bio repellent or environment friendly products may be developed against the wild boar.

4.1.6 Assessment of Pest Management modules against brinjal shoot and fruit borer

1. **Thematic area** : Integrated Pest Management
2. **Title** : Assessment of Pest Management modules against brinjal shoot and fruit borer
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	Black clay loam	L	M	M	192.5	6

5. Problem definition / description:

Shoot and fruit borer, is the most destructive pest of Brinjal. Shoot and fruit borer incidence cause yield loss up to 35% and lack of awareness about IPM Module. The larva of Brinjal shoot and fruit borer burrows into the petioles and tender shoots. It results in drooping of leaves and shedding of flower buds. Severe damage is mainly caused to the developing fruits by the caterpillars as they tunnel inside the fruits. A single caterpillar may destroy as many as 4-6 fruits. Damaged fruits show circular exit holes. The entry holes on the Brinjal fruit can also be seen plugged with excreta thus making the fruits unfit for consumption and marketing

6. Technology Assessed:

TO 1 :Crop sanitation, Trichogramma chilonis @ 50,000/week/ha; Spray Neem Seed Kernel Extract 5 %. Need based chemicals insecticide spray of Emamectin benzoate 5 % SG @ 4g/10 lit or Flubendiamide 20 WDG @ 7.5g/10 lit of water from one month after planting at 15 days interval.

TO 2 :Mass trapping with NBAIR pheromone traps (water type) 15 per ac to be set after first week of planting.

FP :Chlorpyrifos 20% EC, Lambda-cyhalothrin 4.9% CS, Fenvalerate 20% EC, Fipronil 5% SC.

7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	Azadirachitin	2.5 lit	1095.00
2	Emamactin benzoate	500 gm	2500.00
3	Pheromone trap (Water)	50 Nos	2500.00
4	Lucin lure	100 Nos	2832.00
5	<i>Trichoderma chilonis</i>	20 cc	1200.00
6	Field Board	5 Nos	1000.00
Total			11127.00

8. Results

Technology Option	No. of trials	Yield (q/ha)	Net Return (Rs./ ha)	BCR	Other performance indicators
					Percent Infestation (%)
FP	5	301.82	172350.00	2.13	29.52
TO 1		356.21	253420.00	2.77	7.68
TO 2		339.18	222280.00	2.58	13.75

Description of the results: The TO1 has given 18.02 % higher yield as compared to check. the TO1 recorded higher yield (356.82 q/ha) as compared to TO2 (339.18 q/ha) and farmers' practice (301.82 q/ha). An additional net returns of Rs.222280.00 with higher BCR of 2.77 and recorded minimum incidence of shoot and fruit borer (7.68 %).

9. Constrains: The availability of critical inputs viz., Pheromone trap, Parsitiods are major constrain as found during the assessment.

10. Feed back of the farmers involved

The farmers felt that management of shoot and fruit borer with IPM modules has given higher yield and higher economic returns with low incidence of shoot and fruit borer as compared to other technologies.

11. Feed back to the scientist who developed the technology

Shoot and fruit borer resistant hybrids may be developed.

4.1.7. Assessment of alternative natural sweetner in preparation of millet cookies.

1. Thematic area : Value addition
2. Title : Assessment of alternative natural sweetner in preparation of millet cookies.
3. Scientists involved : Subject Matter Specialist (Home science).
4. Details of farming situation : Not applicable

5. Problem definition / description:

Granulated or white sugar is the most common sweetener used in cookies preparation. Nowadays consumption of refined flour based with white sugar added bakery products are rapidly increasing in the daily lives. Refined flour products and white sugar are tempting but they are not healthy, but it is becoming a part of the diet and it impacts the health drastically. Refined flour and white sugar based products may be connected to weight gain, metabolic problems, cardiovascular disease and even cancer.

6. Technology Assessed:

TO 1 : Millet cookies with Palm Sugar, Wheat, Millet, Margarine

TO 2 : Millet cookies country Sugar, Wheat, Millet, Margarine

FP : Maida, White sugar, Margarine, Artificial colour. (Farmer practice)

7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	Wheat flour	10 kg	445.00
2	Ragi flour	10 kg	560.00
3	Plastic container	150 no.s	750.00
4	Margarine	10 kg	1250.00
5	Country sugar	10 kg	800.00
6	Palm jaggery	10 kg	5000.00
7	Field board	5 no.s	1000.00
Total			9805.00

8. Results:

Table 1: Performance of the technology

Technology Option	No. of trials	Production (kg)	Net Return (Rs.)	BCR	Data on Other performance indicators	
					Consumer acceptability	Shelf life
FP	5	50	5350.00	2.57	3.5	45
TO1		50	6750.00	1.93	4.2	60
TO2		50	7750.00	3.21	4.5	60

Description of the results: The selected entrepreneurs had been demonstrated on preparation of different types of cookies using millet with country sugar and Palm sugar. The country sugar added cookies (TO2) has received higher consumer acceptability, market price resulting in higher income.

9. Constrains: -

10. Feed back of the farmers involved:

Millet cookies with country sugar are highly acceptable based on the high shelf life (60 days), Consumer acceptability (based on texture, flavor and colour) and its therapeutic properties and this programme is an eye-opener for all.

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

Consumer acceptability of Millet cookies with country sugar has been preferred by most consumers and highly remunerative.

4.1.8. Assessment on augmenting fertility through oestrous synchronization

1. Thematic area : Production and Management
2. Title : Assessment on augmenting fertility through oestrous synchronization
3. Scientists involved : Subject Matter Specialist (Animal Science).
4. Details of farming situation : Not applicable
5. **Problem definition / description:**
Lack of awareness on recent technology in breeding management, Infertility due to repeat breeding.
6. **Technology Assessed:**
TO 1 : Prosynch – Nano fibre (NF).
TO 2 : Prosync – Nano Creams (NC).
FP : Local treatment
7. **Critical inputs given:**

S.No	Name of the input	Quantity	Value (Rs.)
1	Prosynch-Nano cream	10 Nos	3675.00
2	Prosynch-Nano fibre	10 Nos	4200.00
3	Albendazole	2 lit	864.00
4	Agrimin forte	20 kg	3780.00
5	Field board	5 Nos	1000.00
Total			13519.00

8. Results:**Table 1: Performance of the technology**

Technology Option	No. of trials	Production Milk yield (lit/animal)	Net Return (Rs.)	BCR	Data on Other performance indicators
					Induction (%)
FP	5	2584	12002.00	1.20	NA
TO1		3216	33352.00	1.61	80
TO2		3474	51685.00	2.13	100

Description of the results: Among two technologies assessed against farmers' practice, the TO2 recorded higher yield (3474 lit/animal) as compared to TO1 (3216 lit/animal) and farmers' practice (2584 li/animal). Besides, average increase in yield to the tune of 15.13 percent with higher BCR of 2.13.

Overall, the TRPVB, TANUVAS developed Nano cream (TO2) had been found effective in oestrus synchronization and higher milk yield and resulted higher net income (Rs.51685.00) as compared to (TO1) and farmers' practice.

9. Constrains: -

10. Feed back of the farmers involved:

Restraining of animal for fixing of Nano cream and Nano fibre is difficult, hence its need trevis. .

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

After fixing of Nano cream or Nano fibre in the fore leg of the animal, the pasted items may peeled out due to exposure to rain and sunlight during grazing..

4.1.9. Assessment on tree leaf meal incorporated concentrate feed for backyard native chickens

1. Thematic area : Feed and Fodder management
2. Title : Assessment on tree leaf meal incorporated concentrate feed for backyard native chickens
3. Scientists involved : Subject Matter Specialist (Animal Science).
4. Details of farming situation : Not applicable

5. Problem definition / description:

High feed cost (70-75 % of total production cost), Imbalanced nutrient supply of scavenging birds, Soft shelled eggs. Low body weight gain, Low egg production and reduced hatchability percentage.

6. Technology Assessed:

TO 1 : Tree leaf meal incorporated (2.5-5 %) concentrate feed.

TO 2 : Concentrate feed without tree leaf meal.

FP : Scavenging, waste grains, imbalanced feeding. (Farmers practice)

7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	Chicken mash (Concentrated)	375 kg	10500.00
2	Chicken mash (Tree leaf)	375 kg	10125.00
3	Field board	5 Nos	1000.00
Total			21625.00

8. Results:

Table 1: Performance of the technology

Technology Option	No. of trials	Production No. of Eggs/Bird/Year	Net Return (Rs.)	BCR	Data on Other performance indicators
					Weight at 20 week of age (Kg)
FP	5	67	2090.00	1.54	0.96
TO1		185	7406.00	2.92	1.37
TO2		156	6300.00	2.74	1.20

Description of the results: Among two technologies assessed against farmers' practice, the TO1 recorded higher Egg production (185 Nos/Bird/year) as compared to TO2 (156 Nos/Bird/year) and farmers' practice (67 Nos/Bird/year). Besides, average increase in yield to the tune of 15.13 percent with higher BCR of 2.92.

Overall, the IAN, TANUVAS developed Tree leaf meal (TO1) had been found effective in high egg production with thick egg shell and resulted higher net income (Rs.7406.00) as compared to (TO2) and farmers' practice.

9. Constrains: -

10. Feed back of the farmers involved:

The tree leaf concentrated feed was too powdery. Hence the birds are wasting the feed while consuming.

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

The tree leaves in combination with other locally available conventional feed ingredients could be utilized as feed component for poultry. This Inclusion would be enhance the protein requirement for the poultry and also reduce the cost of production of the feed. In order to reduce the feed wastage while taking the feed by the birds, the feed can be made as crumple feed.

4.10. Assessing the Effectiveness of Different Mobile Apps in terms of Knowledge Gain on market advisory services and increased income level

1. Thematic area : ICT
2. Title : Assessing the Effectiveness of Different Mobile Apps in terms of Knowledge Gain on market advisory services and increased income level
3. Scientists involved : Subject Matter Specialist (Agrl.Extension).
4. Details of farming situation : Not applicable

5. Problem definition / description:

Lack of technical knowledge in market information. No or poor access to ICT tools for gaining knowledge on marketing.

6. Technology Assessed:

TO 1 : eNAM mobile app by GOI.

TO 2 : Kisan Suvidha mobile app by GOI

FP : Uzhavan app by Department of agriculture

7. Critical inputs given:

S.No	Name of the input	Quantity	Value (Rs.)
1	Internet connectivity charges	40	12000.00
Total			12000.00

8. Results:

Table 1: Performance of the technology

Technology Option	No. of trials	Post knowledge score	Adoption Percentage	Data on Other performance indicators	
				Marketing information %	Cultivation information %
FP	2 group	44.01	62.50	25.01	33.20
TO1		50.68	80.00	42.50	63.21
TO2		47.55	72.00	32.08	44.60

Description of the results: The eNAM mobile application giving more information in respect of cultivation practices of agri and allied crops and marketing information when compared to the other mobile application taken for the study. The mean knowledge gain is 44.01% and the adoption of various technologies through eNAM application is 62.50% compared to other application.

Constraints: All the mobile app needs internet connectivity which is quite difficult to access the app in the rural areas.

10. Feed back of the farmers involved:

The contents in all the mobile application should be in regional language and daily weather information and custom hiring centers for hiring machineries should be updated on regular basis.

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

Voice based Offline technical and marketing information should be communicated to the farmers periodically in regional language.

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 CO51 paddy	<ul style="list-style-type: none"> Variety which is resistant to light rain without lodging may be develop 	<ul style="list-style-type: none"> Supply of seeds at low cost. Conduction of training, demonstration and Mass media coverage. 	781	30562	25002
2	Paddy	IPDM	Integrated pest and disease management in paddy	<ul style="list-style-type: none"> High yielding pest (Stem borer) and disease (False smut) resistant variety may develop. 	<ul style="list-style-type: none"> Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage 	76	2840	2410
3	Paddy	Drudgery reduction	Direct sown paddy drum seeder	<ul style="list-style-type: none"> Efficient weed control tools may be introduced in area which direct sown paddy drum seeder is used 	<ul style="list-style-type: none"> Supply of drum seeder at nominal cost. Conduction of training, demonstration, Exhibition and Mass media coverage. 	455	16203	12996
4	Little millet	Varietal demonstration	Demonstration of Little millet variety ATL 1	<ul style="list-style-type: none"> Variety which is tolerant to shoot fly and sheath blight. It shows uniform maturity and non lodging 	<ul style="list-style-type: none"> Supply of seeds at low cost. Conduction of training, demonstration and Mass media coverage. 	65	2560	2350
5	Greengram	Varietal demonstration	Demonstration of Green gram variety VBN-4	<ul style="list-style-type: none"> High yielding pest (Stem borer) and disease (False smut) resistant variety may develop. 	<ul style="list-style-type: none"> Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage 	752	29990	24800

6	Blackgram	Varietal demonstration	Demonstration of VBN- 8 blackgram	<ul style="list-style-type: none"> ▪ Powdery mildew resistant variety may be develop. 	<ul style="list-style-type: none"> ▪ Supply of seeds at low cost. ▪ Conduction of training, demonstration, Exhibition and Mass media coverage. 	163	1762	686
7	Groundnut	Varietal demonstration	Demonstration of TCGS1043 groundnut	<ul style="list-style-type: none"> ▪ High yielding varieties suitable for both seasons may developed. 	<ul style="list-style-type: none"> ▪ Supply of seeds at low cost rate. ▪ Conduction of training, demonstration and Mass media coverage. 	302	6103	6978
8	Chilli	Varietal demonstration	Demonstration of CO(CH)1 Chilli hybrid	<ul style="list-style-type: none"> ▪ Higher yielder. Improved hybrids with resistance to Leaf curl virus may be developed. 	<ul style="list-style-type: none"> ▪ Report on results given. Suggested popularisation methods viz., Supply of seeds at subsidized rate, Conduction of training, demonstration and Mass media coverage. 	43	581	113
9	Bittergourd	ICM	Integrated Crop Management in Bittergourd	<ul style="list-style-type: none"> ▪ ICM technologies are economically viable and yielding best results at field level. 	<ul style="list-style-type: none"> ▪ Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of training, demonstration, Exhibition and Mass media coverage. 	22	333	116

10	Bitter gourd	IPDM	Integrated pest and disease management.	<ul style="list-style-type: none"> High yielding viral disease and fruit fly resistant hybrid may develop. 	<ul style="list-style-type: none"> Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage. 	18	213	59
11	Brinjal	Varietal demonstration	Demonstration of VRM(BR)1 Spiny brinjal with ICM practices	<ul style="list-style-type: none"> Higher yielder. Keeping quality is low compared to local variety. 	<ul style="list-style-type: none"> Report on results given. Suggested popularisation methods viz., Supply of seeds at subsidized rate, Conduction of training, demonstration and Mass media coverage. 	45	474	146
12	Banana	ICM	Integrated Crop Management in banana	<ul style="list-style-type: none"> ICM technologies are economically viable and yielding best results at field level. 	<ul style="list-style-type: none"> Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of training, demonstration, Exhibition and Mass media coverage. 	21	306	157
13	Turmeric	ICM	Integrated Crop Management in turmeric	<ul style="list-style-type: none"> ICM technologies are economically viable and yielding best results at field level. A micro nutrient formulation may be developed especially for Turmeric. 	<ul style="list-style-type: none"> Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of training, demonstration, Exhibition and Mass media coverage. 	17	119	58

14	Chilli	ICM	Integrated Crop Management in Chilli	<ul style="list-style-type: none"> ICM technologies are economically viable and yielding best results at field level. 	<ul style="list-style-type: none"> Report on results given. Suggested popularisation methods viz., Supply of technological inputs at subsidized rate, Conduction of training, demonstration, Exhibition and Mass media coverage. 	41	244	58
15	Bhendi	Varietal demonstration	Demonstration of CO4 Bhendi hybrid	<ul style="list-style-type: none"> Higher yielder. Highly resistant to Yellow Vein Mosaic Virus disease. 	<ul style="list-style-type: none"> Popularisation methods viz., Supply of seeds at subsidized rate, Conduction of training, demonstration and Mass media coverage. 	11	164	41
16	Brinjal	IPDM	Integrated pest and disease management.	<ul style="list-style-type: none"> Shoot and fruit borer resistant spiny Brinjal hybrid may develop. 	<ul style="list-style-type: none"> Trainings, Demonstration, Exhibition, Advisory service, Mass media coverage. 	23	351	79
17	Millet	Value addition	Preparation of convenience food (Health mix, Adai mix, Laddu mix, Muruku mix)	<ul style="list-style-type: none"> District wise marketing avenues may develop for farmer's level value added products. 	<ul style="list-style-type: none"> Trainings, Demonstration, Exhibition, Mass media coverage. 	15	85	-

B. Details of FLDs implemented during the reporting period**1. Demonstration of Little millet variety ATL 1**

Crop : Little millet
 Thematic area : Varietal demonstration

Technology demonstrated :

- Parentage: CO 4 x TNAU 141.
- Suitable for Kharif & Rabi. Drought tolerant.
- Tolerant to shoot fly & sheath blight.
- Uniform maturity and Non lodging.
- Duration:85-90 days. Yield: 16.00 Qtl/ha.

Season and year : Rabi 2020-21

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Rainfed	Rabi 2020-21	Clay loam	L	M	M	39.6	6

Source of fund : ICAR

No of locations (Villages) : 1 (A.K.Padavedu)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	1	9	4	4	-

Feedback from farmers : High yielder preferred in the market.

Feedback of the Scientist : The Little millet variety viz., ATL 1 is more suitable for the locality. It recorded an average yield of 1568 kg/ha which is 49 % higher than the local variety which is 1054 kg/ha..

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	06.04.2021	20	
2	Farmers Training	2	17.02.2021, 22.11.2021	27	-
3	Media coverage	1	18.02.2021	-	Kalam news
4	Training for extension functionaries	-	-	-	-

2. Demonstration of Green gram variety VBN-4

Crop : Greengram
Thematic area : Varietal demonstration

Technology demonstrated :

- Non shattering type.
- Moderate resistance to Yellow Mosaic Virus and powdery mildew diseases.
- Resistance to leaf crinkle virus disease.
- Duration 65-70 days. Yield – 1024

Season and year : Rabi 2020-21

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Rainfed	Rabi 2020-21	Sandy clay loam	L	M	M	227.3	9

Source of fund : ICAR

No of locations (Villages) : 1 (Samanthipuram)

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 : Synchronized matured variety, free from YMV.

Feedback of the Scientist : Green gram VBN 4 variety showed a very good plant population and possess more yield ie., nearly 923.4 kg/ha. Cultivation of this particular variety will automatically increase the net income of the farmer Rs.44148 when compared to the local variety.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	21.01.2021	15	-
2	Farmers Training	3	01.09.2020 08.12.2020	41	-
3	Media coverage	1	09.12.2020	-	Kalam news
4	Training for extension functionaries			-	-

3. Integrated Pest and Disease Management in Groundnut

Crop : Groundnut
Thematic area : Integrated Pest Management

Technology demonstrated :

- Planting of Castor as border crop and Black gram as Intercrop.
- Seed treatment with *Pseudomonas fluorescens* 10g /kg of seed.
- Soil application of *Pseudomonas* and *Trichoderma viride* @ 2.5kg/ha (Each).
- Setting of *S. litura* and *Helicoverpa* Pheromone trap @ 12 per ha.
- Setting of Yellow sticky trap 12 per /ha.
- Need based application Azadiractin 0.03%.
- Installation of Solar Light Trap @ 1No./ha.
- Foliar application of Hexaconazole 0.1 % and imidachloprid 17.8 % SL 100 ml/ ac.

Season and year : Rabi 2020-21
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	M	227	7

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

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	5	5	4	4	-

Feedback from farmers : The farmers felt that IPDM technologies in Groundnut increased the yield and net income, reduced the application of pesticides with effective management of pest and diseases.

Feedback of the Scientist : The IPDM Technologies reduced the pest and diseases incidence viz, Root rot (7.66 %), Tikka leaf spot (8.65 %) and Spodaptera (6.77 %). Technologies found increasing the yield (21.33 %) and higher net return (53981.00/ha).

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	23.02.2021	15	-
2	Farmers Training	1	08.12.2020	12	-
3	Media coverage	1	10.12.2020	-	Circle TV
4	Training for extension functionaries	-	-	-	-

4. Demonstration-Bhendi hybrid CO 4

Crop : Bhendi
Thematic area : Varietal demonstration

Technology demonstrated :

- Resistant to Yellow Vein Mosaic Virus.
- Plants tall 135-150cm.
- Dark green, medium size fruits.
- Duration: 110 days. Yeld:25.6t/ha.

Season and year : Rabi 2020-21

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Clay loam	L	M	M	548.3	7

Source of fund : ICAR

No of locations (Villages) : 1 (Sathupperipalayam)

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	2	8	2	2	-

Feedback from farmers : The bhendi hybrid CO4 given higher yield and income. It is highly resistant to YVMV disease.

Feedback of the Scientist : The bhendi hybrid CO4 has recorded higher yield (16.07%) as compared to private hybrids(local check). It has high resistance to yellow vein mosaic virus (0.33%) as compared to local check (13.33%). The market preference is very good for the variety.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	4.3.21	25	-
2	Farmers Training	1	23.10.20	10	-
3	Media coverage	1	05.03.21	-	Public Digital
4	Training for extension functionaries	-	-	-	-

5. Demonstration of Ridge gourd COH1

Crop : Ridge gourd
Thematic area : Varietal demonstration

Technology demonstrated :

- Fruits are 40-45 cm long.
- Duration: 140-150 days.
- Less incidence of fruit fly.
- Less incidence of Downy mildew, Powdery mildew.
- Yield:34t/ha.

Season and year : Rabi 2020-21

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Clay loam	M	M	L	837	11

Source of fund : ICAR

No of locations (Villages) : 1 (Sathupperipalayam)

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	3	7	2	2	-

Feedback from farmers : The Ridge gourd hybrid COH1 given higher yield and income. The market preference was good.

Feedback of the Scientist : The Ridge hybrid COH1 has recorded higher yield (26.72%) as compared to private hybrids(local check). It has recorder higher fruit weight (393.51g) as compared to local check (327.61g)

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	25.03.21	20	-
2	Farmers Training	1	22.12.20	10	-
3	Media coverage	1	26.03.21	-	Kalam news
4	Training for extension functionaries	-	-	-	-

6. Demonstration of Integrated Crop Management in Brinjal

Crop : Brinjal
Thematic area : Integrated Crop Management

Technology demonstrated :

- NPK application based on soil test.
- Spraying of vegetable special @0.5% four sprays at monthly intervals.
- Soil application of neem cake@250 kg/ha & Arka microbial consortium @ 12.5 kg/ha.
- Installation of Yellow sticky traps @25/ha, Release of *T. chilonis* @ 5cc/ha.
- Installation of shoot and fruit borer pheromone trap @12/ha.
- Foliar application of Neem and Pongamia soaps@1%.
- Foliar application of flubendiamide 39.35%SC 150 ml/ha (Shoot and fruit borer).

Season and year : Rabi 2020-21
Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy clay loam	H	L	M	250	28

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	2	2	-

Feedback from farmers : The adoption of ICM technologies given higher yield and income. The quality of the fruits improved and fetched good market price.

Feedback of the Scientist : The adoption of ICM technologies resulted in 29.78% higher yield (345.475 Q/ha) as compared to farmer practice in brinjal. The produce fetched higher market price due to better quality. Farmers obtained higher income. The BCR recorded was 2.85.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	29.1.21	24	-
2	Farmers Training	1	29.09.20	10	
3	Media coverage	1	30.01.21	-	Public digital
4	Training for extension functionaries	-	-	-	-

7. Demonstration of Integrated Management against vector borne viruses in Chilli

Crop : Chilli
Thematic area : Integrated Pest Management

Technology demonstrated :

- Enrichment of FYM with Trichoderma/Arka Microbial consortium.
- Border cropping with 2 rows of maize (for sucking pests).
- Seed treatment with Seed pro @4g/kg and raising of seedlings under 40 mesh nylon net cover.
- Use of UV aluminium surface agri mulch for repelling insect vectors.
- Erection of yellow and blue sticky traps.
- Spraying insecticides in rotation with Fipronil (1ml/litre), Spinetoram 11.7%SC (1ml/litre),
- Imidacloprid 70% WG (2g/15litre) in combination with Neem oil (2ml/litre) at 7 -10 days interval until flowering and fruit formation.
- Foliar spray of Arka Vegetable special @ 2g/litre three times from 30 days after transplanting. Foliar spray of seaweed extract (sagarika) 2ml/litre.

Season and year : Rabi 2020-21
Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Rabi	Sandy clay loam	L	M	M	451.5	11

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

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	3	7	2	2	-

Feedback from farmers : The farmers felt that IPM technologies in Chilli sucking pest management had increased the yield and net income, reduced the application of pesticides with effective management of pests.

Feedback of the Scientist : The IPM modules reduced the sucking pest incidence viz, Thrips (3.96%), Mite (4.82%), Aphid (4.69). Technologies found increasing the yield (118.16 %) and higher net return (205635.00/ha).

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	27.07.2021	17	-
2	Farmers Training	2	12.11.2020, 08.02.2021	29	
3	Media coverage	2	09.02.2021	-	Kalam News, Public TV
4	Training for extension functionaries	-	-	-	-

8. Demonstration on management of Fall Army Worm in Maize

Crop : Maize
Thematic area : Integrated Pest Management

Technology demonstrated :

- Summer ploughing. Border crop with sorghum (2-4 rows advance sowing).
- Seed treatment with Cyatranilprole 19.8% + Thiamethoxam 19.8%(Fortenza duo 480FS) @ 2 ml/kg or thiamethoxam 30FS @ 10g/kg.
- One row of rogue space for every 10 row of maize for effective spraying.
- Intercropping with redgram.
- Installation of Pheromone traps@ 4 Nos/ac at the time of sowing.
- Collection and destruction of egg masses (8th day onwards).
- Azadirachtin10,000ppm @ 1 ml/lt(8 – 15 days after crop emergence). At 5-10% infestation
- Bacillus thuringiensis formulation @ 2 ml/lt or Metarhiziumanisopliae@ 2 ml/lt or
- Beauveriabassiana@ 5 ml/lt or Entomopathogenic nematode 20g/lt is recommended.
- If infestation is more than 10% spray Emamectin benzoate 5%SG @ 4g/lt or Spinetoram 11.7SC @ 0.3 ml/lt(30 – 60 DAS).

Season and year : Rabi 2020-21
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	M	H	M	675	13

Source of fund : ICAR
No of locations (Villages) : 1 (S.Nammiyanthal)

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	3	5	4	4	-

Feedback from farmers : The farmers felt that cultivation of maize with IPM practices has increased the yield, higher economic returns, low incidence of Fall army worm and reduced the usage of chemical pesticides.

Feedback of the Scientist : Cultivation of maize with IPM package has given increased yield (24.08%) and higher net returns (Rs.73991.00) with low incidence of fall army worm (12.46 %) compared to normal practice (31.96). The benefit cost ratio recorded was 2.15.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	19.03.2021	17	-
2	Farmers Training	1	28.10.2020	10	-
3	Media coverage	1	29.10.2020	-	Kalam News
4	Training for extension functionaries	-	-	-	-

9. Integrated Pest and Disease Management in Paddy

Crop : Paddy

Thematic area : Integrated Pest Management

Technology demonstrated :

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

Season and year : Kharif 2021

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Black clay soil	L	M	M	879.4	18

Source of fund : ICAR

No of locations (Villages) : 1 (Thiruvadirayapuram)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (ha)	Actual area (ha)	Justification for shortfall if any
10	5	5	4	4	-

Feedback from farmers : Adoption of IPDM technologies in paddy increased the yield and net income, reduced the application of pesticides with effective management of pest and diseases.

Feedback of the Scientist : The IPDM Technologies reduced the pest and diseases incidence viz, Stem Borer (4.55%), Tungro (3.96%), Blast (9.36%), BLB (10.21 %) and Leaf folder (4.52%). Technologies found increasing the yield (20.16%) and higher net return (46950.00/ha).

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	18.11.2021	19	-
2	Farmers Training	2	26.07.2021, 21.10.2021	26	
3	Media coverage	2	23.10.2021	-	Circle TV, Kalam News
4	Training for extension functionaries	-	-	-	-

10. Integrated Pest and Disease Management in Groundnut

Crop : Groundnut

Thematic area : Integrated Pest Management

Technology demonstrated :

- Planting of Castor as border crop and Black gram as Intercrop.
- Seed treatment with *Pseudomonas fluorescens* 10g /kg of seed.
- Soil application of *Pseudomonas* and *Trichoderma viride* @ 2.5kg/ha (Each).
- Setting of *S. litura* and *Helicoverpa* Pheromone trap @ 12 per ha.
- Setting of Yellow sticky trap 12 per /ha.
- Need based application Azadiractin 0.03%.
- Installation of Solar Light Trap @ 1No./ha.
- Foliar application of Hexaconazole 0.1 % and imidachloprid 17.8 % SL 100 ml/ ac.

Season and year : Kharif 2021

Farming situation :

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif	Red loamy soil	L	M	M	911.3	22

Source of fund : ICAR

No of locations (Villages) : 1 (Mummuni)

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	6	4	4	4	-

Feedback from farmers : The farmers felt that IPDM technologies in Groundnut increased the yield and net income, reduced the application of pesticides with effective management of pest and diseases.

Feedback of the Scientist : The IPDM Technologies reduced the pest and diseases incidence viz, Root rot (7.22 %), Tikka leaf spot (7.01 %), Helicoverpa (5.31) and Spodoptera (6.43 %). Technologies found increasing the yield (29.16 %) and higher net return (38017.00/ha).

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	17.11.2021	17	-
2	Farmers Training	3	16.08.2021, 01.09.2021, 27.10.2021	45	-
3	Media coverage	1	01.09.2021	-	Kalam News
4	Training for extension functionaries	-	-	-	-

11. Demonstration on RTU multigrain mix (EDP)

Crop : Instant mix

Thematic area : Processing and value addition

Technology demonstrated :

- Cereals, millets and pulses based products.
- Preparation of Chapathi, Roti, Health drink, Adai, Nutri ball, Cookies.

Season and year : Rabi 2020-21

Farming situation : Nil
 Source of fund : ICAR
 No of locations (Villages) : 1 (Kelur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	proposed (Unit)	Actual (Unit)	Justification for shortfall if any
10	2	8	1	1	-

Feedback from farmers : Easy to prepare and storage life is too good.

Feedback of the Scientist : The adoption of RTU multigrain mix are highly acceptable based on the high shelf life (120 days), Consumer acceptability (RTU multigrain based Chapathi, Roti, Health drink, Adai, Nutri balls) and its therapeutic properties. The BCR recorded was 3.06. RTU multigrain mix received high Consumer acceptability due to its therapeutic properties and can prepare variety of products from one mix.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	1	23.01.2021	10	-
3	Media coverage	1	24.01.2021	-	Kalam News
4	Training for extension functionaries	-	-	-	-

12. Demonstration on herbal powder in preparation of Millet cookies

Crop : Millet Cookies
 Thematic area : Processing and value addition

Technology demonstrated :

- Natural flavour and colouring agent.
- Rich in antioxidant. Immune enhancing properties.

Season and year : Rabi 2020-21
 Farming situation : Nil
 Source of fund : ICAR
 No of locations (Villages) : 1 (Vembakkam)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Proposed (Unit)	Area (Unit)	Justification for shortfall if any
5	1	4	1	1	-

Feedback from farmers : The flavor of the cookies sounds good and found to be very healthy snack.

Feedback of the Scientist : The adoption of Millet cookies (Ragi) with Thuthuvalai powder are highly acceptable based on the high shelf life (75 days), Consumer acceptability (based on texture, flavor and colour) and its therapeutic properties. The BCR recorded was 2.05. Consumer acceptability of Millet cookies (Ragi) with Thuthuvalai powder has been found most preferred by consumers and highly remunerative.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	1	15.03.2021	5	
3	Media coverage	1	15.03.2021	-	Kalam News
4	Training for extension functionaries	-	-	-	-

13. Demonstration on vegetable seedling transplanter

Crop : Seedling transplanter

Thematic area : Farm Mechanization

Technology demonstrated :

Vegetable Transplanter is suitable for transplanting of vegetables like tomato, chili, brinjal and Using this Transplanter one person can plant 6000 seedlings per day . Cone opens both sides so less soil displacement. Healthy roots.

Season and year : Kharif 2021

Farming situation : Irrigated

Farming situation	Season	Soil type	Fertility status			Seasonal rain fall (mm)	No. of rainy days
			N	P	K		
Irrigated	Kharif 2021	-	-	-	-	-	-

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
5	-	5	1	1	-

Feedback from farmers : Easy to handle, saves 65% man days per hectare.

Feedback of the Scientist : The adoption of vegetables seedling transplanter (Efficiency /day/labour/ha) resulted in 108 % labour efficiency higher than farmers practice and farmers saved labour cost. The BCR recorded was 3.20.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	22.10.2021	21	-
2	Farmers Training	3	20.07.2021, 13.08.2021 29.09.2021,	32	-
3	Media coverage	2	21.07.2021	-	Circle TV, Kalam News
4	Training for extension functionaries	-	-	-	-

14. Income generation by promotion of dehydration of vegetables using solar drier

Crop : Vegetables
Thematic area : Processing and value addition

Technology demonstrated :

- Removing moisture from food restrains various bacteria from growing and spoiling vegetables.
- Dehydrators are used to preserve and extend the shelf life of various

Season and year : Kharif 2021
Farming situation : Nil
Source of fund : ICAR
No of locations (Villages) : 1 (Chithathur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Proposed	Actual	Justification for shortfall if any
10	10	0	1 Nos	1 Nos	-

Feedback from farmers : The cost of the drier is too high and it won't be suitable for small scale entrepreneurs.

Feedback of the Scientist : The adoption of solar drier for the dehydration of vegetables improved shelf life 140 % (180 days) as compared to farmers practice and farmers obtained higher income. The BCR recorded was 4.00.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	2	29.07.2021, 30.07.2021, 25.11.2021	26	-
3	Media coverage	2	30.07.2021	-	Circle TV, Kalam News
4	Training for extension functionaries	-	-	-	-

15. Demonstration of Nandanam chicken-IV under backyard condition

Crop/Enterprises : Poultry birds (Aseel)
Thematic area : Production and Management

Technology demonstrated :

- Deworming, deticking and vaccination of chicks.
- Feeding management.

Season and year : Rabi 2020-21
Farming situation : -
Source of fund : ICAR
No of locations (Villages) : 1 (Sathupperipalayam)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (No of birds)	Actual area (No of birds)	Justification for shortfall if any
10	2	8	250	250	-

Feedback from farmers : The Nandanam Chicken IV chicken laying dark brown shelled eggs with thick shell hence it is easy to sell. Family laborers who are not able to perform other works like old family members or children can look after the poultry farming. Poultry farming acts as an ATM, because as per family need the birds and eggs can be sold at any time with cash in hand. It provides additional income for the family.

Feedback of the Scientist : It is concluded that performance of Nandanam Chicken IV in terms of age at first egg laying, egg production and body weight was much better in comparison to local variety under backyard system of poultry rearing. So farmers from rural areas can rear Nandanam Chicken IV birds for their livelihood and nutritional security.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	4	24.10.20, 04.11.20 27.01.21 26.03.21	52	-
3	Media coverage	2	28.01.21	-	Circle TV, Kalam News
4	Training for extension functionaries	-	-	-	-

16. Demonstration of Nandanam quail III

Crop/Enterprises : Japanese quail
Thematic area : Production and Management

Technology demonstrated :

- Deworming, deticking and vaccination of chicks.
- Feeding management.

Season and year : Rabi 2020-21
Farming situation : -
Source of fund : ICAR
No of locations (Villages) : 2 (Kilnelli and Chithathur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (No of birds)	Actual area (No of birds)	Justification for shortfall if any
10	10	-	1000	1000	-

Feedback from farmers : The Nandanam quail III attain the weight within the month for selling purpose and also lay eggs. Hence, it is easy to sell. Family laborers who are not able to perform other works like old family members or children can look after the farming. As per family need the Quails and eggs can be sold at any time with cash in hand. It provides additional income for the family.

Feedback of the Scientist : It is concluded that performance of Nandanam quail III in terms of age at first egg laying, egg production and body weight was much better in comparison to locally available breeds. So farmers from rural areas can rear Nandanam quail III for their livelihood and nutritional security.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	2	23.12.20 29.01.21	26	-
3	Media coverage	1	30.01.21	-	Kalam News
4	Training for extension functionaries	-	-	-	-

17. Demonstration of Integrated Disease Management in goat

Crop/Enterprises : Goat
Thematic area : Disease Management

Technology demonstrated :

- Deworming, deticking and vaccination of chicks.
- Feeding management in goat.

Season and year : Rabi 2020-21
Farming situation : -
Source of fund : ICAR
No of locations (Villages) : 1 (Vazhur)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (No of goats)	Actual area (No of goats)	Justification for shortfall if any
10	2	8	100	100	-

Feedback from farmers : The farmers are facing kid mortality due to many diseases and improper management practices. After implementation of integrated disease management in Goat including vaccination and deworming the kid mortality was reduced and the goats attained high body weight and in turn net income was high comparatively.

Feedback of the Scientist : It is concluded that the farmers are ready to adopt the technology of integrated disease management in Goat, because the benefit from this technology was realized by the farmers. Due to unawareness of technology the farmers are not adopting.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	3	19.08.20 25.09.20 22.12.20	37	-
3	Media coverage	2	22.12.20	-	Circle TV, Kalam News
4	Training for extension functionaries	-	-	-	-

18. Demonstration of ethno veterinary medicine for treatment of mastitis in cow

Crop/Enterprises : Cow
Thematic area : Disease Management

Technology demonstrated :

- Ethno Veterinary Practices.
- Disease management and Hygienic practices in Dairy farm.

Season and year : Rabi 2020-21
Farming situation : -
Source of fund : ICAR
No of locations (Villages) : 1 (S.Nammiyandal)

No. of demonstrations	No of SC/ST Farmers	No of Farmers and women farmers	Area proposed (No of goats)	Actual area (No of goats)	Justification for shortfall if any
10	0	20	20	20	-

Feedback from farmers : The productivity of the animal was reduced due to incidence of mastitis. After demonstration of ethno veterinary medicine for treatment of mastitis, the milk production drastically increased. The critical input required for treatment is locally available. Application of medicine is also easy.

Feedback of the Scientist : It is concluded that Ethno veterinary medicine for treatment of Mastitis is beneficial to the farmers. The awareness about the Ethno veterinary medicine needs to be created among the farmers.

Extension activities on the FLD:

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	-	-	-	-
2	Farmers Training	5	23.10.20 21.11.20 30.01.21 26.02.21 25.03.21	67	-
3	Media coverage	1	30.01.21	-	Dinakaran paper, Kalam News
4	Training for extension functionaries	-	-	-	-

4.3 Extension Studies : -

5. Technology Week Celebration : Nil

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

Name of the staff	Title	Dates	Duration	Organized by
Mr.V.Suresh SMS Agrl.Extension	Webinar on Basic Programme on Farmers Producer organisation	19-01.2021 to 21-01.2021	3 days	BIRD, Mangaluru
Mrs.T.Margaret SMS Home Science	Webinar on Basic Programme on Farmers Producer organisation	19-01.2021 to 21-01.2021	3 days	BIRD, Mangaluru
Dr.K.Mayakrishnan SMS Animal Science	Webinar on Basic Programme on Farmers Producer organisation	19-01.2021 to 21-01.2021	3 days	BIRD, Mangaluru
Mr.P.Narayanan SMS-Plant Protection	Webinar on Furtherance in Integrated Pest Management approaches to ATARI Zone X	02-03-2021 to 04-03-2021	3 days	NCIPM, New Delhi
Dr.K.Mayakrishnan SMS-Animal Science	Webinar on E-learning training programme on FPO	27-04-21 to 29-04-21	3 days	BIRD, Mangaluru
Dr.K.Mayakrishnan SMS-Animal Science	Webinar on Virtual training on Integrated Farming System for doubling farmers income	17-06-2021	One day	DEE, TNAU and ICAR ATARI, Hydrabad
Mr.N.Rameshraj SMS Horticulture	Webinar on IFS for doubling the farmers income	17-06-2021	1 day	DEE, TNAU, Coimbatore and ICAR – ATARI, Hyderabad
Miss.M. Ishwarya, SMS – Agronomy	Webinar on IFS for doubling the farmers income	17-06-2021	1 day	DEE, TNAU, Coimbatore and ICAR – ATARI, Hyderabad
Mr.N.Rameshraj SMS Horticulture	Webinar on Dragon fruit cultivation	25-06-2021	1 day	IIHR, Bengaluru

Mr.V.Suresh SMS Agrl.Extension	Webinar on Future of Agricultural Extension	10-07-2021	1 day	MANAGE, Hyderabad
Mrs.T.Margaret SMS Home Science	Webinar on Interaction workshop on gender and nutrition network project	03-08-2021	1 day	ATARI, Zone IX, Jabalpur
Mr.N.Rameshraj SMS Horticulture	Webinar on Organic agriculture	04-08-2021	1 day	Department of Sustainable Agriculture, TNAU, Coimbatore
Miss.M. Ishwarya, SMS – Agronomy	Webinar on Organic agriculture	04-08-2021	1 day	Department of Sustainable Agriculture, TNAU, Coimbatore
Mr.P.Narayanan SMS-Plant Protection	Webinar on Mushroom and mushroom spawn production training	09-08-2021 to 11.08-2021	3 days	IIHR, Bengaluru
Mr.N.Rameshraj SMS Horticulture	Webinar on Commercial production and utilization of exotic fruits and vegetables	16-12-2021	1 day	UAS, Bengaluru

7. Details of sponsored projects/programmes implemented by KVK

S. No	Title of the programme / project	Sponsoring agency	Objectives	Duration (Days)	Amount (Rs)
1	Bridging the skill gap of CEO's and BOD's of Farmer Producer Companies through systematic Capacity Building module" under the Capacity building for Adoption of Technology (CAT)	NABARD, Thiruvannamalai	<ul style="list-style-type: none"> ▪ To enhance the knowledge on specific and shared roles of BoD' and CEO's in the FPO. ▪ Create awareness on the difference between Governance and Management among BoD's and CEO's. ▪ To improve effective interpersonal communication and leadership qualities among BoD's and CEO's. 	3	126500.00
2	Seed Production Technologies in Oilseeds" under the Capacity building for Adoption of Technology (CAT)	NABARD, Thiruvannamalai	<ul style="list-style-type: none"> ▪ To enhance the knowledge of farmers especially farmers' club members on Quality seed production in oilseeds. ▪ To ensure timely availability of quality seeds to the farmers by encouraging farming community to involve seed production in oilseeds. ▪ To improve the productivity of oilseed crops and income of farmers. 	3	110250.00

8. Success stories

I. Blackgram VBN 8-An income and yield booster of pulse growers

Farmer Detail : Mr. S. Sekar S/o Suburayan
Kilsembedu village, Vandavasi taluk.
Thiruvannamalai district.

1. Situation analysis/Problem statement

Mr.S.Sekar S/o Mr. Subburayan aged 45 from Kilsembedu village of Vandavasi block is holding one hectare. He has been cultivating old blackgram varieties in one hectare and got yield of nearly 6 quintals. His net income was Rs.26,800. 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.

2. Plan, Implement and Support:

He had attended five training programme on ICM in pulses organized by the KVK. Training covers seed treatment practices irrigation management, weed management, nutrient management and pest and disease management practices. The VBN8 blackgram



variety has been introduced to the farmer in the year 2018 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 *Rhizobium* and *Phosphobacteria* before sowing
- Soil test based fertilizer application.
- Spraying of Pulse wonder during flowering and pod filling stages of blackgram.
- Multi bloom technology.

4. Output:

By witnessing the economic benefits achieved by this farmer, other farmers are also showing interest in organic inputs in their fields to reduce the cost of inputs and to increase the quantity and quality of products.



Due to positive result of the variety a total of 124 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 blackgram variety VBN 8 the yield increased to 9 quintals and net income raised to **Rs. 48,200/-** and he also involved in seed production of black gram

6. Impact:

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

II. Enhancement of income through improved banana farming

Farmer's details : **Mr.K.Karunakaran** S/O Kannan
Padavedu village and post, Polur taluk,
Thiruvannamalai Dist – 606905
Mobile No.: +91 9843054146

1. Situation analysis/Problem statement

Shri. Karunakaran S/o. Kannan is a banana farmer in Padavedu village of Polur taluk in Thiruvannamalai district. He owns 4 acre of land. Banana has been cultivated on commercial scale in 3 acre of land and the remaining 1acre has been allotted for paddy cultivation to meet out his family's food requirement.

He depends mainly on banana for his family's income. But, the productivity of banana started declining and the cost of cultivation was on increasing trend which was mainly due to severe incidence of pest and diseases and nutrition problems. It was during the time, his village selected as operational village for the KVK interventions.

2. Plan, Implement and Support:

As the Padavedu village is known for banana in Thiruvannamalai district, the KVK has selected this village as adopted village for implementing various activities for enhancing the income of the banana growers.

Mr.Karunakaran,a progressive banana grower in Padavedu village, shown very good interest on KVK programmes and technologies. He participated in the FLD programmes on Integrated Crop management, Integrated Pest and Disease management in banana implemented in his village. In addition, he participated in the trainings conducted by KVK on precision farming in banana and gained technical knowledge and confidence. He also visited various Horticultural Research Stations, National Research Centre for Banana,



Universities in Tamil Nadu and interacted with eminent scientists on banana cultivation by participating in the educational tour organized by KVK.

Intervention technology

By keeping the confidence on the advanced technologies gained from KVK, he cultivated banana (Karpooravalli) in three acre of his land. He adopted below mentioned technologies with technical backup of KVK.

- Foliar and bunch spray of banana special (Micro nutrient formulation) released by IIHR, Bengaluru.
- Varietal rotation and crop rotation.
- Bunch feeding and bunch covering.
- Ratoon management, green manure.
- Integrated Plant Nutrition System with major emphasis on fertigation, vermi composting and neem cake application as per the soil fertility status.
- Precision farming technologies with major focus on fertigation and irrigation management.
- Integrated Pest and Disease Management with major focus on soil application of *Pseudomonas fluorescens* and *Trichoderma viride*, Pairing and pralinage with carbofuran.
- Corm injection with bavistin, stem injection with azhadirachtin, application of bio fungicide and nematicide for panama wilt management.

3. Output:

As a result of adoption of improved technologies, effective utilization of resources and market demand driven production approach, he succeeded in banana cultivation by obtaining an yield of 645.66 Q/ha which was 26.75 percent higher when compared to average yield obtained by other farmers in the locality. He obtained an income of Rs.516528 ha⁻¹ in banana cultivation. An additional net gain of Rs. of Rs.209791 ha⁻¹ was accrued by him with a higher B: C ratio of 3.3 : 1.

4. Outcome :

After seeing the effectiveness of improved technologies adopted by Mr.Karunakaran, other banana growers in the locality have started adopting the same. At present, the technologies have spread over an area of 155 acre in the locality and it is expected to increase further.

5. Impact

After realizing the economic benefits obtained by this farmer, other farmers in the locality have started cultivating banana on large scale. As a result, 125 man days of additional employment is generated for each hectare increase in area.

III. Apiculture – An alternative enterprise to boost the crop yield and sustainable income

1. Situation analysis/ Problem statement:

Thiruvannamalai district is known for diversified crop growing viz., Paddy, Pulses, Groundnut, Brinjal, chillies, gourds, tomato, Banana, Coconut etc. are cultivated in considerable areas.

The farmers are getting low yield and income because of mono cropping, high cost of agricultural inputs, non-availability of labour, deficit rainfall, non-adoption of advanced technologies and devastation of natural pollinators by indiscriminate application of chemical pesticides. In this situation bee keeping emerged an alternative sustainable agriculture practice to fulfil employment problem in the district and also bee keeping became a profitable enterprise in the rural areas.

2. Plan, implementation of activities and support by KVK

Keeping this in view, the KVK Thiruvannamalai had taken many steps to promote bee keeping in the farmers' fields to enhance the yield through cross pollination and create the alternate income generation to the unemployed rural youth. The details of activities implemented by the KVK are detailed hereunder.

Training conduction :

World honey bee day programme (20.05.2021), one on campus training and two number of off campus training programme were conducted by the KVK for the knowledge updation of farmers. During the programmes, the trainees are exposed to hands on practices on different aspects of bee keeping. Totally 81 farmers participated in the programme.

Conduction of Special programme:

To create awareness on bee keeping the KVK Thiruvannamalai and TVS Jamunamarathur had collaboratively conducted four training programmes. The training programme was sponsored by NABARD, Thiruvannamalai. A total of 100 tribal farmers participated in the event. A 32 of them started bee keeping in their own field.



Mass Media coverage:

For the wider coverage of farmers, the KVK Thiruvannamalai had recorded a programme on bee keeping technologies and the programme was telecasted in Makkal TV.

Distribution of technical literature:

The technical literature on bee keeping technologies were distributed to farmers for the wider coverage of technical information.



Bee box supply and advisory service:

The TVS, Jamunamarathur and KVK supplied 350 bee boxes with bee colonies to farmers. The KVK scientists have made the need based visits to the bee farming fields and addressed their problems.

3. Output:

As a result of the various interventions and technological support by the KVK Thiruvannamalai a total of 9 farmers had started bee keeping in their farms. Resulted in productivity enhancement through pollination and also created small scale employment.

S. No	Farmer Name	Village	No. of hives	Crops	Yield increase (%)	Additional income* (Rs./ha)
1	Mr.Paranjothi	Perungattur, Vembakkam	4 box	Sapota & Vegetables	10.21	8160.00
2	Mr. Boobalan	Enathavadi, Cheyyar	5 box	Coconut & Vegetables	9.27	7400.00
3	Mrs.Rekha	Iyyampalayam, Arni	5 box	Coconut & Vegetables	9.86	6300.00
4	Mr.Vasudevan	Vazhoor, Vandavasi	2 box	Vegetables	10.41	8700.00
5	Mr.Parthasarathi	Athanoor, Arni	4 box	Fruit Orchard	12.34	12500.00
6	Mr.Govindasamy	Athanoor, Arni	1 box	Coconut & Vegetables	10.12	8700.00
7	Mr.Gandhi	Barathanthangal, Cheyyar	4 box	Vegetables	8.21	6500.00
8	Mr.Varathan	Tiruvadirayapuram Vembakkam	2 box	Coconut & Vegetables	8.45	7200.00
9	Mr.Muthusamy	Nammiyampattu, Jawadhuhills	20 box	Vegetables	9.35	22500.00

Note : * Income from crops and bee hives/year

4. Outcome:

By seeing the economic benefits accrued by the bee keeping farmers, other farmers are also showing interest in bee keeping in their fields. Due to positive result of the technology, bee keeping has spread to 213 farmers with the support of State department of Horticulture and Non-Governmental Organisation. It is one of the significant achievements of KVK.



5. Impact:

The requirement of pure honey has been increasing year by year due to high nutritional properties of honey and very good demand in market. Honeybee is playing vital role in cross pollination and it increases the crop yields in an area of 2 Km surroundings from the bee hives. As the farmers shows interest in bee farming, the state department of Horticulture, NGOs and private organization have been supporting the farmers by providing free trainings, supplying bee hives and creation of marketing facilities in linkage with other stakeholders. Adoption of this bee keeping technologies in Thiruvannamalai district can significantly increase the district yield in upcoming years and also reduce the migration of people through developing small scale entrepreneurship among unemployed rural people.

IV. Livelihood security of poultry farmer through rearing of Nandanam Chicken-IV under Backyard condition

1. Situation analysis/Problem statement:

Poultry is an imperative factor for improving nutritional security to the rural poor. Rural poor rear local type of chicken with low egg and meat production in backyard system, poor hatchability and high mortality. In poultry sector impressive growth has been achieved in intensive poultry meat production in India, but rural poultry sector remained restricted due to less research and low production potential nature of native chicken breeds.



2. Plan, Implement and Support:

ICAR KVK Thiruvannamalai implemented a FLD on Demonstration of Nandanam Chicken IV rearing under backyard condition. Also KVK had organised four numbers of one day both on and off campus training on Backyard poultry farming on selection, handling and brooding, feeding, disease management, hatchery operation and chick management including scientific method of backyard poultry farming with Nandanam Chicken IV.

3. Output: Mr.A.Vadivel an innovative farmer from Sathupperipalayam village of Arni



Block, Thiruvannamalai District, Tamil Nadu was successful in backyard poultry farming with Nandanam Chicken IV. He is 31 years old, qualified in 11th standard, he used to rear local bird for the regular source of income and he could able to get very low income. Mr.A.Vadivel was unaware about of improved poultry variety (Nandanam Chicken IV) for higher income generation than local variety, KVK, Thiruvannamalai has selected him one of the FLD farmer and trained on scientific management of backyard poultry rearing. Input like Nandanam Chicken IV two week old chicks (20+5) was supplied. As a result of technological intervention by the KVK, Thiruvannamalai the farmer had obtained good revenue. Backyard poultry rearing with

Nandanam Chicken IV with 20+5 numbers along with improved rearing technologies of poultry farmer can get Rs. 37,000.00 /year. Small and marginal farmer can get more income through backyard poultry rearing with improved varieties of chicken.

4. Outcome In the Sathupperipalayam village of Thiruvannamalai district is around 52 farm families are rearing Nandanam Chicken IV under backyard condition. In the district whole more than 300 farmers are rearing Nandanam Chicken IV under backyard condition.

5. Impact: Nandanam Chicken IV is significantly effective in the prevention of poverty in rural poor concerning difficult environmental conditions and unemployment, rural youth can better engage in backyard poultry farming for higher income generation and nutritional support.

V. Entrepreneurship through value addition in Fruits and Vegetables

Name of the Farmer : Mr. K.Vijayagand S/o. Mr.Kannan
Kilsenpagathoppu village, Polur Taluk,
Thiruvannamalai District – 606905.

1. Situation analysis/Problem statement

Mr.Vijayagand S/o Mr.Kannan aged 31 is a millet farmer belongs to scheduled tribe's community of Polur taluk of Thiruvannamalai District. He owned one acre of land and he was regularly engaged as wage employee at nearest area of Padavedu. But, he 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.

In this situation Mr.Vijayagand was heard about KVK trainings programme on income generation related activities jointly organized by Department of Agri Business and Marketing. He was continuously approaching the KVK to enroll his name in the training Programmes.

2. Plan, Implement and Support

He has been attending six days residential training programme on Fruits and Vegetable preservation and millets based value added products organized by KVK Since March 2015. He enrolled the course because he resides foot hill of Jamunamarathur block and its very close to A.K.Padavedu. He's having large area under fruits viz.,Amla, Mango, banana etc, vegetable viz., tomato and chillies and millets (Little millets). After completion of trainings, he started collecting all the information through SMS – Home Science and finally he has decided to start Fruits and Vegetable Preservation unit on his own as trial basis.

3. Output

Our KVK scientists continuously motivating him for the expansion of the production cum preservation unit by visiting him on a regular basis. Initially he was facing the problems on purchase of packing materials (hesitates how it will succeed), preservatives, obtain **FSSAI** license, labeling and marketing. The KVK provided technical support for all types of

sourcing materials for packing, licensing and branding directly to him. Moreover guidance and linkage to suppliers, traders and licensing authorities was made to him directly.

Intervention techniques

After the all arrangements made by him, he started the production and preservation



unit for fruits and Vegetables in his native place during 2016-17. Initially he started preparing amla, banana and tomato based products like pickles. He sold his products at nearest village of Padavedu and Jamunamarathur Monday market regularly. In this situation pickle receives higher interests among the consumers in terms of taste and shelf

life. He named his production unit as **Jawadhu Hill products**. After receiving consumer preferences and interests, he was planning to include other seasonal fruits and vegetable based pickle varieties. He standardizes all his products by use of quality raw materials during processing, preparation under hygienic condition, use of recommended quantity of preservatives, packing and labeling.

This unit is entirely maintained by his family members. He procures seasonal fruits and vegetable from nearby areas on need basis.

4. Outcome

By hearing and seeing the economic return obtained by Mr.K.Vijayagand, other neighbors and locality have started to Pickles production units. At present there are two units were established and functioning effectively in Polur Block and it is expected more units will be established in the forthcoming years.

5. Impact

Mr.K.Vijayagand regularly supply the pickles and millet rice varieties to nearby area local shops, A.K.Padavedu temple and Jamunamarathur Monday market. The price of one Kilo gram products average price is Rs.200/-. The average production capacity of the unit is 50-60 kg per week. He is earning an amount Rs.32,000/- per month as net income from all his units. Now he is selling product by his own vehicle (TATA Ace) to reach every village.

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

Video Consultations

The Krishi Vigyan Kendra and the Reliance Foundation collaborately organizing the video dial out conference focusing on providing advanced technical information to farmers instantly across the district. The Technical information to provide instant solution to the soil issues, pest and disease problems, seed availability, preventive measures against livestock diseases and marketing information..

This practice enables the farmers to adopt better decisions on crop management, nutrient deficiencies, pest and disease management practices. Need based video dial out conferencing will be arranged by the messengers at the village level whenever the farmers facing issues during crop cultivation. The farmers were given chance to interact with the scientists directly for the better management practices.

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Paddy	Soaking the paddy seeds in diluted cow's urine before sowing,	To reduce the incidence of leaf spot and blast
		10 kg. of cow dung ash is mixed with 2 kg. of lime powder and 1 kg. of powdered tobacco waste and dusted on the rice crop during morning hours.	To control earhead bugs
		Palmyra (Borassie flabellifer) fronds are tied on to poles and kept on the corners of rice fields.	To control grain damage by birds like ducks and sparrows
		Dusting chulah ash in the early morning to control the pests of vegetable crops.	To control the sucking pests.
		Tiding of ropes by using stakes for sitting of birds in field.	To control caterpillars
2	Groundnut	Dried sorghum or coconut leaves are powdered and boiled in water to 60 C for one hour, filtered, diluted and sprayed for two times at 10 and 20 days after sowing.	To control ring mosaic
		Neem oil solution 4% or neem kernel extract 6% is sprayed	To control rust disease
3	Milch animal	Turmeric powder, Alovera gel and lime	For mastitis treatment
4	Fruits and vegetables	Spraying of butter milk	For flower induction and control flower drop.

Photographs for ITK Technologies



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



11. Impact of KVK activities

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Introduction of paddy variety ADT 53	746	63	72430.00	86600.00
Introduction of little millet ATL-1	86	78	69000.00	90900.00
Introduction of Blackgram Vamban8	100	92	37500.00	53600.00
Precision farming in cucurbits	366	68	720588.00	927322.00
Protray Seedlings Production in Solanaceous Vegetables.	1061	70	170250.00	258650.00
Cultivation of CO1 chilli hybrid	605	66	414400.00	489700.00
Precision farming in banana	311	59	570350.00	655550.00
Integrated Crop Management in Brinjal	732	71	354870.00	414665.00
Cultivation of improved bhendi hybrid CO4	213	70	325265.00	374542.00
Foliar Nutrition in vegetables	1998	85	586200.00	772750.00
Integrated Pest and Disease Management in paddy	1732	60	67450.00	83120.00
Management of maize fall army worm (FAW)	291	63	72300.00	89610.00
Integrated Panama wilt management in Banana	142	69	435490.00	512680.00
Integrated Pest and Disease Management in Brinjal	203	62	235610.00	273560.00
Mushroom production	121	45	3100.00/ Month	7800.00/ Month
Beekeeping technologies	289	61	6900.00/ Month	11200.00/ Month
Fruits and vegetable preservation	582	28	Rs.6,400.00/ Month	Rs.22,000.00/ Month
Value addition in milk	232	27	Rs.8,500.00/ Month	Rs.21,000.00/ Month
Preparation Instant mix	216	22	Rs.6,000.00/ Month	Rs.26,000.00 /Month

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

Sl. No.	Name of specific technology/skill transferred	Source of technology	No. of farmers	Extent (ha)	Increase in net return Rs/ha	Economic Impact /benefit (Rs) (5X6)	KVK Intervention OFTs/FLDs/ Trainings	Convergence /Partners involved in up scaling of technology	Remarks
1	2	3	4	5	6	7	8	9	10
1	Direct Seeded Rice technology	TNAU	67970	45860	25860	1,18,59,39,600	Three Front Line Demonstration conducted covering 12 ha and 30 farmers. Organized 26 trainings covering 426 farmers.	State Department of Agriculture, Thiruvannamalai	Yield increased 23.10%
2	Integrated pest and disease management in paddy	TNAU	1732	2386	8650	2,06,38,900	Conducted Six front line demonstration covering 60 farmers and organized 23 training programme with 332 famers	State Department of Agriculture, Thiruvannamalai	Yield increased 20.16 %
3	Demonstration on Blackgram Variety VBN 8	TNAU	3021	1823	24310	4,43,17,130	Four Front Line Demonstration conducted covering 85 ha and 220 farmers. Organized 34 trainings covering 680 farmers.	State Department of Agriculture, Thiruvannamalai	Higher yield - 23.07 %

4	Improved spiny brinjal VRM1	TNAU	1198	280	88699	2,48,35,720	Two Front Line Demonstrations conducted covering 4 ha and 20 farmers. Organized 10 trainings covering 205 farmers.	State Department of Horticulture, Thiruvannamalai	Yield increased by 29.78%
5	Improved Chilli hybrid CO1	TNAU	474	99	88950	88,06,050	Two Front Line Demonstrations, Two OFTs conducted covering 5 ha and 30 farmers. Organized 12 trainings covering 184 farmers.	State Department of Horticulture, Thiruvannamalai	Yield increased by 24.54%
6	Fruit and vegetables preservation for income generation	TNAU	23	14 units	18900/unit/month	2,64,600	One Front Line Demonstration and one OFT conducted covering 25 farmers. Organized 26 trainings covering 361 farmers.	State Department of Agriculture and SST NGO, Padavedu	Annual income of the farmers increased .
7	Millet and pulses based instant mix preparation for income generation	TNAU	8	8 units	3560/unit/month	28,480	One Front Line Demonstration conducted covering 10 farmers. Organized 16 trainings covering 288 farmers.	State Department of Agriculture and SST NGO, Padavedu	Annual income of the farmers increased .

13. Cases of large scale adoption/impact of specific technologies

IIHR Vegetable Special – A real yield booster among the vegetable growers in Thiruvannamalai district.

A. Situation analysis / problem statement

The area under vegetable crops in Tamil Nadu increased to 2.56 lakh ha in 2017 with an annual production of 6304 million tonnes. Adoption of high yielding cultivars and F1 hybrids and suitable production technologies has largely contributed to the production and productivity. With changes in incomes and consumption patterns, demand for vegetables has been increasing every year.

In Thiruvannamalai district, the area under vegetable crops is 4260 ha. The major vegetable crops cultivated in the district are cucurbits (Cucumber, Gourd, Watermelon, pumpkin), solanaceous vegetables (Brinjal, Bhendi, Tomato, Chilli), and leafy vegetables. The vegetable growing has been one of the main sources of income for larger number of farmers in the district.

Problems identified

Farmers in Thiruvannamalai district are spending huge money on fertilizers. It is of great concern that each farmer is spending about 60-70 % of cost of production only on fertilizers. KVK has conducted a survey in the vegetable growing area in the district revealed that farmers are applying fertilizers indiscriminately. No farmer is aware of recommended dosage of fertilizers for vegetable crops. The role of micronutrients was known to very few farmers. The yield and income levels of vegetables have started fluctuating due to problems mentioned here under :

- Imbalanced nutrition
- Lack of micronutrient application and organic addition
- Reduction in soil fertility

B. Plan, implementation of activities and support by KVK

The KVK has acquired from IIHR, Bengaluru the successful technology called Vegetable special, a micronutrient formulation which can boost the yield in vegetable crops by 20-30%. In order to make available the product in the locality for the easy adoption by farmers, the KVK has established the vegetable special production unit and supplying it to farmers since 2014.

Benefits of vegetables special:

- Higher yield (20-30 %).
- Improved quality of vegetables
- Better colour and uniform size vegetables.
- Higher keeping quality

The KVK has included vegetable special as one of the important critical inputs in its activities related to vegetable crops under OFT/FLD, trainings and other extension activities.

The details of the KVK activities are given hereunder:

Name of the activity	No. of programmes	No of farmers benefitted
On Farm testing	4	22
Front Line Demonstration	10	100
Trainings	51	768
Extension activities	36	860
Total	101	1750

Apart from the above activities, awareness on vegetable special technology being created through various in house, off campus and sponsored trainings in collaboration with Department of Horticulture across the district. After seeing the positive results of the technology, it is rapidly spreading to other vegetable growers existing in the district.

C. Output

- Farmers stated that an increase in yield by 20 to 30% was recorded in tomato, brinjal, chillies and gourd crops after using recommended quantity of vegetable special as foliar spray for 3-4 times.
- By using the technology, farmers feel that the quality of the produce in terms of size, weight, taste was also improved.
- The cost on fertilizer also minimized by 15% as the technology has all the required micronutrients.
- The technology also proved that it gives more resistance to crop against pest and diseases.

Details of change in yield and income

Parameters	Tomato		Brinjal		Chillies		Gourds	
	BI	AI	BI	AI	BI	AI	BI	AI
Yield (Q/ha)	463.35	596.12	271.38	344.61	24.63	29.53	342.62	428.20
Yield increase (%)	-	28.65	-	26.98	-	19.89	-	24.98
Net income (Rs.)	176908	270247	210855	246331	85249	153962	234332	349721
BCR	2.27	2.98	2.57	2.92	1.86	2.59	2.41	3.15

Note : **BI** : Before Intervention, **AI** : After Intervention

D. Outcome

The IIHR Vegetable special technology has spread over an area of 980 hectares in Thiruvannamalai district due to the effort taken by KVK in collaboration with State Department of horticulture and it is expected to reach all the vegetable growing area of the district very soon.

E. Impact

There has been a constant increase in the area and productivity of vegetables in Thiruvannamalai district. Use of IIHR vegetable special is directly contributing an average yield increase by 20-30 % in vegetable crops. As the technology has been used by 6120 farmers in 1153 ha as of now, the demand for vegetable special is increasing regularly not only from Thiruvannamalai district, but also from neighboring districts after seeing the positive results by the farmers.

14. Details of impact analysis of KVK activities carried out during the reporting period

❖ Impact Analysis of Black gram VBN 8 variety in Thiruvannamalai district

To replace the old varieties in blackgram, the KVK has introduced VBN 8 blackgram variety in the year 2017, it fetches good market price in the local market. Owing to the short duration nature, resistant to Yellow Mosaic Vein and few pests, higher yield, this variety has earned very good response and name from the farmers.

As a result of the intensive efforts of KVK in collaboration with line department for the past four years, this variety has spread over an area of 1162 hectares in Thiruvannamalai district. The average yield obtained by farmers cultivating VBN 8 blackgram is 724 kg/ha which is 65.57% higher than the district productivity compared to other old varieties. The average net income obtained by the farmers was Rs.23,020/- per hectare.

❖ Impact analysis of IIHR- vegetable special in Thiruvannamalai district.

The KVK has demonstrated foliar application of vegetable special, a micro nutrient formulation developed by IIHR (Indian Institute of Horticultural Research), Bengaluru. About 6482 farmers have gained knowledge on the technology directly through various activities of KVK viz., training, demonstrations and extension activities. In order to make the technology (Vegetable special) locally available to the farmers, the KVK has acquired the vegetable special technology from IIHR and supplied to farmers at nominal cost.

It has been recorded that adoption this technology has improved the yield to an extent of 25 to 30 % in almost all the vegetable crops it was applied. The technology has been adopted in an area of about 1153 hectares in Thiruvannamalai district and it is expected to reach all the vegetable growing area of the district very soon.

15. Linkages

Functional linkage with different organizations

Name of organization	Nature of linkage
District collector office	Technical assistance during monthly Farmers Grievance and Skill trainings
State Dept. of Agriculture	Trainings and Demonstrations in various blocks under ATMA project. Conduction of field days under FLD, Farm Advisory Services.
State Dept. of Horticulture	
Department of Agri Business and Agri Marketing.	Trainings and Demonstrations in fruits and vegetable preservations, Marketing linkage of FPO.
State Department of Animal husbandry	Animal Health camps, Trainings, Demonstrations & Kisan Mela
NABARD	Establishment of Farmer Producer company, MEDP and CAT training programmes.

ICDS	Conduction of Awareness programme, Poshan Maah, Training and Demonstration.
ICICI foundation	Training to the farmers, Technical convergence and other field activities.
Centre for Indigenous Knowledge system. (CIKS)	
Srinivasan Services Trust (SST)	Training to the farmers, Technical convergence and other field activities.
Tamil Nadu Rural Transformation Project (TNRTP)	Assessment and Training to CRP's, Skill development programmes
Mivipro Pvt Ltd, Gobichettipalayam	Demonstration on wild boar, rat and other wild animals at the farmers field.
Garuda Aerospace Limited, Chennai	Demonstration on Spraying of pesticides using agridrones in the farmers field.
Marutham FPCL & Cheyyar FPCL	Skill trainings, quality seed production and supply
Hand in Hand NGO	Farmer training, field visit and promotion of organic farming.
National Agro Foundation	Capacity building traing to BODs, CEO and Shareholders

16. List of special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Food Processing Training Centre	March 2015	Ministry of Food Processing Industries, New Delhi.	15,00,000.00
Farmer Producer Company	December 2019	NABARD	1144000.00

17. Awards And Recognitions

- Shri. V.Suresh, Senior Scientist & Head received an appreciation award for the Mahila Kisan Diwas Programme organized by Sri Akilandeswari womens college, Vandavasi on 05.03.2022.
- Smt.T. Margaret, Subject Matter Specialist (Home Science) and Dr. S.Mayakrishnan, Subject Matter Specialist (Animal Science) received an appreciation certificates for the Mahila Kisan Diwas programme organized by Sri Akilandeswari College, Vandavasi on 05.03.2022.
- Smt.T. Margaret, Subject Matter Specialist (Home Science) received an appreciation certificates for the One day Seminar on Angel Investment/VC funding opportunity for early stage entrepreneur for National Innovation Council (NIC) organized by Sri Akilandeswari College, Vandavasi on 30.03.2022.
- Smt.T.Margaret, Subject Matter Specialist (Home Science) received an appreciation for the participation in the longest multinational confluence by Assist World Record

Research Foundation, Puducherry during 90th Birth anniversary celebration of Dr.A.P.J Abhul Kalaam.



18. Important Visitors to KVKs during 2021



Shri.Ravi Theja, Collector (Training) Thiruvannamalai released the booklet on groundnut cultivation during TNRTP training programme



Dr.Kasthuri, District Sidha Medical officer visited the KVK