PROFORMA FOR PREPARATION OF ANNUAL REPORT
(1st January 2022 to 31st December 2022)

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)	:	Thiruvarur
Address	:	ICAR-Krishi Vigyan Kendra Needamangalam Thiruvarur District PIN – 614 404
Phone	:	04367- 260666
Fax	:	04367- 260666
Email	:	kvkndm@tnau.ac.in

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 Agricultural University
Status of the Host Organization (As per the MoU)	:	State Government University-AU
Address	:	Tamil Nadu Agricultural University, Coimbatore PIN - 641 003
Phone	:	0422- 2431222
Fax	:	0422-2431821
Email	:	registrar@tnau.ac.in
Name of the Chairperson	:	Dr.V.Geethalakshmi
Mobile No	:	-
Email	:	tpo@tnau.ac.in

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

Name of the Programme Coordinator	:	Dr. V. Radhakrishnan
Residential Address	:	Staff Quarters, ICAR - Krishi Vigyan Kendra Needamangalam - 614 404, Thiruvarur District
Phone No	:	-
Mobile No	:	9655277010
Email	:	drvradhakrishnan@tnau.ac.in

1.4. Year of sanction of the KVK (as per Official Order):2004
1.5. Month and year of establishment: 01.08.2004
1.6.Total land with KVK (in ha) (Consolidated figure):18.66

S. No.	Item	Area (ha)
1	Under Buildings	1.22

2.	Under Demonstration Units	2
3.	Under Crops	13
4.	Orchard/Agro-forestry	1
5.	Others- Old threshing floor, ditch & fallow/not in use	1.44
	Total	**18.66**

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 in lakhs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	23.2.08	548.24	42.47	-	-	Completed
2.	Farmers Hostel	ICAR	23.2.08	353.00	27.00	-	-	Completed
3.	Staff Quarters	ICAR	23.2.08	459.00	32.00	-	-	Completed
4.	Demonstration Units							
	1. Vermi compost	ICAR-RF	31.03.07	30	-	-	-	Completed
	2.Mushroom	ICAR-RF	31.03.07	20	-	-	-	Completed
	3.Shade net	NADP	03.02.08	930	1.0	-	-	Completed
	4. Azolla production	ICAR-RF	05.07.09	120	-	-	-	Completed
	5. Slatted house goat rearing	ICAR-RF	30.11.09	24	0.15	-	-	Completed
	6. Back yard poultry	ATMA	30.11.09	36	0.50	-	-	Completed
	7. Farm pond –composite fish culture	ICAR	18.11.10	3500	2.00	-	-	-
	8.. Bio control production unit	ICAR	20.03.11	160	4.00	-	-	-
	9. Composted Coir pith	ICAR	2019					Completed
	10. Crop cafteria	ICAR	2020					Completed

	11. Integrated Farming System	ICAR	2020					Completed
	12.Roof top garden	ICAR	2013					Completed
	13. Fodder bank	ICAR	2018					Completed
	14.Nutrion garden	ICAR	2022		0.30			Completed
	15.Organic input production centre	ICAR	2022					Completed
	16.Egg Incubator centre	ICAR	2022	-	0.24			Completed
	17. Herbal garden	ICAR	2022		0.30			Completed
5	Fencing	ICAR	23.2.08	1200 RM	5.00	-	-	-
6	Rain Water harvesting system	Govt. of TN	31.03.07	1320	0.36	-	-	-
7	Threshing and drying yard	ICAR	20.3.11	394	2.00	-	-	-
8	Farm godown	Govt. of TN	-	3 Nos	-	-	-	-
9	Vehicle and Implement shed	ICAR	20.03.11	37	3.00	-	-	-
10	Farm road	ICAR	29.3.11	2200	2.00	-	-	-
11.	Irrigation system	ICAR	18.11.10	282 RM	1.00	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms covered as on 31.12.2022	Present status
Jeep Bolero-TN 66 V 0317	2017	8,34,445	106551	Good running condition
Tractor with Trailer - Mahindra & Mahindra D1-475-40 HP	2004	4,37,607	3254	Good running condition
Two wheeler - TVS STAR CITY	2006	39,400	50339	Good running condition
Two wheeler – Honda Activa	2009	50,000	71287	Good running condition
Power tiller – VST Sakti	2011	1,35,870	-	Good running condition

C) Equipment & AV aids

Name of the equipment	**Year of purchase**	**Cost (Rs.)**	**Present status**
Seagate Backup m plus slim	20.03.2019	4850	Good
Canon LBP 6230 DN printer	30.03.2019	9950	Good
Canon LBP 6230 DN printer	12.03.2021	9900	Good
HP Printer Laser Jet M 1005	03.07.2018	9900	Good
CANON LBP 2900 printer	09.10.2018	7839	Good
HP Printer Laser Jet M 1005	04.07.2018	9900	Good
Desktop Computer Acer- 2 Nos	31.03.2016	82,500	Good
Desktop Computer Acer-DAMU	1.12.2020	25600	Good
Brother Printer	01.12.2020	13650	Good
Desktop Computer-HCL	25.03.2011	27403	Good
Desktop Computer- HP	31.03.2015	39480	Good
Apple IMAC Workstation	02.11.2009	56000	Good
Laptop Dell inspiron	12.11..2021	57503	Good
Laptop Dell inspiron	24.03.2010	40040	Good
Laptop Sony	05.12.2011	34990	Good
Ricoh Photo copier	31.03.2016	76,800	Good
Online Shinewave UPS	22.03.2021	21500	Good
Epson Scanner	31.03.2016	5638	Good
Portable LCD projector	18.03.2021	10800	Good

Class room LCD projector	22.03.2021	38000	Good
LCD projector screen 5'x7'	26.03.2018	9750	Good
LCD projector screen 8'x3'	18.03.2021	10800	Good
LCD projector screen 5'x5'	22.03.2021	38000	Good
LCD projector with accessories	March , 2011	97,000	Good
Generator	March , 2011	1,35,980	Good
PA system	29.03.2021	12200	Good
Stand Mic, AMP DPA 770	30.03.2019	9950	Good
Speaker SR 500 DX	30.03.2019	4200	Good
Land leveler	Jan' 2011	10,000	Good
Furniture and furnishing	March , 2011	2,00,000	Good
Digital Visible Spectrophotometer	2011	37600	Good
Digital pH meter	2011	5740	Good
All Glass Single Distillation unit	2011	35000	Good
Khan Shaker	2011	20000	Good
Hot air oven	2011	17000	Good
Hot plate	2011	7650	Good
Willey mill	2011	31500	Good
Water Bath	2011	6970	Good
UP based Flame Photometer	2011	43500	Good
Digital conductivity meter	2011	10890	Good
Electronic Top loading balance	2011	6500	Good
Electronic Top loading balance	2011	19800	Good
Instrument table	2011	78000	Good
Wash basin, sink and exhauster fan	2011	-	Good
Vacuum pump	2011	14025	Good
Exhaust fan	2011	12240	Good
Shaker	2011	20000	Good
Water Bath	2011	6970	Good
Induction hot plate	2011	7650	Good
HP-Lazerjet printer P 1566	2011	8750	Good
Sand Path	2011	1350	Good

LG Refreigirator	2011	9890	Good
Sink Unit	2011	36770	Good
LPG Set up	2011	8075	Good
Wall Storage Cuboard	2011	15936	Good
Wall side storage Cabinet	2011	15936	Good
Storage Cabinet	2011	44837	Good
Laboratory revolving stool	2011	11730	Good
Steel rack	2011	13005	Good
Stotted Angle iron rack	2011	8670	Good
Steel Almirah	2011	44488	Good
Work Table	2011	15725	Good
Executive chair netted	2011	4930	Good
Laboratory revolving Chair	2011	5440	Good
Portable soil and water and kit	2011	27200	Good
GPS	2011	17000	Good
Vaccuam pump	2011	7200	Good
Bucket flask lit with Buchner finnel	2011	637	Good

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

S.No.	Date	No of Participants	Salient Recommendations
1	16.03.2023	33	Suitable small millet is to be identified and popularized for cultivation in Thiruvarur district
2			Training programmes on IPM for the control of sucking pests in cotton have to be conducted for the farmers / FPOs and feedback is to be obtained
3			More number of trainings on Organic vegetable production and Soil health management may be conducted for the farmers
4			Demonstrations and Trainings may be organized by KVK for suitable Power weeder for rice crop with enhanced efficiency in Delta Region
5			Rice varieties CO57, ADT 57, ADT 58 may be popularized among farmers
6			FLD may be conducted for popularizing thesunnhemp variety ADT 1
7			VBN 6 Greengram variety may be popularized through FLDs.
8			Training and demonstration of Value added products in Pulses, Casava and Banana may be organized
9			Awareness on Sericulture and Digital marketing may be created among the farmers/ FPOs

10			Trainings and demonstration of Silage making, Production of animal feed, Azola production have to be conducted for the farmers / FPOs and feedback is to be obtained
11			More number of Training and demonstration on Cultivation of small millets and preparation of small millets recipes / value addition may be organized by the KVK
12			Castor crop may be introduced to Thiruvarur District through FLD
13			Maize may be popularized as alternate crop for rice among farmers so as to enhance the Maize crop area
14			Banana Sakthi may be introduced among farmers through FLD and trainings
15			Regular programmeon various technologies may be broadcasted regularly in Karaikal FM
16			Exposure visit is to be organized for farmers to visit VC&RI, Orathanadu so as to witness the various Animal and feed units
17			Collaboration training may be organized along with NIFTEM, Thanjavur and NRCB, Trichy
18			Awareness and training programmes may be organized to promote green manures like Kozhinji (Tephrosia *purpurea*) and Awri (*Indigofera tinctoria*) which are not grassed by the cattle
19			NRCB App may be popularized among Thiruvarur District farmers
20			More number of trainings and demonstration may be organized by the KVK on traditional paddy and Mushroom cultivation and Honey bee rearing

**** Attach a copy of SAC proceedings along with list of participants***

Attached in Annexture I

2. DETAILS OF DISTRICT (2022)

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
Thiruvarur	-	8 Taluks and 10 Blocks

2.1. Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1	Rice based cropping system

2.2. Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No	**Agro-climatic Zone**	**Characteristics**
1	Cauvery Delta Zone	Alluvial terrain with gentle slope
	Agro ecological situation	**Characteristics**
2	Wet land eco system	Low land delta plain

2.3. Soil types

S. No	**Soil type**	**Characteristics**	**Area in ha**
1	Clay to clay loam- Old Delta	Low land	1,27,506
2	Sandy to sandy clay loam- New Delta	Light textured soil	27,048

2.4. Area, Production and Productivity of major crops cultivated in the district (or the jurisdiction as the case may be) for 2022

Kharif

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Paddy	54944	3649655.2	66.425
2.	BlackGram	1037	2177.7	2.1
3.	Gingelly	68	136	2.0
4.	Groundnut	77	3095.4	40.2

Rabi

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Paddy	147255	8178542.7	55.54
2.	BlackGram	20700	45540	2.2
3.	Green gram	39515	122496.5	3.1
4.	Redgram	5	10	2.0

Summer

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)

1.	Paddy	3531	238413.12	67.52
2.	Gingelly	1795	3949	2.2
3.	Groundnut	1965	80761.5	41.1
4.	Cotton	16428	-	-
5.	Kuthiraivali	13	14.3	1.1
6.	Maize	21	1092	52
7.	Sorghum	4	40.8	10.2
8.	Soyabean	4	50	12.5

2.5. Weather data

Rainfall Details - 2022				
S.No	**Season**	**Month**	**Normal Rainfall (mm)**	**Rainfall Receipt(mm)**
1	Winter	January	48.26	110.1
2		February	42.66	58.42
		Total	**90.92**	**168.52**
3	Summer	March	16.05	23.47
4		April	12.76	92.44
5		May	35.35	29.38
		Total	**64.16**	**145.29**
6	South West Monsoon	June	26.31	17.64
7		July	72.74	136.47
8		Augusst	93.12	212.022
9		September	151.48	141.87
		Total	**343.65**	**508.002**
10	North East Monsoon	October	205.65	105.6
		November	350.54	172.11
		December	175.28	177.79
		Total	**731.47**	**455.5**
Total Rainfall			**1230.2**	**1277.312**

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

Category	Population	Production	Productivity
Cattle			
Crossbred	163187		8.5 litres/Animal
Indigenous	47225		7 Litres / Animal
Buffalo	1347		4.5 Litres/ Animal
Sheep			
Crossbred	225		12 kg
Indigenous	497		8.5 kg
Goats	148435		16 kg / Animal
Pigs			
Crossbred	47		-
Indigenous	635		-
Rabbits	343		-
Poultry			
Hens			1.25 kg / bird
Desi			
Improved			
Ducks			
Turkey and others			

Category	Area	Production	Productivity
Fish			
Marine	47 km	647t	-
Inland	370 ha	9100 t	-

2.7. Details of Adopted Villages (2022)

S.No.	Taluk/ Mandal	Name of the block	Name of the village	Year of adoption	Major crops & enterprises	Major problem identified	Identified Thrust Areas
KVK adopted villages							
1	Needamangalam	Needamangalam	Pullavarayankudikkadu	2022	Rice	Most of the farmers are relay on insecticides and fungicides to control pest and diseases. Indiscriminate use of pesticides will leads to pollution, residue and resurgence problems. To overcome the above issues, the present OFT is proposed.	OFT-Assessing the Non-Chemical Methods against Rice Ear head bug *Leptocorisa acuta*
2	Needamangalam	Needamangalam	Pullavarayankudikkadu	2022	Black gram	Farmers cultivate the age old variety ADT-5 as rice fallow crop	FLD-Demonstration of rice fallow blackgram variety (ADT-7) in Cauvery Delta Zone Method demonstrations/ Training/ Field day
3	Needamangalam	Needamangalam	Pullavarayankudikkadu	2022	Groundnut	Mostly the farmers are dependent on the other state. Here farmers	OFT- Assessment of suitable groundnut variety

						cultivate groundnut in rabi and summer seasons	for Cauvery Delta Zone
4	Needamangalam	Needamangalam	Pullavarayankudikkadu		Rice	Pest and diseases are major threat to the farming community for the rice crop. To over come the issues, the farmers are depending only pesticides. It leads to increase the residues, resurgence and other environmental problem. Hence, to address the above said issues, ecological engineering approaches are the best method and it is proposed	FLD- Demonstration of Ecological Engineering Approaches for Pest and Disease Management in Rice Method demonstrations/ Training
5	Needamangalam	Needamangalam	Pullavarayankudikkadu	2022	Coconut	Coconut rhinoceros beetle was infested in the plantation crops and it leads to yield loss. To avoid the red pal weevil menace, it is planned to demonstrate the management	FLD- Demonstration of Coconut Red Palm Weevil management Method demonstrations/ Training

						strategies of coconut red palm weevil.	
6	Needamangalam	Needamangalam	Pullavarayankudikkadu	2022	Recycling of farm wastes	The soil fertility depletion due reduced application of organic manures for crop production. Environmental pollution due to improper disposal of the crop residues. Nutrient loss during the composting period.	FLD-Demonstration of Rapid Vermicompost production technology Method demonstrations/ Training
7	Needamangalam	Needamangalam	Pullavarayankudikkadu	2022	Recycling of farm wastes	The soil fertility depletion due reduced application of organic manures for crop production. Environmental pollution due to improper disposal of the crop residues	FLD-Demonstration of Enriched Biocompost preparation with TNAU Biomineralizer Method demonstrations/ Training
			Pullavarayankudikkadu				
DFI villages							
1	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Rice	Most of the farmers are relay on insecticides and fungicides to control pest and diseases. Indiscriminate use of pesticides will leads	OFT-Assessing the Non-Chemical Methods against Rice Ear head bug *Leptocorisa acuta*

						to pollution, residue and resurgence problems. To overcome the above issues, the present OFT is proposed.	
2	Needamangalam	Needamangalam	Vaduvur Pudukottai	2018	Groundnut	Mostly the farmers are dependent on the other state. Here farmers cultivate groundnut in rabi and summer seasons	OFT- Assessment of suitable groundnut variety for Cauvery Delta Zone
3	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Cotton	Thiruvarur district farmers usually growing the cotton crop after rice fallow. One of the major belt in Valangaimaan and Koradacherry block farmers facing lot of wilt problem during the last year. To overcome the wilt disease, the current OFT was proposed.	OFT-Management of Fusarium wilt disease in Cotton
4	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Zn Fortification in Rice	White milled rice grains lose essential nutrients through polishing. Therefore, biofortification of essential nutrients in	OFT-Assessment of Zinc Fortification in rice variety ADT 53

						rice grains is a necessity	
5	Needamangalam	Needamangalam	Vaduvur Sathanur and Vaduvur Pudukkottai	2018	Zn Fortification in Rice	Low zinc uptake and poor zinc use efficiency by the paddy. Therefore, biofortification of essential nutrients in rice grains is a necessity. The assessment of efficacy of zinc solubilizing bacteria is also essential for zinc fortification in rice	OFT-Assessment of Zinc Solubilizing Bacteria for enhancing Zn in rice variety CO 52
6	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Bhendi	Farmers are un aware about the identification of suitable bhendi hybrids in Thiruvarur district	OFT-Assessment of bhendi hybrids in Thiruvarue district
7	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Greens	Farmers are unaware about the identification of suitable sirukeerai varieties in Thiruvarur district	OFT-Assessment of Sirukeerai varieties in organic farming in Thiruvarur district
8	Needamangalam	Needamangalam	Vaduvur Sathanur Vaduvur Puthukottai	2018	Value addition	To enhance the micro enterprise, SHG women required	OFT- Assessment of groundnut

						for value addition in Groundnut. Hence, suitable Groundnut variety for making confectionery is essential	varieties suitable for confectionery
9	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Bottle gourd	Farmers are unaware about the identification of suitable bottle gourd hybrids in Thiruvarur district	OFT-Assessment of Bottle gourd hybrids for yield and market preference in Thiruvarur district
10	Needamangalam	Needamangalam	Vaduvur Puthukottai	2018	Rice	Pest and diseases are major threat to the farming community for the rice crop. To over come the issues, the farmers are depending only pesticides. It leads to increase the residues, resurgence and other environmental problem. Hence, to address the above said issues, ecological engineering approaches are the best method and it is proposed	FLD-Demonstration of Ecological Engineering Approaches for Pest and Disease Management in Rice Method demonstrations/ Training

11	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Rice for Salt Affected Soils	Low availability and Nutrient deficiencies is the major problems in salt affected soils. And hence, the salt affected soils will yield very poor productivity	FLD- Demonstration of CSR-BIO for enhancing productivity of Rice var. TRY 5 in Salt-affected Soils of Thiruvarur district Method demonstrations/ Training/ Field day
12	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Coriander	Farmers are unaware about the identification of suitable coriander varieties in Thiruvarur district	FLD- Demonstration of Co 5 Coriander variety in Thiruvarur District
13	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Coconut	Coconut rhinoceros beetle was infested in the plantation crops and it leads to yield loss. To avoid the red pal weevil menace, it is planned to demonstrate the management strategies of coconut red palm weevil.	FLD- Demonstration of Coconut Red Palm Weevil management Method demonstrations/ Training
14	Needamangalam	Needamangalam	Vaduvur Puthukottai	2018	Tapioca	Recently, the mealy bug was introduced and it became	FLD- Demonstration of IPM practices

						menace for the tapioca growers	against Tapioca mealybug Method demonstrations/ Training
15	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Tapioca	The tubers have been eaten away by the wild boar. To avoid the wild boar menace, the repellent is planned to demonstrate the field condition	FLD- Demonstration of wild Boar repellent in Tapioca Method demonstrations/ Training
16	Needamangalam	Needamangalam	VaduvurPuthukottai VaduvurSathanur	2018	Recycling of farm wastes	The soil fertility depletion due reduced application of organic manures for crop production. Environmental pollution due to improper disposal of the crop residues. Nutrient loss during the composting period.	FLD- Demonstration of Rapid Vermicompost production technology Method demonstrations/ Training
17	Needamangalam	Needamangalam	VaduvurPuthukottai VaduvurSathanur	2018	Recycling of farm wastes	The soil fertility depletion due reduced application of organic manures for crop production. Environmental pollution due to	FLD- Demonstration of Enriched Biocompost preparation with TNAU Biomineralizer

						improper disposal of the crop residues	Method demonstrations/ Training
18	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Recycling of farm wastes	The soil fertility depletion due reduced application of organic manures for crop production. Further, soil fertility depletion due reduced application of organic manures for crop production. Environmental pollution due to improper disposal of the crop residues	FLD- Demonstration of composting of rice straw wastes with NCOF Waste Decomposer Method demonstrations/ Training
19	Needamangalam	Needamangalam	Vaduvur sathanur	2018	Blackgram	Farmers cultivate the age old variety ADT-5 as rice fallow crop	FLD- Demonstration of rice fallow blackgram variety (ADT-7) in Cauvery Delta Zone Method demonstrations/ Training/ Field day
20	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Greengram	No new varieties in green gram prone to various biotic and abiotic stresses	FLD- Demonstration of green gram variety (VBN-5) in Cauvery Delta Zone

							Method demonstrations/ Training/ Field day
21	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Blackgram	Farmers cultivate the age old variety ADT-5 as rice fallow crop	FLD- Demonstration of rice fallow blackgram variety (ADT-7) in Cauvery Delta Zone Method demonstrations/ Training/ Field day
22	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Coconut	No proper nutrient application for coconut	FLD- Demonstration on INM practices for higher yield in Coconut. Method demonstrations/ Training/ Field day
23	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Herbal plants	Lack of knowledge in medical value of plants, Low per capita consumption and demand for herbal greens, Poor health status of family	FLD- Demonstration of Immune Boosting Herbal Plants in Households Method demonstrations/ Training

24	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Milk	Creating awareness and Transfer of Technology on milk value added products	FLD- Demonstration On Milk value added products and Enhance the Income Level Of Dairy Women Farmers as EDP mode Method demonstrations/ Training
25	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Pulses	Storage Problem of pulses	FLD- Demonstration of super grain bag to store pulses Method demonstrations/ Training
26	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Coconut	Creating awareness and Transfer of Technology on coconut value added products	FLD- Demonstration of coconut based value added products Method demonstrations/ Training/ Field day
27	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Dairy cattle	Delayed postpartum period and long inter-calving period	Popularization of ProSync – NC (Nano cream) for

						in dairy cows and buffaloes	synchronization in Dairy cattle Method demonstrations/ Training/
28	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Dairy cattle/sheep/goat	Delayed wound healing leads to maggot infestation and production loss	Demonstration of wound healing in farm animals Method demonstrations/ Training/
29	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Dairy cattle	Delayed postpartum period and long inter-calving period in dairy cows and buffaloes	*Demonstration of Sex sorted semen in dairy cows* Method demonstrations /Training/
30	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Goat	Poor Growth rate, kidding interval, twinning percentage	Role of TANUVAS AFLD salt lick on the performance of calves, sheep & goat Method demonstrations /Training/
31	Needamangalam	Needamangalam	Vaduvur Puthukottai Vaduvur Sathanur	2018	Dairy cattle	Delayed postpartum period and long inter-calving period in dairy cows and buffaloes	Teat protect for the prevention of sub clinical mastitis Thiruvarur district calves, sheep & goat

							Method demonstrations /Training

2.8. Priority/thrust areas

Crop/Enterprise	Thrust area
Rice, Greens, Bottle gourd, Vermi-compost, Compost, rice straw,	Resource management
Black gram, Green gram, Groundnut , Bhendi, Mushroom, Brinjal, Guava, Banana, Coriander	Varietal evaluation
Rice, Cotton , Tapioca, Coconut	IPM, IPDM, Integrated Crop Management, INM
KVK on the Move; Contact Farmers of KVK	Information technology/ICT Tools
Small and large ruminants,	Animal Husbandry/Dairy animal/small ruminant backyard poultry
Milk, Groundnut, Coconut, Nano cream	Value addition
Pulses	Processing
Medicinal plants	Immune Boosting

3. Salient Achievements

Achievements of Mandated activities (1st January 2022 to 31st December 2022)

S.No	Activity	Target	Achievement
1.	Technologies Assessed and refined(No.)	13	13
2.	On-farm trials conducted (No.)	75	75
3.	Frontline demonstrations conducted (No.)	28	28
4.	Farmers trained (in Lakh)	0.01650	0.07635
5.	Extension Personnel trained (No.)	280	310
6.	Participants in extension activities (in Lakh)	0.05960	0.09868
7.	Production and distribution of Seed (in Quintal)	300	226.8
8.	Planting material produced and distributed (in Lakh)	1.50	2.30
9.	Live-stock strains and finger lings produced and distributed (in Lakh)	0.00230	0.01447
10.	Soil samples tested by Mini Soil Testing Kit (No)	100	150
11.	Soil samples tested by Traditional Laboratory (No)	50	57
12.	Water, plant,manureand other samples tested (No.)	100	120
13.	Mobile agro-advisory provided to farmers (No.)	200000	1420960
14.	No.of Soil Health Cards issued by Mini Soil Testing Kits (No.)	100	150
15.	No.of Soil Health Cards issued by Traditional Laboratory (No.)	50	57

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

Totally 13 OFT S and 28 FLDS were conducted in 335 farmers field during 2022-23. Through these OFTS and FLDS new varieties and new technologies were demonstrated in the farmer's field. Paddy variety CO 52, TRY 5 ADT 53, Blackgram ADT 7, Grrengram VBN 5, Grafted brinjal, Arka kiran Guava variety, Kaveri poupulu Banana variety, Bootle guard hybrid , PLR1 Sirukeerai , Coriandar variety CO 5, COH-1 Ridge Gourd , MDU 1 Cluster Bean Variety, Poovan banana variety .Kaveri Saba Banana Variety were introduced. Dual purpose crossbred chicken varieties TANUVAS Aseel, TANUVAS mineral mixture, TANUVAS AFLD salt lick, Prosync-NC for dairy cattle were also demonstrated. New technologies like, Demonstration of value added products with milk and coconut were also demonstrated.Demonstration of Organic farming of traditional rice varieties, TNAU bio mineralizer and NCOF waste decomposer, Rapid vermicompost production were also introduced to the District farmers in addition to IPM technologies for Tapioca mealybug and Rice

- 207 soil health card was issued to 207 farmers and 120 water sample anaysed for 120 farmers.
- As mandate of KVK training programmes are being conducted regularly. Totally 7635 farmers were benefitted through 175 on campus, off campus, vocational and sponsored training programmes.
- 617 Extension activities viz., method demonstrations Exhibition, Radio talks, diagnostic visits, Farmers visit to KVK and Field day, T.V. programmes were conducted regularly. Totally 9868 farmers were benefitted from ten blocks of Thiruvarur District

- Totally 10 successful farmers were formulated and 2 farmers documented
- Technologies were disseminated through various print media *viz.,* full research article (12), Book (2), Popular article (13), Pamphlets (16), Seminars (5) and Conference papers (4) and dailies (317) which are predominately reaches the farmers.
- Totally 226.8 quintal for paddy seeds *viz.*, ADT51, TPS 5, TRY 5, ADT 57, ADT 55 were produced and distributed to 74 number of farmers for Rs 681588
- Planting materials viz. Napier grass CO 5 (230683 Nos) were produced and distributed to 341 farmers with an value of Rs 245245
- Bio products like Azolla (141 Kg), Vermicompost (7140 Kg), Basillus (1019 kg) and T.viridie (320 Kg) were produced with an value of Rs 318733 and distributed to 1300 farmers
- 31 Numbers of mobile agro- advisory services were provided through mkisan portal
- Totally 7 numbers of awards namely, Best Extension Worker Award,Best Poster Presentation Award,Best Research Article Award,Achiever Award were received by KVK staffs
- Eleven numbers of externally funded projects were operated during reporting period

- Eight numbers of videos on various agriculture allied technologies including Animal science were documented and uploaded in youtube for the benefits of farming community

4. TECHNICAL ACHIEVEMENTS

Details of target and achievements of mandatory activities by KVK during 2022

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
13	13	26	26	18	18	75	75

FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers / Beneficiaries / Replications	
Targets	Achievement	Targets	Achievement	Targets	Achievement
28	28	28.8	28.8	260	260

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)

Number of Courses			Number of Participants	
Clientele	Targets	Achievement	Targets	Achievement
Farmers and Farm Women	**50**	**85**	**1650**	3867
Rural youth	**19**	**22**	**520**	776
Extn.Functionaries	**7**	**8**	**280**	310

Extension Activities

Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement
577	617	5960	9828

Seed Production (q)

Target	Achievement	Distributed to no. of farmers
300	226.8	74

Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
150000	230683	341

Technology Assessments(OFTs) in Detail

2021-22

1. **Assessment of small onion (*Allium cepa* var.*aggregatum*)varieties for Thiruvarur district**

<table>
<tr><td>1.</td><td>Thematic area</td><td>:</td><td>Varietal Assessment</td></tr>
<tr><td>2.</td><td>Title</td><td>:</td><td>Assessment of small onion (Allium cepa var.aggregatum)varieties for Thiruvarur district</td></tr>
<tr><td>3.</td><td>Scientists involved</td><td>:</td><td>Dr. S. Arulselvi, Assoc. Prof. (PBG)</td></tr>
<tr><td>4.</td><td>Details of farming situation</td><td>:</td><td>Irrigated</td></tr>
<tr><td>5.</td><td>Problem definition / description</td><td>:</td><td>Vegetables are cultivated in about 1450 ha in the district in which 240 ha is onion. Major ruling variety is seed propagated CO-5 was in low yield new variety of CO-6 and Arka Ujjwal is seed propagated varieties with high yield.</td></tr>
<tr><td>6.</td><td>Technology Assessed</td><td>:</td><td>
<table>
<tr><td>TO-1</td><td>CO-6</td></tr>
<tr><td>Source and year</td><td>TNAU, 2020</td></tr>
<tr><td>Description (short)</td><td>Attractive pink coloured bolder bulbs of 90-100 g, bulb yield 19.10 t/ha, seed yield 250-300 kg/ha, yield increase over check CO(On)5 20.94 %, duration-May-September-40+90 days, October-April (seed production)-140 days, saving of 1000 kg bulbs/ha.</td></tr>
<tr><td>Potential yield/income</td><td>19.10 t/ha</td></tr>
<tr><td>Source of Inputs</td><td>Dept. Vegetable crops, HC&RI, TNAU, Coimbatore</td></tr>
<tr><td>TO-2</td><td>Arka Ujjwal</td></tr>
<tr><td>Source and year</td><td>IIHR,2017</td></tr>
<tr><td>Description (short)</td><td>True seed multiplier onion for export market developed through pedigreebreeding with TSS 180^{0}brix. Bulb yield, 30 t/ha, bright dark red bulb colour, compound bulb with flat shape, bulb size 4-5 cm, number of bulb lets/bulb 3-5, bulb weight 40-45 g, TSS-16-18, drymatter content 14-16 %, and bulb yield 20-25 t/ha in 85 days.</td></tr>
<tr><td>Potential yield/income</td><td>20-25 t/ha</td></tr>
<tr><td>Source of Inputs</td><td>Division of. Vegetable crops, IIHR, Bangaluru</td></tr>
<tr><td>Farmers Practice</td><td>CO-5</td></tr>
<tr><td>Farmers yield</td><td>21q/ha</td></tr>
</table>
</td></tr>
</table>

7.	Critical inputs given	:	Seeds
8.	Results	:	

Performance of the technology

Technology Option	No. of trials	Yield (q/ha/)	Net Returns (Rs./ha)	B:C ratio
Technology 1 : CO-6	5	1894	40,168	2.97
Technology 2: Arka Ujjwal		1575	24,230	2.22
Farmers Practice: CO-5		1680	32,200	2.76

The On farm trials were conducted in five farmers field during *Kharif* season. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The yield and other parameters recorded in OFT trials are presented below.

Description of the results- *Data on Other performance indicators*

Sl.No	Parameters	TO-1 (CO-6)	TO-2 Arka Ujjwal	FP-CO-5
1.	Plant height (cm)	19.46	18.92	19.21
2.	No. of tillers/plant	4.33	3.58	3.97
3.	Bulb weight/plant(g)	63.47	53.16	52.91
4.	Yield/ ha (q)	1894	1575	1680
5.	Gross cost (Rs/ha)	20389	19860	18295
6.	Net returns (Rs.)	40,168	24,230	32,200
7	B:C Ratio	1:2.97	1:2.22	1:2.76

The on farm trials were conducted in five different onion growing blocks of Vaduvur and Vaduvur sathanur villages of Needamangalam block and Ovelkudi and Melanagai villages of Mannargudi block and Reganathapuram village of Valangaiman block during Kharif season of 2021-22. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The yield and other parameters recorded in OFT trials are presented below.

Results from OFT clearly indicated that the Small onion variety CO-6 had positively influenced plant growth attributes like plant height (at harvesting stage)(19.46cm), No.of tillers/plant (4.33), Bulb weight /plant(63.47g), and yield attributing characters of yield per hectare (1894 q) followed by farmers practice of CO-5 (1680) and Arka Ujjwal (1575 q)respectively.

Economics of the study revealed that technology option one of CO-6 was getting higher net returns (Rs. 40,168/-) and benefit cost ratio (1:2.97) followed by farmers practice of CO-5 (Rs. 32,200/-ha) and technology option two of (Rs. 24,230/-) respectively.

Thus, the results revealed that the onion variety of CO-6 was found to be superior in growth and yield attributing characters and of found suitable in Thiruvarur district.

9.	Constraints	:	• Lack of awareness on the choice of suitable onion variety for various seasons.
10.	Feedback of the farmers involved	:	• CO 6 onion was found to be profitable and suited for cultivation in Thiruvarur district.

11.	Feed back to the scientist who developed the technology	:	The scientist may ensure the seed multiplication of newly released varieties to avoid the shortage of seeds.

2. Assessment of Tapioca (*Manihot esculenta* .Crantz.) varieties for Thiruvarur district

1.	Thematic area	:	Varietal Assessment
2.	Title	:	**Assessment of Tapioca (*Manihot esculenta* .Crantz.) varieties for Thiruvarur district**
3.	Scientists involved	:	Dr. S. Arulselvi, Assoc. Prof. (PBG)
4.	Details of farming situation	:	Irrigated
5.	Problem definition / description	:	Farmers are unaware about the recently released high yielding ,table purpose varieties of tapioca with good cooking qualities.
6.	Technology Assessed	:	

TO-1	YTP-2
Source and year	TNAU, 2020
Description (short)	This variety was released in the year 2020. It has the yield potential of 46.2 t/ha with the crop duration of 270-300 days, starch content 29.62 and tolerant to CMV and grade is 1, Erect, medium growing and top branching type tolerant to drought and salt.
Potential yield/income	46.2 t/ ha
Source of Inputs	TCRS- Yethapur - TNAU ,Salem
TO-2	Sree Suvarna
Source and year	CTCRI, 2018
Description (short)	This variety is clonal selection from CIAT hybrid, CR 43-2 (SM 1741XC 33) released in the year 2018. It has high yield potential with resistance to CMV caused by SLCMV & ICMV, yield 38 t/ha, duration 210-240 days, starch content 25-26 %
Potential yield/income	38t/ha
Source of Inputs	Division of Crop Improvement, CTCRI , 2018
Farmers Practice	H-226
Farmers yield	21t/ha

7.	Critical inputs given	:	Setts
8.	Results	:	

Technology Option	No. of trials	Yield (q/ha/)	Net Returns (Rs./ha)	B:C ratio
Technology 1 : YTP-2	5	5004	82500	1:5.69
Technology 2: Sree Suvarna		4376	69940	1:4.97
Farmers Practice: H-226		3975	53970	1:4.07

The On farm trials were conducted in five farmers field during *Rabi* season. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The yield and other parameters recorded in OFT trials are presented below.

Description of the results- *Data on Other performance indicators*

Sl.No	Parameters	TO-1 -YTP-2	TO-2 Sree Suvarna	FP-H-226
1.	Plant height (cm)	231.3	200.7	180.9
2.	No. of tubers/plant	15.80	11.60	9.50
3.	Yield/ plant/ (kg)	9.30	7.60	5.80
4.	Yield (q/ha)	5004	4376	3975
5.	Gross cost (Rs/ha)	17590	17617	17579
6.	Net returns (Rs.)	82500	69940	53970
7	B:C Ratio	1:5.69	1:4.97	1:4.07

The On farm trials were conducted in five different villages of three blocks of farmer's field at Magadevappattinam, Melanagai, Ovelkudi and Karuvacheri villages of Mannargudi block and Keezhavidyal village of Valangaiman block which is suitable for tapioca cultivation during Rabi season of 2021-22. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The yield and other parameters recorded in OFT trials are presented below.

Results from OFT clearly indicated that the tapioca variety YTP-2 had positively influenced plant growth attributes of Plant height (231.3 cm), No.of tubers/plant (15.8) and Yield/Plant (9.30kg)

Economics of the study revealed that technology option one of YTP-2 was getting higher net returns (Rs.82500/-ha) and benefit cost ratio (1:5.69) followed by technology option two of Sree Suvarna (Rs. 69940/-ha) with benefit cost ratio of (1:4.97) and Farmers practices (Rs.53970) with (1:4.07) respectively.

Thus, the results revealed that the tapioca variety of YTP-2 was found to be superior in growth and yield attributing characters and of found suitable in Thiruvarur district.

9.	Constraints	:	• Lack of awareness on the choice of suitable tapioca variety for marketing
10.	Feedback of the farmers involved	:	• Tapioca variety YTP 2 was found to be superior to other two varieties and be suitable for cultivation in Thiruvarur district
11.	Feed back to the scientist who developed the technology	:	The scientist may ensure the setts multiplication of newly released varieties to avoid the shortage of seeds.

3. Assessment of tuberose (*Polianthes tuberosa L.*)variety for Thiruvarur district

<table>
<tr><td>1.</td><td>Thematic area</td><td>:</td><td>Varietal Assessment</td></tr>
<tr><td>2.</td><td>Title</td><td>:</td><td>Assessment of tuberose (Polianthes tuberosa L.)variety for Thiruvarur district</td></tr>
<tr><td>3.</td><td>Scientists involved</td><td>:</td><td>Dr. S. Arulselvi, Assoc. Prof. (PBG)</td></tr>
<tr><td>4.</td><td>Details of farming situation</td><td>:</td><td>Irrigated</td></tr>
<tr><td>5.</td><td>Problem definition / description</td><td>:</td><td>Farmers are unaware about the regular income earning flower crops with low investment.</td></tr>
<tr><td>6.</td><td>Technology Assessed</td><td>:</td><td>
<table>
<tr><td>TO-1</td><td>Arka Prajwal</td></tr>
<tr><td>Source and year</td><td>IIHR, 2016</td></tr>
<tr><td>Description (short)</td><td>This hybrid bears single type flowers on tall, sturdy spikes.The flower buds are slightly pinkish in colour while the flowers are white. It yields 20-22t/ha/year.</td></tr>
<tr><td>Potential yield/income</td><td>20-22t/ha/year</td></tr>
<tr><td>Source of Inputs</td><td>Division of Floriculture, IIHR, Bangaluru</td></tr>
<tr><td>TO-2</td><td>Arka Niranthara</td></tr>
<tr><td>Source and year</td><td>IIHR, 2018</td></tr>
<tr><td>Description (short)</td><td>A hybrid with single type flowers and gives high spike yield. It exhibits early flowering and prolonged blooming period from 6-8 months. It possesses higher concrete content of 0.132 % It is tolerant to nematodes (Meloidogyne incognita). The yield of loose flowers varies from 20-25t/ha/year.</td></tr>
<tr><td>Potential yield/income</td><td>20-25t/ha/year</td></tr>
<tr><td>Source of Inputs</td><td>Division of Floriculture, IIHR, Bangaluru</td></tr>
<tr><td>Farmers Practice</td><td>Local variety</td></tr>
<tr><td>Farmers yield</td><td>10-12 t/ha/year</td></tr>
</table>
</td></tr>
<tr><td>7.</td><td>Critical inputs given</td><td>:</td><td>Seed bulbs</td></tr>
<tr><td>8.</td><td>Results</td><td>:</td><td></td></tr>
</table>

Performance of the technology

Technology Option	*No. of trials*	*Yield (q/ha/Ist year)*	*Net Returns (Rs./ha)*	*B:C*
Technology 1 : Arka Prajwal	*5*	920.0	2,57,704/-	*5.69*
Technology 2: Arka Nirantara		786.0	2,12,533/-	*4.90*
Farmers Practice: Hyderabad single		679.0	1,93,868/-	*3.72*

The On farm trials were conducted in five farmers field during *Kharif* season 2022-23. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The yield and other parameters recorded in OFT trials are presented below.

Description of the results- *Data on Other performance indicators*

Sl.No	Parameters	TO-1 Arka Prajwal	TO-2 Arka Nirantara	FP-Hyderabad single
1.	No. of spikes in a plant/year (cm)	2.72	2.10	1.98
2.	No. of flowers/spike	44.80	43.00	41.95
3.	Weight of flowers/spike(g)	54.26	53.16	52.91
4.	Flower Yield/ plant/year (kg)	1.62	1.59	1.35
5.	Flower Yield/ ha/year (q)	920.0	786.0	679.0
6.	No.of harvest/plant/year	38.0	32.0	30.0
7.	Gross cost (Rs/ha)	54947	54595	71275
8.	Net returns (Rs.)	2,57,704/-	2,12,533/-	1,93,868/-
9	B:C Ratio	1:5.69	1:4.90	1:3.72

The on farm trials were conducted in five different villages of three blocks of farmers field at Vadaseri, Thirumakkottai and Magadhaevappattinam villages of Mannargudi block, Kottur thottam village of Kottur block, and Keezhavidyal village of Valangaiman block which is suitable for tuberose cultivation during Kharif season of 2021-22. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The yield and other parameters recorded in OFT trials are presented below.

Results from OFT clearly indicated that the tuberose variety Arka Prajwal had positively influenced plant growth attributes of No. of spikes in a plant/year(2.72), No.of flowers /spike (44.80), Weight of flowers/spike (54.26g), Flower Yield/ plant/year (1.62 kg), Flower Yield/ha/year (920q)followed by Arka Nirantara(786q) and Hyderabad single(679q) and No.of harvest/plant/year(38)followed by Arka Nirantara (32)and Hyderabad single (30).

Economics of the study revealed that technology option one of Arka Prajwal was getting higher net returns (Rs. 2,57,704/-ha) and benefit cost ratio (1:5.69) followed by technology option two of Arka Nirantara (Rs. 2,12,533/-ha) and Farmers practices of Hyderabad single (Rs. 1,93,868/-) respectively.

Thus, the results revealed that the tuberose variety of Arka Prajwal was found to be superior in growth and yield attributing characters and of found suitable in Thiruvarur district.

9.	Constraints	:	• Lack of awareness on the choice of suitable tuberose variety for marketing

10.	Feedback of the farmers involved	:	• The tuberose variety of Arka Prajwal was found to be superior in growth and yield attributing characters and found to be suitable for cultivation in Thiruvarur district.
11.	Feed back to the scientist who developed the technology	:	The scientist may ensure the bulb multiplication of newly released varieties to avoid the shortage of bulbs.

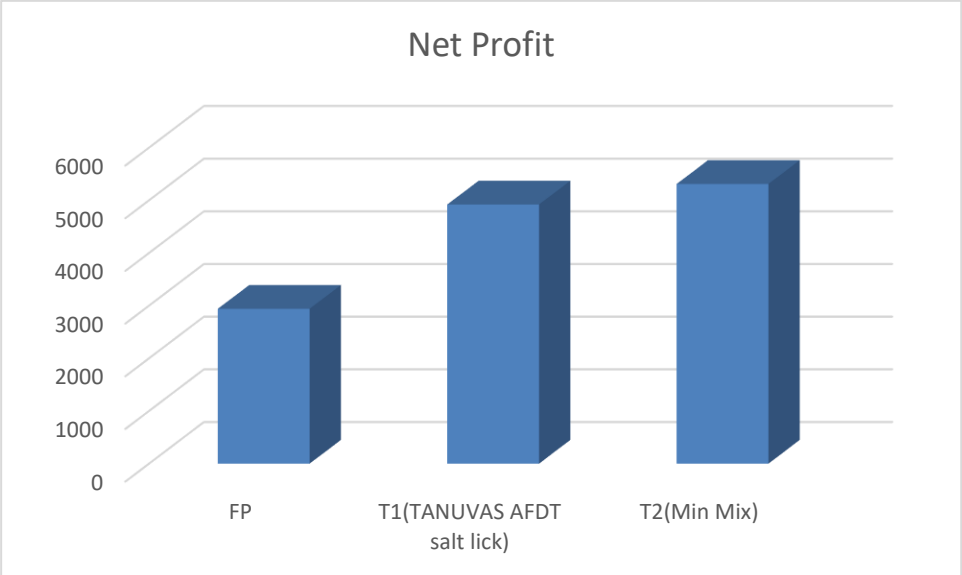
4. Assessment of AFTD salt in mineralized salt lick to improve growth performance in Dairy calves/small ruminant

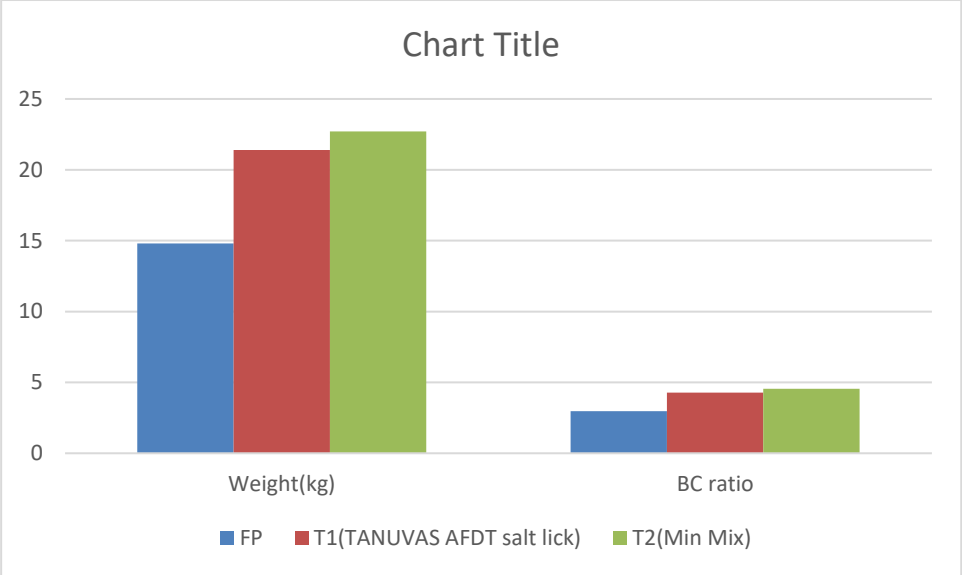
1. Thematic area: Animal Nutrition
2. Title: **Assessment of AFTD salt in mineralized saltlick to improve growth performance in Dairy calves/small ruminants**
3. Scientists involved: Dr.M.Sabapathi
4. Details of farming situation:Wetland ecosystem
5. Problem definition / description: (one paragraph): Farmers did not give mineral mix to animals. Mineral deficiency leads to stunted growth in young; poor in growth parameters and in reproductive efficiency in adult.

6. Technology Assessed: (give full details of technology as well as farmers practice)
):
TANUVAS AFLD salt lick produced by TANUVAS, 2019 and Min mix salt lick produced by TANUVAS 2018, were issued and fed to growing goats. Weight gain and growth parameters studied
7. Critical inputs given: (along with quantity as well as value)
One pocket TANUVAS Min mix salt lick
And One TANUVAS AFTD Salt lick for every 4 goats
8. Results:
Both played vital role in growth rate and weight gain .

	Weight(kg)	Gross income	Total cost	Net Profit	BC ratio
FP	14.8	4440	1500	2940	2.96
T1(TANUVAS AFDT salt lick)	21.4	6420	1500	4920	4.28
T2(Min Mix)	22.7	6810	1500	5310	4.54

Experimented for 9 month period and T1 & T2 played vital role to improve body weight to 21.4kg & 22.7kg against farmers practice. But grazing framers found easy to use salt lick.





9. Constraints: Local availability
10. Feedback of the farmers involved: farmers like salt lick but broken nature is discusting
11. Feed back to the scientist who developed the technology:
AFTD is performing well but easily breakable by transport and handling

2022-23

1*. Assessing the Non-Chemical Methods against Rice Ear head bug *Leptocorisa acuta

1. Thematic area: Integrated Pest Management

2. Title: Assessing the Non-Chemical Methods against Rice Ear head bug *Leptocorisa acuta*
3. Scientists involved: Dr.V.Radhakrishnan, SMS(Agrl.Ento)

4. Details of farming situation:Cauvery delta zone, Irrigated, Sandy clay loam soil

5. Problem definition / description: Rice is cultivated over 1,85,000 ha in Thiruvarur district. Most of the farmers are relay on insecticides and fungicides to control pest and diseases. Indiscriminate use of pesticides will leads to pollution, residue and resurgence problems. To overcome the above issues, the present OFT is proposed

6. Technology Assessed: (give full details of technology as well as farmers practice)

TO-1	Foliar Spray of Neem Seed Kernal Extract 5 %
Source and year	TNAU CPG 2020
Description (short)	During the flowering stage, application of insecticide is very difficult and it leads to residue problem. To avoid residual problem, it is planned to utilize the botanicals for the management of Ear Head Bug in rice
TO-2	Foliar Spray of Azadiractin 300 ppm @ 3 ml/lit ; Foliar spray of Acorus calamus aqueous rhizome extract @ 10 %
Source and year	UAS, Dharwad, 2015
Description (short)	Botanicals would be the best option to manage the ear head bug issues in the rice crop
Source of Inputs	Local Fertilizer shop
Farmers Practice	Insecticides alone

7. Critical inputs given: Neem Seed Kernal Extract 5 %, Azadiractin 300 ppm, Acorus calamus aqueous rhizome extract @ 10 %

8. Results:

Table : Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*NetReturns (Rs./ha)*	*B:C*	No of earhead bug/plants
Farmers Practice: Insecticides alone	*5*	*5.41*	*23395*	*1.47*	*3.8*

Technology 1: Foliar Spray of Neem Seed Kernal Extract 5 %		*6.04*	*33040*	*1.68*	*0.3*
Technology 2: Foliar Spray of Azadiractin 300 ppm @ 3 ml/lit ; Foliar spray of Acorus calamus aqueous rhizome extract @ 10 %		*5.53*	*26355*	*1.55*	*2.1*

Description of the results:

9. Constraints: The farmers are highly dependent on insecticide, since they could see the result within 2 to 3 days. Now only the farmers are realising slowly to adopt the eco friendly management strategies.

10. Feedback of the farmers involved: Eco friendly management of paddy ear head bug gave good result against other methods

11. Feed back to the scientist who developed the technology:
Usually the farmers are using insecticide during grain filling stage.
At the time of grain filling stage, insecticide will be used for paddy, leads to residual problem.Hence, eco friendly management is the best solution against ear headbug

2. Assessment of Zinc Fortification in rice variety ADT 53

1. Thematic area: Nutrient Management
2. Title: **Assessment of Zinc Bio-fortification in rice variety ADT 53**
3. Scientists involved: Dr.M.Selvamurugan
4. Details of farming situation
   - ❖ Location of trial
     Mostly delta farmers cultivating the paddy crop in three season, it creates the decline in soil health. The yield of paddy crop was also declined due to deficiency of zinc nutrients in soil. Seventy percentage of soil was deficient in Zinc.
   - ❖ Season
     The main cropping systems followed by the farmers are Rice – Rice – Rice fallow pulses, Rice – Rice – Groundnut. Rice is cultivated both Kharif and Rabi season of every year under irrigated condition. On farm trial sowing has taken up during Kharif season with available water source.
   - ❖ Farming situation (Irrigated/Rainfed)
     Rice, Pulses, Groundnut and Sesame cultivation under irrigated condition.
   - ❖ Soil type and fertility status
     The soil type is clay loamy with a pH of 7.4 and EC of 0.34 dSm^{-1} with a soil nutrient status of low Nitrogen (252 kg/ ha), medium Phosphorus (18.2 kg / ha) and medium Potassium (270 kg /ha). Since the critical limit of Zn in terms of DTPA (pH 7.3) extractable Zn was 1.20 mg Zn kg^{-1} soil and the content of DTPA (pH 7.3) extractable Zn was 0.40 – 0.68 mg Zn kg^{-1} in Sathanur and Paruthikottai villages of Needamangalam block in Thiruvarur district
5. Problem definition /description
   - Normally farmers cultivate paddy crops in Kharif, Rabi and Summer season.
   - Zinc deficiency was observed in three seasons and affects the yield of crops

- Poor grain yield and less farm income.
- Milled rice grains lose essential zinc nutrients through polishing.
- No awareness on zinc bio-fortification White
- The main objective of the study was to increase the zinc concentration in milled rice grain.

6. Technology Assessed

Three varieties were assessed in zinc bio-fortification by basal soil application of 50 kg $ZnSO_4$ along with foliar spraying of 0.50% $ZnSO_4$ thrice at 50% flowering, milky and dough stages in Kharif season.

1. Biofortification in Rice variety ADT 53
2. Biofortification in Rice variety DRR Dhan 45
3. Biofortification in Rice variety CO 51

7. Critical inputsgiven – Following inputs were given.

Name of the critical inputs	Quantity (kgs)
Seed of Rice varieties	30 kg per farmer
Zinc sulphate	$ZnSO_4$ @ 20 kg/ ac

8. Results

Table : 1. Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs/ha)*	*Net returns (Rs./ha)*	*B:C*	*Zinc content in milled grain (mg/Kg)*
Technology Option 1- Biofortification in Rice variety ADT 53	5	57.84	66350	58295	1.88	*41.55*
Technology Option 2 - Biofortification in Rice variety DRR Dhan 45		52.45	68100	44930	1.66	*29.95*
Technology Option 3- Biofortification in Rice variety CO 51		53. 80	66200	49739	1.75	*33.89*

The On farm trials were conducted in five farmers field at Needamangalam block of Thiruvarur district during Kharif season 2022. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The growth parameters, yield and yield attributes of the different varieties were recorded. The available macronutrients and zinc content of initial and post harvest soil samples were recordedin OFT trials. Further, Zinc concentration in milled grain samples were analysed and presented in the following Figure. The results showed that the higher zinc concentration of 41.55 mg/kg of milled grain is recorded in rice variety ADT 53 over other rice varieties. It is followed by the rice variety CO 51, which recorded zinc concentration of 33.89 mg/kg of milled grain. The lowest zinc concentration of 29.95 mg/kg of milled grain is recoded in DRR DHAN 45.

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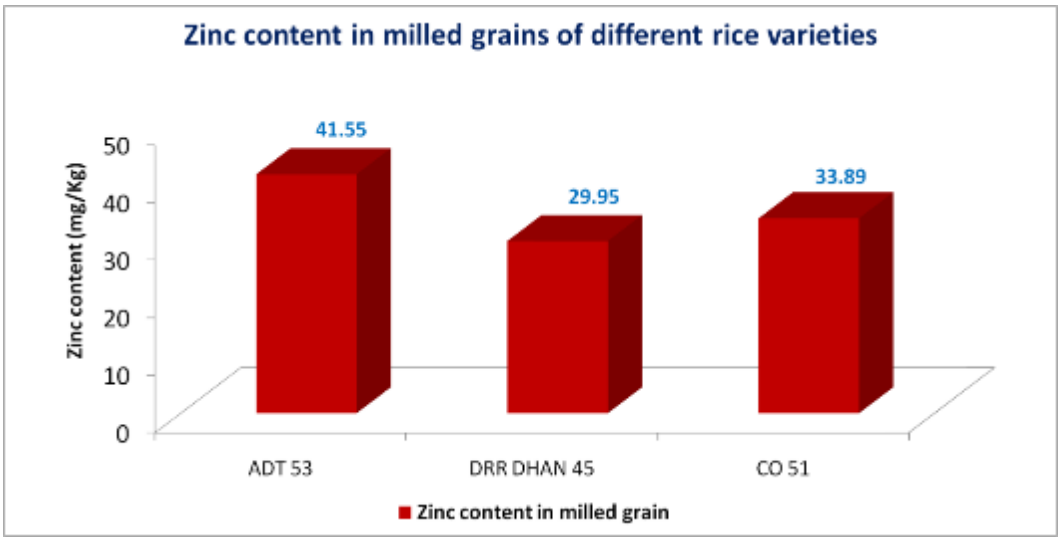


Constraints faced:

Farmers are not aware about the zinc Bio-fortification in rice grain and its benefits. Further, the farmers are not having enough interest in bio-fortification.

9. Feed back of the farmers involved

This technology is really essential to solve the nutrient deficiency among the peoples. However, the creation of awareness among the peoples about the importance of zinc fortification and its benefits would increase the market value of the bio-fortified rice grains.

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

Creation of awareness among the peoples about the importance of zinc fortification and its benefits would increase the market value of the bio-fortified rice grains.

3. Assessment of Zinc Solubilizing Bacteria for enhancing Zn in rice variety CO 52

1. Thematic area: Nutrient Management

2. Title: Assessment of Zinc Solubilizing Bacteria for enhancing Zn in rice variety CO 52

3. Scientists involved: Dr.M.Selvamurugan

4. Details of farming situation

- Location of trial

  Mostly delta farmers cultivating the paddy crop in three season, it creates the decline in soil health. The yield of paddy crop was also declined due to deficiency of zinc nutrients in soil. Seventy per centage of soil was deficient in Zinc. Since the critical limit of Zn in terms of DTPA (pH 7.3) extractable Zn was 1.20 mg Zn kg^{-1} soil and the content of DTPA (pH 7.3) extractable Zn was 0.48 – 0.72 mg Zn kg^{-1} in Pudukkottai and Rayapuram Villages of Needamangalam block. Hence, KVK, Thiruvarur conducted On farm trial to assess the efficiency of various Zinc solubilizing bacteria on rice variety CO 52 in Zinc deficient soils of Pudukkottai and Rayapuram villages of Needamangalam block during Rabi season of 2022-23

- Major crops grown

  Vaduvur and Rayapuram Villages – Rice under irrigated condition, Pulses, Groundnut and Sesame.

- Season

  The main cropping systems followed by the farmers are Rice – Rice – Rice fallow pulses, Rice – Rice – Rice - Groundnut, Rice is cultivated both Kharif and Rabi

season of every year under irrigated condition. On farm trial sowing has taken up during September month (Thaladi season) with available water source.

- ❖ Farming situation (Irrigated/Rainfed)
  Paddy was mainly cultivated in irrigated condition in both villages.
- ❖ Soil type and fertility status

  The soil type is clay loamy with a pH of 7.42 and EC of 0.51 dS m^{-1} with a soil nutrient status of low Nitrogen (298 kg/ ha), medium Phosphorus (20.2 kg / ha) and medium Potassium (278 kg /ha). Since the critical limit of Zn in terms of DTPA (pH 7.3) extractable Zn was 1.20 mg Zn kg^{-1} soil and the content of DTPA (pH 7.3) extractable Zn was 0.48 – 0.72 mg Zn kg^{-1} in Pudukkottai and Rayapuram Villages of Needamangalam block. While, S, Fe, Cu, Mn and B were in sufficient status.

5. Problem definition /description

- Normally farmers cultivate paddy crops in Kharif, Rabi and Summer season.
- Zinc deficiency was observed in three seasons and affects the yield of crops
- No awareness on alternative sources for zinc sulphate
- Non adoption of zinc solubilising bacteria.
- Poor grain yield and lesser income.
- The main objective of the study was to assess the efficacy of Zinc Solubilizing Bacteria for enhancing Zn in rice variety CO 52.

6. TechnologyAssessed

Three technologies were assessed in zinc deficient soils during Rabi season.

1. Soil application of ZSB @ 720 ml in 36 kg vermicompost /ha (*Pseudomonas chlororaphis*) + Azophos @ 4 kg/ha + Zinc sulphate @ 25 kg/ha
2. Soil application of 12.5 kg of Zinc solubilizing bacteria/ha (*Bacillus aryabhattai*) + Zinc sulphate @ 25 kg/ha
3. Farmers practice – Non application of ZSB (Application of Zinc sulphate@ 25 kg/ha)

7. Critical inputs given – ZSB was supplied by TNAU at free of cost

Name of the critical inputs	Quantity (kgs)
Seed of Rice variety CO 52	30 kg per farmer
Zinc solubilizing bacteria (*Pseudomonas chlororaphis*)	1.0 litre per farmer
Zinc solubilizing bacteria (*Bacillus aryabhattai*)	5.0 kg per farmer

8. Results

Table : 1. Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs/ha)*	*Net returns (Rs./ha)*	*B:C ratio*	*Data on Other performance indicators**
Technology Option 1 Soil application of ZSB- *Pseudomonas chlororaphis*	5	59.26	63850	62778	1.983208	-
Technology Option 2 Soil application of ZSB- *Bacillus aryabhattai*		57.10	64440	58611	1.909536	-

Technology Option 3 Farmers practice- Non application of ZSB (Application of Zinc sulphate@ 25 kg/ha)		51.82	62580	49092	1.784469	-

Description of the results

Parameters	Technology Option 1	Technology Option 2	Farmers practice
Grain yield (q/ha)	58.76	57.10	51.82
Gross cost (Rs. /ha)	63850	64440	62580
Gross return (Rs. /ha)	126628	123051	111672
Net return (Rs. /ha)	62778	58611	49092
B:C ratio	1.98	1.91	1.78
Available N (kg/ha)*	198	186	172
Available P (kg/ha) *	17.32	15.78	14.56
Available K (kg/ha) *	258	244	229
Available Zn (ppm) *	0.90	0.84	0.72

*Post harvest soil samples

Constraints faced:
Availability of the Zinc solubilising bacteria is the major problem faced by the farmers

9. Feed back of the farmers involved:

The cost of ZSB is comparatively lesser than the Zinc sulphate. Hence if the availability of the ZSB is of easy access to the farmers, adaption of the institutional ZSB will be improved.

10. Feed back to the scientist who developed the technology - Nil

4.Assessment of suitable in-situ rice straw decomposing technology through drone for improving the fertility status of the soil

1. Thematic area: Resource Management
2. Title: Assessment of suitable in-situ rice straw decomposing technology for improving the fertility status of the soil
3. Scientists involved: Dr. V. Karunakaran, SMS(AGR)
4. Details of farming situation:
   Location of trial:Needamangalam taluk in Thiruvarur district where rice is predominant crops, pulses, cotton, groundnut and sesame

   Major crops grown
   Rice is being cultivated in about 1,10,000 ha in the district out of which around 80000 ha land area is occupied by kuruvai and thaladi rice and 20000 ha is under summer irrigated.

   Season

The main cropping systems followed by the farmers are Rice –Rice – Rice. Rice is cultivated in all *kharif, rabi* and summer seasons of every year under irrigated condition. *Kharif* rice harvesting coincides with rainy season which was immediately followed by *thaladi* rice. Due to limited turn over period after the harvest of kuruvai rice the farmers are immediately going for thaladi rice which needs faster decomposition of the straw for immediate thaladi transplanting.

Farming situation (Irrigated/Rainfed)

Rice and groundut/sesame was mainly cultivated in irrigated condition in this block.

Climatic condition during the crop period

The annual rainfall of Needamangalam during 2022-23 was 1200 mm. Needamangalam village with moderate climate having coastal influence.

Soil type and fertility status

The soil type is clay loamy with a pH of 7.0 and EC of 0.4dSm^{-1} with a soil nutrient status of low Nitrogen (270 kg/ ha), medium Phosphorus (19.0 kg / ha) and medium Potassium (286 kg /ha). While S, Fe, Cu, Mn, and B were in sufficient status.

5. Problem definition / description: (one paragraph)

- Rice straw burning releases particulate matter, suspended solids, carbon di oxide, carbon monoxide and black carbon which directly affect the rice growing ecosystem and environment.
- During rainy days heavy downpour affects the decomposition of rice stubbles in anaerobic environment releases the methane emission which further aggravates the environment.

6. Technology Assessed: (give full details of technology as well as farmers practice)

TO-1	PUSA Decomposer
Source and year	Indian Agricultural Research Institute, New Delhi-2019
Description (short)	Pusa Decomposer plays an important role in in-situ and ex-situ decomposition of paddy straw. For In-situ management, harvesting paddy with combine followed by chopper plus mulcher and spraying Pusa Decomposer followed by rotavator and light irrigation to keep the field moist has shown accelerated decomposition of the paddy straw and enabled the farmer to do timely wheat sowing. This was widely demonstrated in Punjab, Haryana, UP and NCR Delhi. Use of Pusa Decomposer does not provide any machine substitution. It accelerates process of paddy straw decomposition and makes the field ready for wheat sowing in 25 days. Use of Pusa Decomposer enhances chemical, biological and nutritional profile of soil
Potential yield/income	-
Critical Inputs	PUSA Decomposer @ 4 capsules/ha (Free of cost from IARI New Delhi)
Source of Inputs	IARI New Delhi
TO-2	NCOF waste decomposer @ 50 g/10 t of waste
Source and year	National Centre for Organic Farming, Ghaziabad -2016

Description (short)	NCOF waste decomposer @ 50 g/10 t of waste for easy decomposition
Potential yield /income	-
Critical inputs& quantity and cost	NCOF waste decomposer @ 8 no.s/trial @ Rs .35 per no.s = Rs.280
Source of Inputs	NCONF Ghaziabad, Uttar Pradesh (M/s, DEWBORN Agronutrients, IDCO Industrial Estate, Bhubaneswar-752054)
Farmers Practice	Burning of straw and stubbles
Farmers yield	-

7. Critical inputs given: (along with quantity as well as value) NCOF waste decomposer @ 50 g/10 t of waste and PUSA Decomposer @ 4 capsules/ha (Free of cost from IARI New Delhi)

8. Results:

Table :Performance of the technology

Technology Option	***No.of trials***	***Yield (q/ha)***	***Net (Rs./ha)***	***B:C***	***Data on Other performance indicators****
Farmers Practice	*5*	40.30	40600	2.02	Given below
Technology 1(Mention details)		46.50	53000	2.24	
Technology 2(Mention details)		44.15	48300	2.13	

**** Other performance indicators: such as pest intensity, weed population, test weight, duration etc***

The On farm trials were conducted in five farmers field during summer season 2021-22. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The yield and other parameters recorded in OFT trials are presented below. PUSA Decomposer abd NCOF waste decomposer were tested in the farmer's field for OFT.

Description of the results

Parameters	Farmers Practice (Burning of crop residues)	Technology Option 1 (PUSA Decomposer)	Technology Option 2 (NCOF Decomposer)
Quantity of Compost generated (q/ton)	-	4.5	4.5
C/N ratio of compost after 30 days	-	25	29
Grain yield (q/ha)	40.30	46.50	44.15
Gross cost (Rs. /ha)	40000	41500	41500
Gross return (Rs. /ha)	80600	93000	88300

Net return (Rs. /ha)	40600	53000	48300
B:C ratio	2.02	2.24	2.13
Available N (kg/ha)	191	245	236
Available P (kg/ha)	17.0	20.2	19.5
Available K (kg/ha)	232	276	260

Results from OFT clearly indicated that the application of PUSA decomposer for decomposition found to influence the crops performance positively interms of yield (40.50 t/ha); reduced Carbon : Nitrogen ratio (25) thereby releases the nitrogen to the growing crops. Economics of the study revealed that groundnut variety PUSA decomposer registered higher benefit cost ratio (2.24) followed by NCOF decomposer and Farmers practices. Thus, the results revealed that the PUSA decomposer was found to be more efficient in enhanced decomposition reduced the wider C/N ratio in the farmers field.

9. Constraints: Availability of the fast microbial consortia for decomposition for the transition from *kuruvai* and *thaladi* season rice variety.

10. Feedback of the farmers involved: PUSA decomposer was the fast decomposing microbial consortia for rice straw and stubbles facilitating the decomposition.

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

5.Assessment of suitable groundnut variety for Cauvery Delta Zone

1. Thematic area: Varietal Assessment and Demonstration
2. Title: Assessment of suitable groundnut variety for Cauvery Delta Zone
3. Scientists involved: Dr.V.Karunakaran, SMS(AGR)
4. Details of farming situation:

Location of trial

Mannargudi taluk in Thiruvarur district where rice is predominant crops, pulses, cotton, groundnut and sesame

Major crops grown

Groundnut is being cultivated in about 52,000 ha in the district out of which 20000 ha is under summer irrigated. Major ruling variety Western- 44 / G7 was poor yielder.

Season

The main cropping systems followed by the farmers are Rice –Rice – Rice fallow summer groundnut, Groundnut is cultivated in all *kharif, rabi* and summer seasons of every year under irrigated condition. On farm trial sowing has taken up during January month (*summer* season) with available water source.

Farming situation (Irrigated/Rainfed)

Rice and groundut was mainly cultivated in irrigated condition in this block.

Climatic condition during the crop period

The annual rainfall of Needamangalam during 2022-23 was 1200 mm. Mahadevapattinam village with moderate climate having coastal influence.

Soil type and fertility status

The soil type is clay loamy with a pH of 7.2 and EC of 0.4dSm^{-1} with a soil nutrient status of low Nitrogen (260 kg/ ha), medium Phosphorus (18.0 kg / ha) and medium Potassium (280 kg /ha). While S,Fe,Cu,Mn and B were in sufficient status.

5. Problem definition / description: (one paragraph)

- Normally farmers cultivate poor yielding groundnut varieties in *kharif*, *rabi* and *Summer* season.
- In-situ germination of groundnut at the time of harvest reduces yield
- No awareness on recent varieties viz., VRI-9 and VRI-10 suited to Thiruvarur district
- The main objective of the study was to assess the suitable groundnut variety suited to Thiruvarur district.

6. Technology Assessed: (give full details of technology as well as farmers practice)

TO-1	VRI 10
Source and year	TNAU, 2022
Description (short)	Higher pod yield (2500 kg/ha). This variety is developed from VRI 2 x NRCG CS 349. It is a Spanish bunch shorter duration variety with 95 days. The average yield of culture is 2530 kg/ha. The oil content is 48% with seed viability. It has no in-situ germination of matured pods observed before harvest. It has moderate resistance to late leaf spot and rust besides thrips and leaf hopper. The variety is suitable for Chittrai, Adi and Aippasi pattam under rainfed and Margazhi pattam under irrigation.
Potential yield/income	25.00 q/ha
Critical Inputs	VBN 10 Seed @ 20 kg per trial @ Rs .120 per kg = Rs.2400
Source of Inputs	Regional Research Station, Vridhachallam
TO-2	Kadiri Lepakshi 1812
Source and year	ANGRAU
Description (short)	Kadiri Lepakshi; parentage: (ICGV 92069 / ICGV 93184) x ICGV 98300); Through pedigree selection released during the year 2020 with duration of 112 days with yielding potential of 35.00 q/ha. Oil content 51.00 %; shelling percentage: 70 % and 100 seed weight: 40 g. Very high yielding, profuse bearing spanish variety with high oil and high protein. Multiple resistant for drought, pests and diseases. Stable yields (15-20 q/ha) even under severe drought.
Potential yield /income	35.00 q/ha
Critical inputs& quantity and cost	Kadiri Lepakshi 1812 Seed @ 20 kg per trial @ Rs .100 per kg = Rs.2000
Source of Inputs	KVK Banavasi (Andhra Pradesh)
Farmers Practice	Western- 44 / G7
Farmers yield	19-21 q/ha

7. Critical inputs given: (along with quantity as well as value): seed

8. Results:

Table :Performance of the technology

Technology Option	***No.of trials***	***Yield (q/ha)***	***Net s***	***B:C***	***Data on Other***

			(Rs./ha)		*performance indicators**
Farmers Practice	*5*	17.80	73500	2.23	Given below
Technology 1(Mention details)		23.45	115875	2.93	
Technology 2(Mention details)		21.63	102225	2.70	

**** Other performance indicators: such as pest intensity, weed population, test weight, duration etc***

The On farm trials were conducted in five farmers field during summer season 2021-22. KVK offered off campus training, distributed critical inputs to the beneficiaries and demonstrations were carried out. The yield and other parameters recorded in OFT trials are presented below. *Kadiri lepakshi* 1812 and VRI 10 groundnut varieties were tested in the farmers field for OFT.

Western- 44 / G7

Description of the results

Parameters	Farmers Practice Western- 44 / G7	Technology Option 1 VRI 10	Technology Option 2 Kadiri Lepakshi 1812
Plant height (cm)	30.5	34.5	40.5
No. of branches	5.3	7.2	6.8
Pods/plant	14	25	23
100 grain wt (g)	37.4	40.2	34.1
Grain yield (q/ha)	17.8	23.45	21.63
Gross cost (Rs. /ha)	60000	60000	60000
Gross return (Rs. /ha)	133500	175875	162225
Net return (Rs. /ha)	73500	115875	102225
B:C ratio	2.23	2.93	2.65
Available N (kg/ha)	214	224	236
Available P (kg/ha)	17.0	16.8	19.5
Available K (kg/ha)	254	249	260

Results from OFT clearly indicated that the groundnut variety VRI 10 had positively influenced plant growth attributes viz., plant height (34.5 cm) and number of branches (7.2) as well as yield parameters such as 100 grain weight (40.2 g), grain yield (23.45 q/ha) as compared to farmers practice (Western- 44 / G7) and kadiri lepakshi 1812.

Economics of the study revealed that groundnut variety VRI 10 cultivation registered higher net returns (Rs. **115875**/ha) and benefit cost ratio (2.93) followed by and Farmers practices. Thus, the results revealed that the rice fallow groundnut variety VRI 10 was found to be efficient in enhancing growth and yield of groundnut and in the rice fallow summer irrigated condition.

9. Constraints: Availability of the groundnut variety VRI 10 which is a recently released during 2022 is the major problem faced by the farmers

10. Feedback of the farmers involved: Uniform maturity and almost nil insitu germination is noticed by the farmers at the time of harvest.

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

6. Management of Fusarium wilt disease in Cotton: continuing

7.Assessment of bhendi hybrids in Thiruvarur district

<table>
<tr><td>1.</td><td>Thematic area</td><td>:</td><td>Varietal Assessment</td></tr>
<tr><td>2.</td><td>Title</td><td>:</td><td>Assessment of Bhendi (Abelmoschus esculentus L.) hybrids in Thiruvarur district</td></tr>
<tr><td>3.</td><td>Scientists involved</td><td>:</td><td>Dr. S. Arulselvi, Assoc. Prof. (PBG)</td></tr>
<tr><td>4.</td><td>Details of farming situation</td><td>:</td><td>Irrigated</td></tr>
<tr><td>5.</td><td>Problem definition / description</td><td>:</td><td>Farmers are unaware about the identification of suitable bhendi hybrids in Thiruvarur district.</td></tr>
<tr><td>6.</td><td>Technology Assessed</td><td>:</td><td>
<table>
<tr><td>TO-1</td><td>CO(Bh) -4</td></tr>
<tr><td>Source and year</td><td>TNAU, 2016</td></tr>
<tr><td>Description (short)</td><td>Selection from BHD 9 / Karamadai local, 110 days duration, yield 25.60 t/ha, 19.6 and 23.1% increase over COBhH1 and Sakthi respectively 32.40 t/ha; Suitable for all the districts of Tamil Nadu except hilly regions; 22 harvests in 110 days starting from 39 days after sowing; resistant to bhendi Yellow Mosaic Virus disease.</td></tr>
<tr><td>Potential yield/income</td><td>32.40 t/ha</td></tr>
<tr><td>Source of Inputs</td><td>TNAU, Coimbatore</td></tr>
<tr><td>TO-2</td><td>Arka Abhay</td></tr>
<tr><td>Source and year</td><td>IIHR,2017</td></tr>
<tr><td>Description (short)</td><td>This okra hybrid between GMS-4 X IIIHR-299-14-11-585, has been identified for release during 2017. Takes 39 days for the first flower appearance and 43 days for first picking of fruits. Produces dark green, medium, smooth and tender fruits. Excellent cooking quality. Rich in iodine content (33.31µ g/kg).Yields 21-24 t/ha in 125 -130 days duration</td></tr>
<tr><td>Potential yield/income</td><td>21-24 t/ha</td></tr>
<tr><td>Source of Inputs</td><td>IIHR, Bangaluru</td></tr>
<tr><td>Farmers Practice</td><td>Private hybrids</td></tr>
</table>
</td></tr>
<tr><td>7.</td><td>Critical inputs given</td><td>:</td><td>Seeds</td></tr>
<tr><td>8.</td><td>Results</td><td>:</td><td></td></tr>
</table>

Performance of the technology

Technology Option	*No. of trials*	Plant height (cm)	No. of fruits /plant	Yield/ plant (kg),	Yield/ ha(q),	B:C ratio
CO(Bh) 4	*5 (0.5 acre per trial)*	65	42	0.770	570.37	2.67
Arka Abhay		125	27	0.480	355.56	2.17
Private hybrid		105	21	0.320	237.04	1.50

- Even though CO(Bh) 4 is shorter (65cm) than Arka Abhay (125 cm) and Private hybrid (105 cm) it produced more number of fruits per plant (42).
- CO(Bh) 4 put forth shorter fruit (12.5 cm) while Arka Abhay (22 cm) and private hybrid (20 cm) produced lengthy fruit.
- CO(Bh) 4 recorded higher fruit weight (570.37 q) than Arka Abhay (355.56 q) and private hybrid (237.04 q)
- Since shorter bhendi fruits are preferred by the consumers, CO(Bh)4 is considered to be the most preferred variety on marketing point of view
- Economics of the study revealed that technology option one of CO(Bh) 4 had higher net returns (Rs. 80000/- /ha) and benefit cost ratio (2.67) followed by technology option two of Arka Abhay (Rs.65000/-) and Farmers practices(Rs.45000/-).

	TO1	TO2	Farmers practice
Yield (Q/ha)	570.37	355.56	237.04
Gross cost (Rs/ha)	80000	65000	45000
Net return (Rs/ha)	50000	35000	15000
BCR	2.67	2.17	1.50

9.	Constraints	:	• Lack of awareness on the choice of suitable bhendi variety for various seasons.
10.	Feedback of the farmers involved	:	• Farmers felt that CO(Bh)4 was the profitable one however it got fibrous when it left for a day after harvest. The fruits of Arka Abhay and Private variety remained tender even after a day of harvest.
11.	Feed back to the scientist who developed the technology	:	The scientist may ensure the seed multiplication of newly released varieties to avoid the shortage of seeds.

8.Assessment of Sirukeerai varieties in organic farming in Thiruvarur district

1.	Thematic area	:	Varietal Assessment
2.	Title	:	**Assessment of Sirukeerai varieties in organic farming in Thiruvarur district**
3.	Scientists involved	:	Dr. S. Arulselvi, Assoc. Prof. (PBG)
4.	Details of farming situation	:	Irrigated
5.	Problem definition / description	:	Farmers are unaware about the identification of suitable sirukeerai varieties in Thiruvarur district

6.	Technology Assessed	:	

TO-1	PLR-1
Source and year	TNAU, 2013
Description (short)	Short duration of 20-21 days with yield of 9 t greens and 200 kg of seeds/ha , Moderately resistant to white rust, Cercospora leaf spot and leaf webber Highly preferred due to the green colour of the entire plant. Selection from Thiruvannamalai local, Duration 20-21 days for greens 50-55 days for seed to seed ,Yield (Greens) 8984 kg/ha 16% over A9-local type Highest yield obtained (Greens) 11.7 t/ha.
Potential yield/income	11.7 t/ha
Source of Inputs	VRS, Palur (TNAU) Cuddalore
TO-2	Arka Samraksha
Source and year	IIHR,2019
Description (short)	Pulling type amaranth with pink stem, petiole and veins . Small ovate shaped pinkish green leaves . Yield potentials., 10.58 t/ha in 30-35 days duration and developed by ICAR-IIHR, Bangaluru
Potential yield/income	10.58t/ha
Source of Inputs	IIHR, Bangaluru
Farmers Practice	Local varieties
Farmers yield	7 t/ha

7.	Critical inputs given	:	Seeds
8.	Results	:	

Performance of the technology

Technology Option	*No. of trials*	Plant height(cm)	Herbage Yield/ plant (g)	Herbage Yield/ha (t)	White Rust incidence	B:C ratio
PLR-1	*5 (0.5 acre per trial)*	42	115	8.63	0.00	5.00
Arka Samraksha		94	130	9.36	0.00	3.80
Local varieties		103	110	7.73	100.00	3.10

- The sirukeerai variety PLR 1 was shorter (42 cm) when compared to Arka Samraksha (94 cm) and local variety (103 cm) and the leaf area also smaller in sirukeerai
- Even though sirukeerai PLR1 had lesser herbage (8.63 t/ha) than Arka Samraksha (9.36 t / ha) it was more delicious and preferred by the consumers.
- No incidence of white rust disease was found on both PLR1 and Arka Samraksha while local variety recorded 100 % of incidence

- Since sirukeerai was more delicious and preferred by the consumers it fetched high price in the market and hence sirukeerai PLR1 cultivation was more profitable than other varieties

	TO1	TO2	Farmers practice
Yield (t/ha)	8.63	9.36	7.73
Gross cost (Rs/ha)	250000	190000	155000
Net return (Rs/ha)	200000	140000	105000
BCR	5.00	3.80	3.10

9.	Constraints	:	• Lack of awareness on the choice of suitable sirukeerai variety for marketing
10.	Feedback of the farmers involved	:	• Sirukeerai variety PLR 1 was preferred by the consumers since it was very delicious. In addition to that the small leaves of PLR 1 was more attractive than large leaves of Arka Samraksha and Local variety in marketing point of view.
11.	Feed back to the scientist who developed the technology	:	The scientist may ensure the seed multiplication of newly released varieties to avoid the shortage of seeds.

9.Assessment of Bottle gourd hybrids for yield and market preference in Thiruvarur district

1.	Thematic area	:	Varietal Assessment
2.	Title	:	**Assessment of Bottle gourd (*Lagenaria sisararia* L.*)* hybrids in Thiruvarur district**
3.	Scientists involved	:	Dr. S. Arulselvi, Assoc. Prof. (PBG)
4.	Details of farming situation	:	Irrigated
5.	Problem definition / description	:	Farmers are unaware about the identification of suitable bottle gourd hybrids in Thiruvarur district
6.	Technology Assessed	:	

TO-1	PLR-2
Source and year	TNAU, 2019
Description (short)	It is a single plant (inbred) selection from Uchimedu (Cuddalore) local type • It is of traditional type with round fruit shape and short neck • Fruits are light green in colour • It does not require pandal support/training system • It yields 42.2 t/ha and recorded 35.3% yield increase over Pant Lauki 3 • First harvest starts in 50-55 days.
Potential yield/income	42.2 t/ha.
Critical Inputs	Seeds, biofertilizers and bio inoculants Rs.1000
Source of Inputs	TNAU, Coimbatore
TO-2	Arka Ganga
Source and year	IIHR,2013

Description (short)	F_1 hybrid Arka Ganga is resistant to gummy stem blight (*Didymella bryoniae*) with a yield potential of 58 t/ha. Fruits are green and oblong / oval. This hybrid will be ready to first picking by 56 days after planting. It is an open pollinated variety.
Potential yield/income	58 t/ha.
Critical inputs & quantity and cost	Seeds, biofertilizers and bio inoculants
Source of Inputs	IIHR, Bangaluru
Farmers Practice	Local varieties
Farmers yield	14.50 t/ha

7.	Critical inputs given	:	Seeds
8.	Results	:	

Performance of the technology

Technology Option	*No. of trials*	No. of fruits / plant	Fruit yield/ plant (kg)	Fruit yield/ha (t/ha)	B:C ratio
PLR-2	*5 (0.5 acre per trial)*	12	11.16	37.20	2.29
Arka Ganga		11	14.30	47.66	2.94
Local variety		10	8.20	27.33	1.68

- Bottle gourd varieties *viz.*, PLR 2 and Arka Ganga recorded 11 to 12 number of fruits per plant whereas local variety has ten number of fruits per plant
- The fruit weight of Arka ganga was found to be higher than PLR 2 and local variety. Arka Ganga recorded higher (14.30 kg) fruit weight per plant following by PLR 2 (11.16 kg) and local variety (8.20 kg)
- Economics of the study revealed that technology option two of Arka Ganga had higher net returns (Rs. 6,60,568/- /ha) and benefit cost ratio (2.94) followed by technology option one of PLR 2 (Rs.5,15,592/-) and Farmers practices(Rs.3,78,794/-).

	TO1	TO2	Farmers practice
Yield (t/ha)	37.20	47.66	27.33
Gross cost (Rs/ha)	5,15,592	6,60,568	3,78,794
Net return (Rs/ha)	290592	435568	153794
BCR	2.29	2.94	1.68

9.	Constraints	:	• Lack of awareness on the choice of suitable sirukeerai variety for marketing
10.	Feedback of the farmers involved	:	• Since PLR 1 bottle gourd variety had traditional bottle gourd shape, it was preferred by the consumers when compared to Arka ganga
11.	Feed back to the scientist who developed the technology	:	The scientist may ensure the seed multiplication of newly released varieties to avoid the shortage of seeds.

10.Assessing the performance of Oyster mushroom varieties

1	**Thematic area:**	Varietal Evaluation
2	**Title:**	Assessing the performance of Oyster mushroom varieties
3	**Scientists involved:**	Dr.S.Kamalasundari SMS(FSN) ,DrV.Radhakrishnan SMS Ento
4	**Details of farming situation**	ICAR – KVK, Thiruvarur is promoting mushroom as an enterprise to rural youth members of our KVK. Many participants attend trainings related to mushroom are conducted . Both oyster and milky mushroom are cultivated here but oyster mushroom is common. The trial was undertaken during September to Dec 2022 at Mannargudi ,Thiruvarur. Poondi Papanasam in Thiruvarur district. In winter season (December – February) average relative humidity is 78.16%. The major source of irrigation is Cauvery river Scheme lifted from bore well near Cauvery river.
5	Problem definition / description: (one paragraph)	Environmental factor is very important for the production of oyster mushroom. In Thiruvarur and Mannargudi block major environmental factors like temperature, humidity, fresh air and compact materials are well suited for mushroom production. During rainy season the temperature is 25-27degree centigrade and RH is 85%. Moreover the available rice hay can be used for production of mushroom that would be both nutritive and also provide better returns from the enterprise. The farmers practice varieties presently used are procured from private person without any labels and though the price is less no information about the species and characters. In general this F28 spawns are used by farmers they are weight less , stalk thin and leaf also thin Moreover it has less yield (200 g / kg substrate) and short shelf life (one day at ambient condition) from existing mushroom varieties. Because of these traits it cannot be also used for dehydration or any value added products preparation. Farm women lack entrepreneurship opportunity
6	**Technology Assessed:**	TO1 – Co2 Oyster mushroom spawn TNAU, 2016 TO2 – MDU 1 Oyster mushroom spawn TNAU, 1996 FP – F28 The yield of mushroom 2.days required to first primordial initiation,

		3.Biological efficiency (BE) was determined by the following formula: BE= (wt. of fresh mushroom fruit bodies) x 100/wt. of dry substrat 5. Days of completion of spawn, 6. number of fruit bodies and biological yield 7. Days of pinhead formation 7. Days of fruiting body formation 8.Average number of fruiting body 9Sensory Parameters (colour, flavour, texture, taste & over all acceptability), Shelf life study, BCR was also calculated
7	Critical inputs given	MDU 1 Spawn, Co2 Spawn, each 35nos2800
8	Results:	

Table :Performance of the technology

Technology Option	No.of trials	Yield (g/bag)				Net tur (Rs./bag)	Cost of Production Rs	B:C ratio
		Ist harvest	2nd harvest	Total				
Farmers Practice	5	550	400	950	190	140	50	1:3.8
Co2 Oyster mushroom spawn Technology 1		800	500	1300	260	210	50	1:5.2
MDU 1 Oyster mushroom spawn Technology 2		700	450	1150	230	180	50	1:4.6

Name of Substrate: Paddy straw

	Parameters	TO1 Co2	TO2 MDU1	FP
1.	Days of completion of spawn	21	21	22
2.	Days of Pinhead formation	18	16	16
3.	Days of Fruiting body formation	22	22	23
4	Average no of fruiting body	03	03	02-3
5	1st harvest In days	14	16	18

9	Constraints:	Only during rainy season farmers cultivate mushroom .
1	Feedback of the farmers involved:	Co2 variety is best suited for this district as the stack is thick leaf thick . As the keeping quality is good it can be used for value addition. Technologies for preparation of

		products like mushroom pickle and mushroom soup mix ,mushroom papad, mushroom processing , mushroom bajji bonda mix was popularized through demonstration.
1	Feed back to the scientist who developed the technology:	Co2 is best suited for this Thiruvarur district but the spawn availability to the farmers has to be made viable by sending through online method as the private people execute

11.Assessment of groundnut varieties suitable for confectionery

1	Thematic area	Varietal Evaluation
2	Title	Assessment of groundnut varieties suitable for confectionery
3	Scientists involved	Dr.S.Kamalasundari SMS(FSN)
4	Details of farming situation	The groundnut cultivated during Rabi season in the blocks of Needamangalam, Mannargudi and koradacherry blocks. The trial was undertaken during September to Dec 2022. The farmers grow in sandy loam soil and under irrigated condition. The varieties are Western 44, and G7 at Rs 80-100/-kg . seed rate is 50kg/acre . Both of them are table purpose seeds with oil content of less than 50%. The farmers get these seeds from unregulated markets and not as 100 % certified. The seed cost is high and they sell it with less margin
5	Problem definition / description: (one paragraph)	The yield is 1. 4 tonnes per acre (80kg bag of 17 bags) . The buyer comes to market and take the groundnut . The harvested seeds are sold at Pudukotai market , Ammapettai market, Jayamkondam market for Rs 7500-8500 /bag .
6	Technology Assessed: (give full details of technology as well as farmers practice)	Hands on training and demonstration was given preparation of Salted peanuts,roasted and sweetened peanuts , peanut butter, peanut chutney powder, masala peanut, candy preparation was given as follows to 369 farmers

		Post Harvest Management and Value Addition for Oilseeds,	Melathiruppalakudi	10.08.22	55
		Lecture on value addition of groundnut	Kadalangudi	26.08.22	65
		Demonstration on value added	ON Campus	19.10.22	200

		products world food day			
		Value addition of groundnut-OFT	ON Campus	19.09.22	15
		Value addition of agricultural and Horticultural Crops in KAVIADP	Vadaveri village	02.08.22	34
		Radio program on Value addition of Groundnut at AIR Karaikal on 20.12.22 and the youtube on https://youtube.be/QGtOD2NSsg.			
7	**Technology Assessed:**	TO1 **VRI 10** TNAU 2022 TO2 **BSR 2** TNAU 2019 FP Western 44, and G7 GAU Junagat			
8	Critical inputs given: (along with quantity as well as value)	**VRI 10**5 kg Rs 750 **Flex Rs**708 **Total Rs** 1458			

Results:

Characters	**VRI 10**	**BSR 2**	FP
100 kernel weight (g)	44.0 g	41.0g	45g
Shelling%	70.0	70.5	66.5
Oilcontent	48.0	45.01	47.0

Performance of the technology

S.No	Technology Option	Keeping Quality (days)			Organoleptic score			Gross cost (Rs/Kg)			Net return(Rs/Kg)			BCR		
		T1	T2	FP	T1	T2	FP	T1	T2	FP	T1	T2	FP	T1	T2	FP
1	Salted peanuts	90	100	97	8	9	8.5	90	90	90	110	120	110	1.2	1.3	1.2
2	Roasted &sweetened peanuts	90	100	97	8	9	8.2	100	100	100	115	120	105	1.15	1.2	1.05
3	peanut butter	55	60	50	7	9	8.2	100	100	100	225	280	250	2.25	2.80	2.5
	peanut chutney powder	60	75	68	8	9	9	110	110	110	140	140	140	1.27	1.27	1.27
4	masala peanut	14	16	15	7	9	8.2	130	130	130	275	300	280	2.11	2.30	2.15

Organoleptic characteristics of peanut butter, (9- Point Hedonic scale)

Parameters	TO1		TO2		TO3	
	Initial storage	Final storage	Initial storage	Final storage	Initial storage	Final storage
Colour	9	7	9	8	8	7
Flavour	8	6.8	9	8	8	6
Taste	9	6.5	9	7.5	7.5	6.2
Texture	8	6.8	9	7.0	8.5	7.5
Over all acceptability	8	6.4	9	7.5	8	7

9	Constraints	The IAMWARM supply groundnuts for free of cost the variety farmers prefer and hence they are not preferring these two varieties
10	Feedback of the farmers involved:	In view of the increasing demand of groundnut products by producers, processors and consumers, the importance of postharvest and processing technology is utmost important. There is need to focus on availability of improved seeds, promotion of home-made products for direct human consumption and edible groundnut and confectionery nuts as well as enhancement of sub-products in the rural areas
11	Feed back to the scientist who developed the technology:	BSR 2 is best suited for value added products There is also need to give focus on storage and of products, quality control, particularly of aflatoxins and technology transfer etc.

However two farmers are making Value added products and selling in the market

	Name and address	Products prepared in groundnut	Brand name
1	G.Balamurugan Kulamkalkarai Needamangalam	Groundnut oil Peanut butter project sanctioned from TNEED Salted and raw nuts	Velunachiar
2.	Ilamaran	Salted nuts	FPO South
	Edamelayur	Groundnut oil	

12. Assessment of Herbal based Acaricides for reduction of TICK & Mites in Small and large ruminants

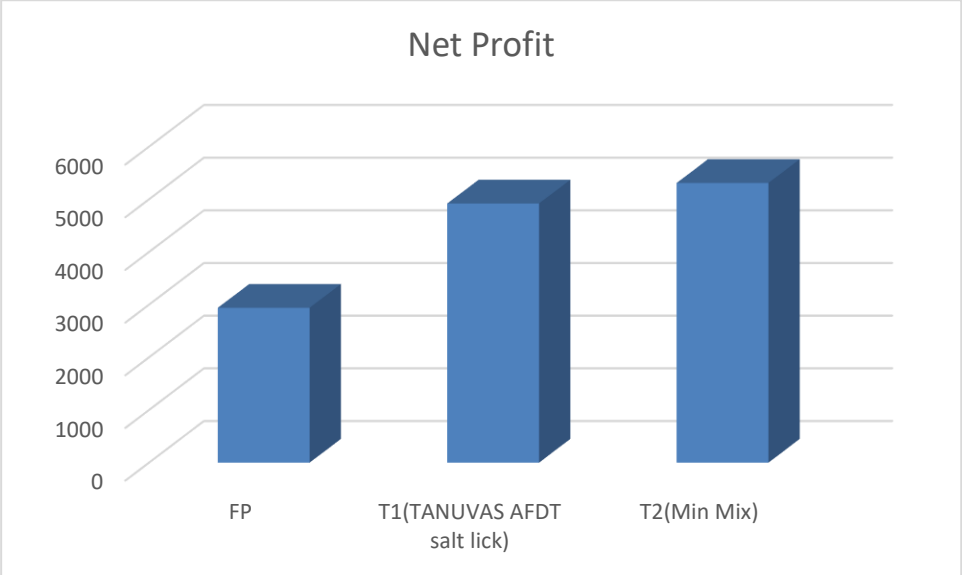
13.Assessment of TANUVAS Mineral Mixture over Goatmin for goat on growth performance

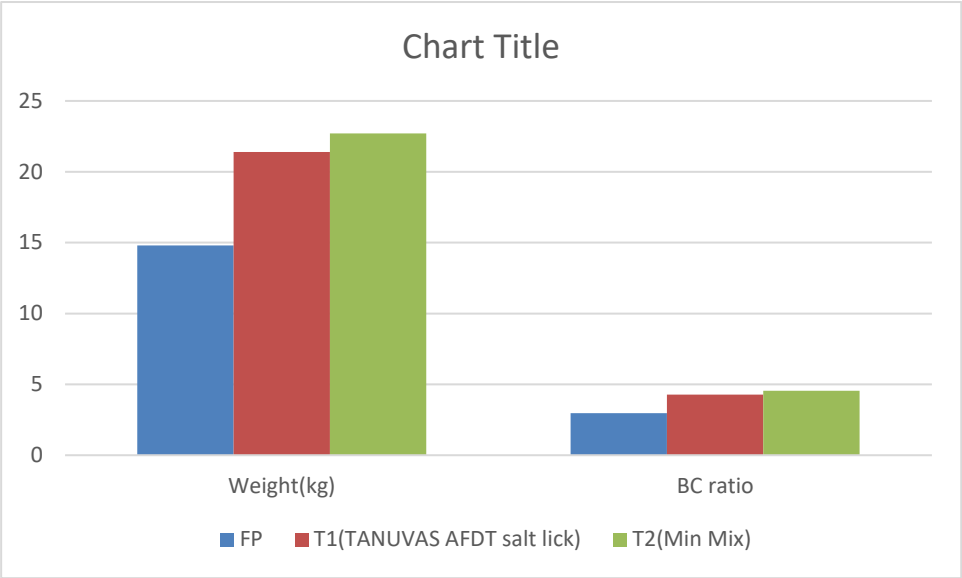
1. Thematic area: Animal Nutrition
2. Title: **Assessment of AFTD salt in mineralized saltlick to improve growth performance in Dairy calves/small ruminants**
3. Scientists involved: Dr.M.Sabapathi
4. Details of farming situation:Wetland ecosystem
5. Problem definition / description: (one paragraph): Farmers did not give mineral mix to animals. Mineral deficiency leads to stunted growth in young; poor in growth parameters and in reproductive efficiency in adult.

6. Technology Assessed: (give full details of technology as well as farmers practice)
TANUVAS AFLD salt lick produced by TANUVAS, 2019 and Min mix salt lick produced by TANUVAS 2018, were issued and fed to growing goats. Weight gain and growth parameters studied
7. Critical inputs given: (along with quantity as well as value)
One pocket TANUVAS Min mix salt lick
And One TANUVAS AFTD Salt lick for every 4 goats
8. Results:
Both played vital role in growth rate and weight gain .

	Weight(kg)	Gross income	Total cost	Net Profit	BC ratio
FP	14.8	4440	1500	2940	2.96
T1(TANUVAS AFDT salt lick)	21.4	6420	1500	4920	4.28
T2(Min Mix)	22.7	6810	1500	5310	4.54

Experimented for 9 month period and T1 & T2 played vital role to improve body weight to 21.4kg & 22.7kg against farmers practice. But grazing framers found easy to use salt lick.





9. Constraints: Local availability
10. Feedback of the farmers involved: farmers like salt lick but broken nature is discusting
11. Feed back to the scientist who developed the technology:

AFTD is performing well but easily breakable by transport and handling

Frontline Demonstrations in Detail

2021-22

1. Demonstration of IPM against Viral diseases of Black gram

Crop	:	Groundnut
Thematic area	:	Black gram
Technology demonstrated	:	Demonstration of IPM against Viral diseases of Black gram
Season and year	:	Rabi 2022
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	4
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	2
Actual area (ha)	:	2
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Resistant variety against black gram yellow mosaic virus gave good result
Feedback of the Scientist	:	Farmers are highly satisfied with the resistant variety and wide range of farmers are adopting the resistance variety
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Three trainings and one field day was conducted. Two Paper news published

Result

Particulars	YMV Disease Incidence (%)	Yield (q/ha)	Economics (Rs/ha)			
			Gross income	Gross cost	Net return	BCR
Demo	0	9.25	74000	29200	44800	2.53
Farmer's practice	37.23	6.5	52000	23800	28200	2.18

2.Demonstration of IPDM for pest and disease management in groundnut

Crop	:	Groundnut
Thematic area	:	**IPDM**
Technology demonstrated	:	**Demonstration of IPDM for pest and disease management in groundnut**
Season and year	:	2022
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	2
Actual area (ha)	:	2
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Eco friendly management for groundnut pest and disease would reduces the damage slowly
Feedback of the Scientist	:	The farmer are satisfied with the technology. But, they are in need of immediate control
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Four trainings and one field day was conducted. Four Paper news published

Result:

Particulars	Leaf miner Incidence (%)	Yield (q/ha)	Economics (Rs/ha)			
			Gross income	Gross cost	Net return	BCR
Demo	14.8	22.08	132480	42680	89800	3.10
Farmer's practice	34.2	17.02	102120	46500	55620	2.20

3.Demonstration on foliar application of TNAU Cassava booster with ICM in cassava

Crop	:	Cassava
Thematic area	:	Integrated Crop Management
Technology demonstrated	:	Demonstration on foliar application of TNAU Cassava booster with ICM in cassava
Season and year	:	2022
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10

No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	By applying Cassava booster as foliar spray recorded higher fresh tuberous yield per plant compared to check. So, the application of Cassava booster would be better option for Cassava cultivation in Tolerant to Cassava Mosaic Virus incidence and tolerance to drought situations.
Feedback of the Scientist	:	Role of Cassava booster as foliar spray is highly immense in the performance of cassava against the mosaic viral disease incidence and in all the locations. The farmers are very much interested in adopting Cassava booster in the ensuing season in their cassava cultivation by seeing the crop performance and yield.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	One off campus training and field day on TNAU Cassava booster with ICM in cassava was conducted at Mahadevapatiinam village on 03.11.2022 involving the local Assistant Agricultural Officer for further dissemination of the technology.

	Check	**Demo**
Yield (Q/ha)	365.4	425.5
Gross cost (Rs/ha)	74000	77000
Gross return (Rs/ha)	255780	297850
Net return(Rs/ha)	181780	220580
BCR	3.45	3.87

4.Demonstration of ICM in MDU 1 Cluster Bean Variety (*Cyamopsis tetragonoloba* L.) in Thiruvarur District

Crop	:	Cluster bean
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	**Demonstration of ICM in MDU 1 Cluster Bean Variety (*Cyamopsis tetragonoloba* L.) in Thiruvarur District**
Season and year	:	Kharif,2021-22
Farming situation	:	Irrigated

Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	MDU 1 cluster bean performed well under irrigated condition and produced more no of pods per plant. It had market preference also since it did not have bitter taste
Feedback of the Scientist	:	MDU-1 is the first release in cluster bean from Agricultural College & Research Institute (AC&RI), Madurai. It has a cluster bearing nature (7-9 fruits/node) with long attractive green colored fruits measuring 13-14 cm. Plant matures in 90-100 days and has more number of fruits / plant (150-175 fruits) with an attainable yield of 250-300 g/plant. Fruits are rich in fiber content (4.5g/100g of the fruit) and the plants can tolerate to powdery mildew disease.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	One training on Protected cultivation technology in vegetable crops was conducted for the farmers and farm women

	Check	Demo
No. of pods per plant	109	142
Pod Yield (Q/ha)	83.14	114.63
Gross income (Rs/ha)	372384	513428
Gross cost (Rs/ha)	112164	97425
Net return (Rs/ha)	260220	416003
BCR	3.32	5.27

5.Demonstration of ICM in COH-1 Ridge Gourd (*Luffa acutangula* Roxb.) Hybrid

Crop	:	Ridge gourd
Thematic area	:	Integrated Crop Management
Technology demonstrated	:	**Integrated Crop Management (ICM) in Ridge gourd hybrid(COH-1) in Thiruvarur district**
Season and year	:	Rabi, 2022

Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	By cultivating Ridge gourd was found suitable in Thiruvarur district with pandal system. So, the cultivation of Ridge gourd becomes better option for crop diversification instead of other crops such as pulses and other vegetable crops. This also more profit than pulses moreover regular income from 58 days onward after sowing up to 120 days.
Feedback of the Scientist	:	Role of Ridge gourd as a suitable pandal vegetable crop in the field of Thiruvarur district is highly immense in the performance in all the locations. The farmers are very much interested in adopting this technology by seeing the crop performance.
Extension activities on the FLD	:	One off campus training cum field day on Hybrid Ridge gourd (COH-1)with ICM was conducted at MukkulamSathanur village on 06.02.2022 and Magadevappattinam village of Needamangalam on 27.07.2021

Sl.No	Parameters	Farmers Practice	Demonstration
1.	Vein length (cm)	60.50	78.60
2.	No. of fruits/plant	4.72	8.87
3.	Yield/ plant (kg)	1320	3027
4.	Yield/ ha(q)	592	1754
5.	Gross cost(Rs.)	7298	6960
6	Net returns (Rs)	10656	35080
7	B:C Ratio	1:2.46	1:6.04

6.Demonstration of Poovan (*Musa spp*.) banana variety for leaf purpose in Thiruvarur District

Crop	:	Banana
Thematic area	:	Crop Management
Technology demonstrated	:	**Demonstration of Poovan (*Musa spp*.) banana variety for leaf purpose in Thiruvarur District**
Season and year	:	Khari, 2021
Farming situation	:	Irrigated

Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	The fruits of newly released poovan banana variety were small in size and acidic sweet in taste. The leaves were harvested and sold to the hotels for fair price.
Feedback of the Scientist	:	The duration of this variety is 13-14 months, average bunch weight is 20 kg and it has 10-13 hands with 130-180 fruits/bunch. It has high pillacrome rate (rate of leaf production per plant). The length of the fruit is 10-13 cm and girth is 9-10cm. The fruits are acidic sweet in taste.
Extension activities on the FLD	:	The training on ICM in fruit crops was conducted for the farmers and farm women

Sl.No	Parameters	Farmers Practice	Demonstration
1	Fruit Yield(q/ha)	392	490
2	Gross income (Rs.)	588000	735000
3	Gross cost (Rs.)	275000	275000
4	Net returns (Rs.)	3,13,000	4,60,000
5	B:C Ratio	2.14	2.67

7.Demonstration of Kaveri Saba Banana(*Musa spp*.) Variety in Thiruvarur District

Crop	:	Banana
Thematic area	:	Crop Management
Technology demonstrated	:	**Demonstration of Kaveri Saba Banana (*Musa spp*.) Variety in Thiruvarur District**
Season and year	:	Khari, 2021
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4

Justification for shortfall if any:	:	Nil
Feedback from farmers	:	The fruits and leaves of this variety were sold and it seemed to be profitable. It could withstand marginal soils. The fruits could be stored for 7 days without loss.
Feedback of the Scientist	:	Kaveri Saba is medium statured with 3- 3.5m height with dark green shiny leaves. Bunch has slight angular in position. Bunch has approximately 9- 10 hands which are loosely packed. Crop duration is 12 months and average bunch weight is between 26- 29 kg, with the yield potential of maximum 35kg. Fruits are conspicuously dark green, flattened withblunt tip. Fruit pulp is starchy with mealy texture. This can be a suitable substitute for local Bluggoe and Bontha type bananas viz., AdukkuMonthan, Naadu and Vayalvazhai etc. This was also found suitable for one main and two ratoon (1+2) crops with stable yield. Main attribute is its tolerance to moisture deficit stress (drought) compared to other cooking types.
Extension activities on the FLD	:	The training on ICM in fruit crops was conducted for the farmers and farm women

Sl.No	Parameters	Farmers Practice	Demonstration
1	Yield (q/ha)	563.50	673.75
2	Gross income (Rs.)	845250	1010625
3	Gross cost (Rs.)	325000	325000
4	Net returns (Rs.)	5,20,250	6,85,625
5	B:C Ratio	2.60	3.11

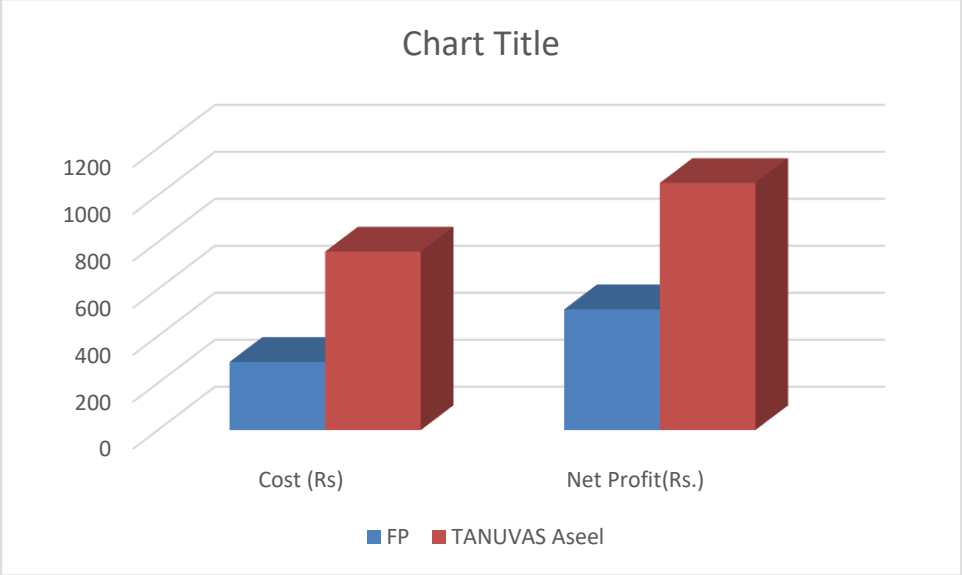
8.Demonstration of TANUVAS Aseel chicken for egg and meat production under semi intensive system of rearing

Crop	:	Poultry production
Thematic area	:	Breed popularization
Technology demonstrated	:	**Demonstration TANUVAS Aseel Chicken for egg and Meat production under semi intensive system of rearing**
Season and year	:	Rabi, 2021-2022
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/beneficiaries)	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	-

Actual area (ha)	:	-
Justification for shortfall if any:	:	-
Feedback from farmers	:	Good for egg, but difficult for marketing meat
Feedback of the Scientist	:	To avoid bulkiness for marketing
Extension activities on the FLD	:	Training and demonstration

Egg Purpose

	Cost (Rs)	Total profit(Rs.)	Net Profit(Rs.)	Bc Ratio
FP	290	804	514	2.772414
TANUVAS Aseel	760	1812	1052	2.384211



Every 7 month 2 batches of TANUVAS Aseel and One batch of native chicken were harvested as below.

	Weight	Cost	Gross Profit	Net Profit	BC Ratio
FP	1.1	80	500	420	6.25
TANUVAS Aseel	3.74	280	748	468	2.671429

TANUVAS Aseel is commercially not viable for meat purpose as compared to native practice due to marketing and low price. It is highly suitable for egg purpose.

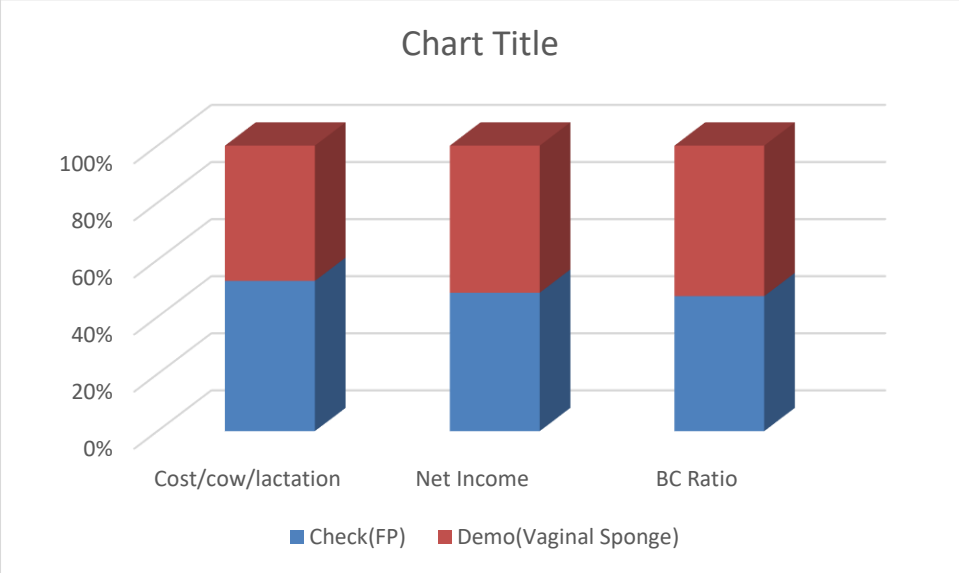
9.**Demonstration of Intravaginal Sponge in dairy cattle**

1. Technology- Demonstration of Intravaginal Sponge in dairy cattle

Crop: Cow
Thematic area: Animal reproduction
Technology demonstrated: Demonstration of Intra-Vaginal Sponges in Dairy Cattle

Season and year:2021-22
Farming situation: Wetland
Source of fund: Main
No of locations (Villages):10
No. of demonstrations (replications/farmers/beneficiaries):10
No of SC/ST Farmers and women farmers:4
Area proposed (ha):10 cows
Actual area (ha)-
Result:
There is no any change in milk yield in between demo and check. But calving interval in hidden way saved 37days in demo against check.

	ICP	Cost/cow/lactation	Milk	Income	Net Income	BC Ratio
Check(FP)	431	43100	2800	112000	68900	2.6
Demo(Vaginal Sponge)	388	38800	2800	112000	73200	2.9



Lowest inter-calving period of 388 days observed for demo against 431 days of check. So B;C ratio also altered from 2.6 to 2.9 by inducing estrous.

Justification for shortfall if any:
Feedback from farmers: Good for adoption. Difficult in Rainy season .Always need of technical person
Feedback of the Scientist: Chances for mild vaginitis
Extension activities on the FLD: Training, demonstration
(Field days, Farmers training, media coverage, training to Extension Functionaries)

2022-23

1. **Demonstration of ICM practices in organic farming of traditional rice varieties for higher yield**

Crop	:	Rice
Thematic area	:	Crop Management

Technology demonstrated	:	Demonstration of ICM practices in organic farming of traditional rice varieties for higher yield
Season and year	:	2022-2023
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	5
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	1
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Without much of knowledge on the organic inputs for traditional rice cultivation which is the need of hour. Generally traditional rice are less in yielding potential but demand from consumer side is more for organically grown traditional rice. Farmers are very much convinced to utilize the organic inputs *viz., azolla; azospirillum; bacillus; sunnhemp* green manuring; for raising the traditional rice to tap the yield advantage.
Feedback of the Scientist	:	Farmers in Thiruvarur district are not much aware of the organic traditional rice cultivation. Once in a year that to in samba season farmers raising only one crop (rice). Bio-fertilizers, green manure and Farm Yard Manure (FYM) are the important inputs in improving the rice ecosystem to meet the criteria of organic cultivation.
Extension activities on the FLD	:	Nil

Details	Check	Demo
Yield (Q/ha)	32.23	43.05
Gross cost (Rs/ha)	40000	47000
Gross return (Rs/ha)	112805	150675
Net return(Rs/ha)	72805	103675
BCR	2.82	3.21

2.Demonstration of CSR-BIO for enhancing productivity of Rice var. TRY 5 in Salt-affected Soils of Thiruvarur district

Crop	:	Rice
Thematic area	:	Integrated Crop Management in Salt affected soils
Technology demonstrated	:	**Demonstration of CSR-BIO for enhancing productivity of Rice var. TRY 5 in Salt-affected Soils of Thiruvarur district**

Season and year	:	Kharif, 2022
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	4
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Rice variety TRY 5 performed well under saline soil conditions with the application of CSR BIO
Feedback of the Scientist	:	Rice variety TRY 5 is highly suitable for Thiruvarur district under saline soil as well as non saline soil. The farmers are interested to grow in the forthcoming season.
Extension activities on the FLD	:	trainings and field day conducted

	Demo (TRY 5)	Check (TRY 2)
Yield (Q/ha)	54.8	49.25
Gross cost (Rs/ha)	68950	66650
Gross return (Rs/ha)	118094	106134
Net return(Rs/ha)	49144	39484
BCR	1.71	1.59

3.Demonstration of Ecological Engineering Approaches for Pest and Disease Management in Rice

Crop	:	Rice
Thematic area	:	Crop protection
Technology demonstrated	:	Demonstration of Ecological Engineering Approaches for Pest and Disease Management in Rice
Season and year	:	Kharif 2022-2023
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Eco friendly management for paddy pest and disease would reduces the damage slowly.

Feedback of the Scientist	:	The farmer are satisfied with the technology. But, they are in need of immediate control for pest and diseases
Extension activities on the FLD	:	Training on Ecological Engineering Approaches for Pest and Disease Management in Rice was conducted at Kankodutha vanigam on 08.08.2022 for 62 farmers and on 21.12.2022 at Elilur for 15 farmers

Details	Check	Demo
Yield (Q/ha)	5.51	6.02
Gross cost (Rs/ha)	60350	57875
Gross return (Rs/ha)	80136	88171
Net return(Rs/ha)	19786	29296
BCR	1.33	1.52

4.Demonstration of rice fallow blackgram variety (ADT-7) in Cauvery Delta Zone

Crop	:	Black gram
Thematic area	:	Crop production
Technology demonstrated	:	**Demonstration of rice fallow blackgram variety (ADT-7) in Cauvery Delta Zone**
Season and year	:	Kharif 2022-2023
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	For the past 20 years no varieties under the ADT series for cultivation in the Cauvery Delta for seed replacement to avail the yield advantage in newly released varieties. This ADT 7 blackgram with moderate resistance to pests will be boon to the pulse growing farmers in Thiruvarur district.
Feedback of the Scientist	:	ADT 7 black gram performance is highly commendable in all the 10 locations. The clay type of soil in the Cauvery Delta zone offers immense scope for inclusion in both rice fallow/follow pulses. The farmers are very much interested in cultivating this variety instead of ADT-3,ADT-5 and VBN-8 to VBN-11 varieties.

Extension activities on the FLD	:	One Field day conducted on 12.07.2022 at Mahadevapattinam village in Mannargudi block

Details	Check	Demo
Yield (Q/ha)	6.21	7.42
Gross cost (Rs/ha)	25000	26000
Gross return (Rs/ha)	49680	59360
Net return(Rs/ha)	24680	33360
BCR	1.99	2.28

5.Demonstration of green gram variety (VBN-5) in Cauvery Delta Zone

Crop	:	Green gram
Thematic area	:	Crop production
Technology demonstrated	:	**Demonstration of green gram variety (VBN-5) in Cauvery Delta Zone**
Season and year	:	Kharif 2022-2023
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Green gram VBN-5 with typical leaf character very well performs and suited to the rice fallow and follow ecosystems in Nannilam taluks. Moreover the grain size is small which will fetch more price in the market. Hence, farmers are interested to raise the same variety in the succeeding years.
Feedback of the Scientist	:	Green gram VBN-5 performance is highly commendable in all the 10 locations. The clay type of soil in the Cauvery Delta zone offers immense scope for inclusion in both rice fallow/follow pulses. The farmers are very much interested in cultivating this variety instead of ADT-3 and CO-8 during.
Extension activities on the FLD	:	One off campus training conducted on 12.07.2022 at Manali village in Nannilam block

Details	Check	Demo
Yield (Q/ha)	5.56	6.21
Gross cost (Rs/ha)	25000	26000

Gross return (Rs/ha)	66720	74520
Net return(Rs/ha)	41720	48520
BCR	2.67	2.87

6.Demonstration of super grain bag to store pulses

1.	Crop	Pulses
2.	Thematic area	Post harvest management
3.	Technology demonstrated	**Demonstration of super grain bag to store pulses**
4.	Season and year	All season
5.	Farming situation	
6.	Source of fund	ICAR
7.	No of locations (Villages):	10
8.	No. of demonstrations (replications/farmers/beneficiaries):	10 Replications 2 times
9.		

Date	Title	No
02.08.22	Demonstration of storage bag for pest control and Value addition of Agricultural and horticultural crops Vadaveri	34
04.08.22	Demonstration of Storage bag for pest control Edamelayur	15
06.09.22	Pulse value addition and distribution of storage bag Neduncherry	20
02.12.22	FLD Storage bag Thiruvelimalalai kudavasal	50
19.12.2022	Training on packaging and labeling	20
		139

10.	No of SC/ST Farmers and women farmers:	4
11.	Area proposed (ha):-	-
12.	Actual area (ha): -	
13.	Justification for shortfall if any:	Not applicable
14.	Feedback from farmers:	Storage bags are best technology and the there is no pest attack for more than six months. it was informed that there is always regular expenses for the labour in drying the crop once a month to prevent pest attack .
15.	Feedback of the Scientist	Best technology and can be dessiminated.

		The purchase and availability of these bags is to be given more choice.
16.	Extension activities on the FLD:	Paper news 2 Aug 5,pamphlet You tube video was wide distributed in all whatsapp groups

Efficiency parameters

	Check	Demo
Yield kg after Storage bag treatment in four months	96	100
Gross cost (Rs/Kg)	6240	6500
Net return(Rs/Kg)	6720	7300
BCR	2.08	2.12

Mean no of live beetles /kg of seed

Treatment	1 month	2 month	3month	4 month
Check	10	45	200	500
Demo	0	0	0	0

7.Demonstration of Grafted brinjal in Thiruvarur district

Crop	:	Brinjal
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	**Demonstration of Grafted brinjal (*Solanam melongena* L.) PLR-2 variety in Thiruvarur district**
Season and year	:	Kharif,2022-23
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Often brinjal fetched good price in the market and hence farmers were fond of brinjal variety. They felt that grafted brinjal had added advantage of prolonged duration up to two years and higher yield per plant. Because of this prolonged duration when compared to other normal

		varieties the cultivation practices got reduced and ultimately it reduced cost of cultivation. However, they felt that they had to frequently cut off the branches of 'sundaikkai' to maintain the crop. In addition they felt that the grafted brinjal and sundaikai got detached while planting in the main field.
Feedback of the Scientist	:	The Tamil Nadu Agriculture University (TNAU) released a new grafted technology in brinjal for increasing the yield in the crop. The brinjal plant is being grafted with 'sundaikai,' which doubles the yield. The grafting technology brought about multiple advantages. Primarily, it resulted in extension of the life of the brinjal plant. From six months, its life got extended to one year ensuring yield round the year. Secondly, the yield per plant doubled from 5 kg to 10 kg. Most importantly, the crop was protected from pest attack and diseases. "The abundant availability of 'sundaikai' is another advantage of the grafting process,". Sundaikai is free from any pest attack or disease
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	One vocational training on Protected cultivation technology in vegetable crops was conducted for three days One Field Day on Demonstration of Grafted brinjal (*Solanam melongena* L.) PLR-2 variety in Thiruvarur district was organized at Mahadevapattinal village of Mannargudi block, Thiruvarur.

	Check	Demo
Yield (Q/ha)	177	223
Gross cost (Rs/ha)	7,61,100	9,15,900
Net return (Rs/ha)	4,45,100	5,99,900
BCR	2.40	3.03

8.Demonstration of Guava (*Psidium guajava)* variety Arka Kiran in Thiruvarur district

Crop	:	Guava
Thematic area	:	Varietal Demonstration

Technology demonstrated	:	**Demonstration of Guava (** *Psidium guajava)* **variety Arka Kiran in Thiruvarur district**
Season and year	:	Kharif,2022-23
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	On going
Feedback of the Scientist	:	It is a pink pulp variety with average fruit weight of 200-220g with medium soft seeds (9 kg/cm^2). Fruits have TSS of 11-12^0 brix and lycopene content of 7.14 mg/100g. Crop will come to harvest after two years of planting. Economic yield starts after five years with average fruit yield of 20 t/acre in a spacing of 4m x 3m.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	-

9.Demonstration of Kaveri poupulu Banana variety in Thiruvarur district

Crop	:	Banana
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	**Demonstration of Kaveri poupulu Banana variety in Thiruvarur district**
Season and year	:	Kharif,2022-23
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil

Feedback from farmers	:	On going
Feedback of the Scientist	:	It is a plantain type variety like Nendren banana. This variety was performed well under Tamil Nadu condition with moderate climatic condition. It is an introduced variety. Medium plant stature.Yield potential 200q/ha with the crop duration of 480-500 days.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	-

10.Demonstration of Co 5 Coriander variety in Thiruvarur District

Crop	:	Coriander
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	**Demonstration of Co 5 Coriander variety in Thiruvarur District**
Season and year	:	Kharif,2022-23
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	1
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Coriander could be harvested on 35 days after sowing for leafy purpose. The leaves are moderately large and attractive green in colour. The smell of this variety was also pleasing and there was huge demand for this variety.
Feedback of the Scientist	:	It is a selection from ermplasm. This is suitable for cultivation in Kharif and Rabi seasons. The duration is 35 – 40 days for green leaf harvest. The average green leaf or herbage yield is 4.7 t/ha. It has essential oils like other varieties and linalool content is higher than CO (CR) 4.

Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	One vocational training on Protected cultivation technology in vegetable crops was conducted for three days One Field Day on **Demonstration of Co 5 Coriander variety in Thiruvarur District** was organized at Mahadevapattinal village of Mannargudi block, Thiruvarur.

	Check	Demo
Yield (Q/ha)	30.60	41.70
Gross cost (Rs/ha)	70380	95910
Net return (Rs/ha)	38880	64410
BCR	2.23	3.04

11.Demonstration of IPM practices against Tapioca mealybug

Crop	:	Coriander
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	Demonstration of IPM practices against Tapioca mealybug
Season and year	:	Kharif,2022-23
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	4
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	1
Area proposed (ha):	:	1
Actual area (ha)	:	1
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Using parasitoids to control tapioca mealybug is the best option
Feedback of the Scientist	:	Releasing of parasitoids would reduces the insectside load and gave good control. .
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Two trainings were conducted Field day conducted at Mahadevapattinam village

Result:

Particulars	Number of mealybug colonies/plant	Per cent resetting	Yield (t/ha)	Economics (Rs/ha)			
				Gross income	Gross cost	Net return	BCR
Demo	1.08	5.60	40.84	285880	94000	191880	1:3.04
Farmer's practice	5.10	18.40	33.78	236460	95800	140660	1:2.47

12.Demonstration of wild Boar repellent in Tapioca: Ongoing

13.Demonstration on INM practices for higher yield in Coconut

Crop	:	Coconut
Thematic area	:	Crop Management
Technology demonstrated	:	Demonstration of INM practices for higher yield in coconut
Season and year	:	2022-2023
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	5
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	1
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Aftermath of *Gaja* cyclone incidence the performance of coconut in terms of yield was in declining trend. Advocating of Integrated Nutrient Management (INM) in coconut *viz*., inorganic, organic and root feeding of TNAU coconut tonic (Consisting of micronutrients and growth regulators) once in six months interval was very much useful to regain the potential yield of coconut from each harvest.
Feedback of the Scientist	:	Farmers are not aware of the N: P_2O_5 and K_2O nutrient requirement especially importance of micronutrients like boron (B) role in the following *viz*., reduced button shedding; Increased chlorophyll content and greenness of leaves; Improved photosynthetic efficiency of leaves; Increased number and size of nuts; Increases nut yield up to 20 per cent; Increases longevity and vigour of the palm; Imparts resistance to pests, diseases and Improves the environmental stresses. All the above mentioned attributes improves the performance of coconut in eastern coast of Cauvery Delta Zone.

Extension activities on the FLD	:	Nil

Details	Check	Demo
Yield (nuts/ha)	18000	37400
Gross cost (Rs/ha)	73000	133000
Gross return (Rs/ha)	252000	523600
Net return(Rs/ha)	179000	390600
BCR	3.45	3.94

14.Demonstration of Coconut Red Palm Weevil management

Crop	:	Coconut
Thematic area	:	Crop protection
Technology demonstrated	:	Demonstration of Coconut Red Palm Weevil management
Season and year	:	Throughout the Year
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	10
No. of demonstrations (replications/farmers/ beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Management of coconut red palm weevil through ferolure is highly useful.
Feedback of the Scientist	:	The farmer are satisfied with the technology. Nowadays this technology is widely used by the coconut grower
Extension activities on the FLD	:	• Special lecture on Coconut Red Palm Weevil management was delivered during the Off campus training on ICM in coconut was conducted at Nallambur on 19.07.2022 for 30 farmers • Training cum demo on Management of Coconut Red palm weevil was conducted at Harichadrapuram on 02.08.2022 for 29 farmers • World Coconut Day was celebrated on 02.09.2022- Special lecture on Coconut Red Palm Weevil management was delivered to the 17 farmers

		• Lecture on Coconut Red Palm Weevil management was delivered during the off campus training on ICM in Coconut conducted at Sundarakottai on 21.11.2022 for 25 farmers. • Training cum Demonstration of Coconut redpalm weevil was conducted at Sundrakottai on 20.12.2022 for 16 farmers

Details	Check	Demo
Yield (Q/ha)	10560	12558
Gross cost (Rs/ha)	24625	23375
Gross return (Rs/ha)	52800	62790
Net return(Rs/ha)	28175	39415
BCR	2.14	2.69

15.Demonstration of Rapid Vermicompost production technology

Crop	:	Rice
Thematic area	:	Crop Residue Management
Technology demonstrated	:	**Demonstration of Rapid Vermicompost production technology** Production of vermicompost by silpalin vermibags and enrichment of vermicompost by beneficial microorganisms for enhanced nutrient
Season and year	:	Rabi, 2022-23
Farming situation	:	Crop residues are parts of the plants left in the field after crops have been harvested and threshed. Burning of crop residues would emit 0.05% of the total amount of greenhouse gases. Moreover, burning leads to loss of huge biomass, i.e. organic carbon, plant nutrients, and causing adverse effect on soil properties as well as soil flora and fauna. Through silpaulin vermibag and enrichment methos, nutrient rich organic manures will be produced from the crop residues without environment pollution.
Source of fund	:	ICAR
No of locations (Villages):	:	5
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	10 tonnes
Actual area (ha)	:	10 tonnes
Justification for shortfall if any:	:	Nil

Feedback from farmers	:	Enriched vermicompost production from the crop residues and animal manures providing a high income from the waste. Further it provides nutrients rich organic manures with low cost.
Feedback of the Scientist	:	Enriched vermicomposting of crop residues through vermibags and microbial inoculants provides nutrients rich organic manures with low cost. It avoids atmospheric and soil pollution due to improper disposal of wastes. It may offers a new venture as entrepreneurship in agriculture and allied sectors.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	training on Vermicomposting and enrichment of vermicompost and recycling of Wastes are conducted

Details	Check (Natural decomposition as FYM)	Demo (Enriched vermicompost production)
Quantity of Compost generated (q/ton)	4.0	4.0
C/N ratio of compost after 45 days	32	21
Gross cost (Rs./ton of waste)	480	3646
Gross cost (Rs./6 ton ton of waste/ year)	4280	10826
Net Returns (Rs./ton of waste)	0	1154
Net Returns (Rs./6 ton ton of waste/ year)	3720	17974
BCR	-	1.32
BCR (for 6 ton ton of waste/ year)	1.87	2.66

16.Demonstration of Enriched Biocompost preparation with TNAU Biomineralizer

Crop	:	Rice
Thematic area	:	Crop Residue Management
Technology demonstrated	:	**Demonstration of composting of paddy straw with TNAU Biomineraliser** Composting of crop residues by TNAU Biomineraliser
Season and year	:	Rabi, 2022-23
Farming situation	:	Crop residues are parts of the plants left in the field after crops have been harvested and threshed. Burning of crop residues would emit 0.05% of the total amount of greenhouse gases. Moreover, burning leads to loss of huge biomass, i.e. organic carbon, plant nutrients, and causing adverse effect on soil properties as well as soil flora and fauna.
Source of fund	:	ICAR
No of locations (Villages):	:	8

No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	10 tonnes
Actual area (ha)	:	10 tonnes
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Composting of paddy straw through TNAU Biomineralizers provides nutrients rich organic manures with low cost.
Feedback of the Scientist	:	Composting of paddy straw through TNAU Biomineralizers provides nutrients rich organic manures with low cost. It avoids atmospheric and soil pollution due to improper disposal of wastes.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	One off campus training on Recycling of Wastes by TNAU Biomineralizers was conducted

Details	Check	Demo
Quantity of Compost generated (q/ton)	4.0	4.0
C/N ratio of compost after 60 days	29	20
Gross cost (Rs/ha)	470	1246
Net return(Rs/ha)	0	2754
BCR	-	3.21

17.Demonstration of composting of rice straw wastes with NCOF Waste Decomposer

Crop	:	Rice
Thematic area	:	Crop Residue Management
Technology demonstrated	:	**Demonstration of composting of paddy straw with NCOF Waste Decomposer** NCOF Waste Decomposers in composting of Paddy straw
Season and year	:	Rabi, 2022-23
Farming situation	:	Crop residues are parts of the plants left in the field after crops have been harvested and threshed. Burning of rice straw would emit 0.05% of the total amount of greenhouse gases. Moreover, burning leads to loss of huge biomass, i.e. organic carbon, plant nutrients, and causing adverse effect on soil properties as well as soil flora and fauna.
Source of fund	:	ICAR
No of locations (Villages):	:	7
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	10 tonnes
Actual area (ha)	:	10 tonnes

Justification for shortfall if any:	:	Nil
Feedback from farmers	:	Composting of paddy straw through NCOF decomposers provides nutrients rich organic manures with low cost.
Feedback of the Scientist	:	Composting of paddy straw through NCOF decomposers provides nutrients rich organic manures with low cost. Mass multiplication of waste decomposer for any quantity of wastes is possible from a single bottle of NCOF waste decomposer.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	training on Recycling of Wastes by NCOF Waste Decomposer was conducted

Details	Check	Demo
Quantity of Compost generated (q/ton)	4.1	4.1
C/N ratio of compost after 60 days	32	23
Gross cost (Rs/ton)	280	1024
Net return(Rs/ton)	0	2744
BCR	-	3.68

18.Demonstrating the Efficiency of Whatsapp in dissemination of technologies on rice cultivation

Crop	:	Rice
Thematic area	:	Agricultural Extension-E-Extension Initiatives
Technology demonstrated	:	**Demonstrating the Efficiency of Whatsapp in dissemination of technologies on rice cultivation**
Season and year	:	Kharif 2021
Farming situation	:	Wet land based Paddy- Paddy-Pulses system
Source of fund	:	KVK-Main
No of locations (Villages):	:	'KVK Thiruvarur whatsapp group' was selected for the study
No. of demonstrations	:	Totally 30 farmers were selected from 'KVK Thiruvarur group. Messages with video, pictures and text messages related to rice cultivation was given through the whatsapp and data was collected after the season was over.
No of SC/ST Farmers and women farmers:	:	3 SC/ST farmers
Area proposed (ha):	:	Not applicable
Actual area (ha)	:	Not applicable
Justification for shortfall if any:	:	Not applicable
Feedback from farmers	:	Farmers told that this is a new experience for them and they were appreciate of the whatsapp platform through which they can get their problems solved without visiting any places.

Feedback of the Scientist	:	More data or information needed to be collected for the impact of whatsapp platform in transferring Agriculture/allied technologies to farmers.
Extension activities on the FLD	:	-

Details	Test Group (n=30)	Control Group* (n=30)
Mean Knowledge gain	37.80	29.30
Mean adoption of technologies	8.30	5.90
Mean cost saved	Rs. 6800	NA
Mean Yield	6500 Kg/ha	5700Kg /h
Mean Net Income	Rs.90,000	Rs. 64,000

NA- Not applicable

Mean Knowledge gain- Twenty questions related to rice cultivation was asked to both respondents of test and control group. Correct answers were given with two scores. Cumulative score was obtained and mean was worked out

Mean adoption -Responses about the adoption of ten important technologies on rice cultivation by both test and control group were collected which were given 2 score for adoption and 1 score for non adoption. The scores were cumulated and mean was worked out

Mean Communication Efficiency Index- This refers to the degree to which whatsapp has effectively communicated information to the participants. This has been measured by three domains namely content adequacy, understandability and Interactivity. These three domains were measured using the scoring of 3, 2 and 1 for high, medium and low for respective domains. Hence, a score of 9 will be the maximum to be obtained by a participant.

Mean Cost Saved: This is the figure arrived at by asking the respondents about how much was the cost saved due to rice production technologies that they have adopted which were given through Whatsapp

Mean yield: This refers to the increase in yield experienced by the respondents due to the adoption of improved rice production technologies delivered through Whatsapp

Mean Net income: This refers to the increase in income realised by the respondents after having adopted the improved rice production technologies delivered through Whatsapp

19. Demonstrating the Efficiency of "KVK on the Move" (Block Advisory Meet) as a platform to reach the unreached farmers

Crop	:	Applicable to all crop and Enterprises
Thematic area	:	Innovations in Agricultural Extension
Technology demonstrated	:	**Demonstrating the Efficiency of "KVK on the Move" (Block Advisory Meet) as a platform to reach the unreached farmers**
Season and year	:	Applicable to all crop and Enterprises -2021-22

Farming situation	:	The Corono virus pandemic has affected the activity of KVK in terms of its contact with farmers which are very essential for dissemination of technologies. Neither farmers could visit KVK due to restrictions which have been imposed nor could they enjoy the benefit of various extension programmes which the KVKs are mandated to do. In such a situation, in order to reach farmers the scientists in KVK, Needamangalam in Thiruvarur District has contemplated a novel approach of reaching the farmers in their respective blocks through a platform which has been named as "KVK on the Move", which mean the KVK is moving to the places where the farmers are dwelling and solving their field problems
Source of fund	:	ICAR
No of locations (Villages):	:	5 Conducted in all the 5 blocks of thiruvarur district which are located far away from kVK needamangalam
No. of demonstrations (	:	5
No of SC/ST Farmers and women farmers:	:	-
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	Nil
Feedback from farmers	:	The innovative approaches that could reach the unreached farmers. The block wise specific problems could be addressed in the door step of farmer's dwellings.
Feedback of the Scientist	:	To bridge the gap of farmers and extension personnel. The location specific problems can be addressed through this block advisories meet.
Extension activities on the FLD	:	-
Results	:	1. Pest and disease in rice, coconut and cotton were diagnosed and recommendations were given. 2. Queries related to Suitable varieties on rice, pulses and cotton for ensuing season were answered. 3. Queries related to mushroom cultivation, honey bee rearing and organic inputs preparation were addressed. 4. Promotion of integrated farming practices were addressed

20.Demonstrating the efficiency of Contact Farmers of KVK in Dissemination of Technologies

Crop	:	-
Thematic area	:	Agricultural Extension-E-Extension Initiatives

Technology demonstrated	:	**Demonstration of the Efficiency of contact farmers of KVK in Dissemination of Technologies**
Season and year	:	Rabi 2022
Farming situation	:	Wet land based Paddy- Paddy-Pulses system
Source of fund	:	KVK-Main
No of locations (Villages):	:	'KVK Thiruvarur whatsapp group' was selected for the study
No. of demonstrations	:	40 contact farmers were selected for this study
No of SC/ST Farmers and women farmers:	:	3 SC/ST farmers and 5 women farmers were included
Area proposed (ha):	:	Not applicable
Actual area (ha)	:	Not applicable
Justification for shortfall if any:	:	Not applicable
Feedback from farmers	:	The innovation on technological information cannot reach each one the farmers separately. To bridge the farmers and scientists, the contact farmers plays vital role in dissemination of agricultural technologies. The complex nature of technologies can easily be understood by the any farmers.
Feedback of the Scientist	:	Tools are to be developed to find out the real impact of the contact farmers in dissemination of agricultural technologies.
Extension activities on the FLD	:	The programme was published through paper, whatsapp group

Details	Test Group (n=40)	Control Group* (n=40)
Mean Knowledge gain	32.50	20.00
Mean adoption of technologies	25.00	15.00
Mean cost saved	Rs.5000	NA
Percentage increase in yield	12.50%	NA
Percentage increase in Income	15.00%	NA

NA-Not Applicable

Mean Knowledge gain- Twenty questions related to organic farming was asked to both respondents of test and control group. Correct answers were given with two scores. Cumulative score was obtained and mean was worked out

Mean adoption -Responses about the adoption of twenty important organic farming practices by both test and control group were collected which were given 2 score for adoption and 1 score for non adoption. The scores were cumulated and mean was worked out

Communicative Ability- This refers to the degree to which the mode of training impact on the cognitive and affective domains of participants. This was measured through three point continuum wherein 3, 2 and 1 scores were given for the High, Medium and low communicative ability. The scores were cumulated and mean was worked out

Intensity of Farmer to Farmer Communication- This refers to the degree of triggering of farmer to farmer communication by the contact farmers. A scoring procedure of 3,2 and 1 was assigned for high, medium and low intensity of Farmer to Farmer Communication

Mean Cost Saved: This is the figure arrived at by asking the respondents about how much was the cost saved due to attending organic farming training to contact farmers.

Percentage increase in yield: This refers to the percentage increase in yield experienced by the respondents on organic farming after having adopted important technologies delivered during the training

Percentage increase in income: This refers to the percentage increase in income realised by the respondents through training after having adopted important technologies related to organic farming.

21.Demonstration of coconut based value added products

<table>
<tr><td>1.</td><td>Crop</td><td colspan="3">Coconut</td></tr>
<tr><td>2.</td><td>Thematic area</td><td colspan="3">Post harvest management</td></tr>
<tr><td>3.</td><td>Technology demonstrated</td><td colspan="3">Demonstration of coconut based value added products</td></tr>
<tr><td>4.</td><td>Season and year</td><td colspan="3">All season</td></tr>
<tr><td>5.</td><td>Farming situation</td><td colspan="3">-</td></tr>
<tr><td>6.</td><td>Source of fund</td><td colspan="3">ICAR</td></tr>
<tr><td>7.</td><td>No of locations (Villages):</td><td colspan="3">10</td></tr>
<tr><td>8.</td><td>No. of demonstrations (replications/farmers/beneficiaries):</td><td colspan="3">5 Hands on trainng on Coconut value added products viz., Virgin coconut oil, Osmotic dehydrated coconut powder, Coconut shreds, Coconut chips, Coconut rice mix, Coconut chutney powder was given to the following trainees</td></tr>
<tr><td>9.</td><td colspan="4"><table>
<tr><td>16.06.2022</td><td>Coconut and greens value addition technology</td><td>18</td></tr>
<tr><td>25.08.2022</td><td>Preparation of value added products from coconut</td><td>38</td></tr>
<tr><td>02.06.22</td><td>Value added products from coconut(FLD) to kamalapuram ulavar urpathiyalar niruvanam Mela Parithiyur</td><td>30</td></tr>
<tr><td>03.08.22</td><td>World Coconut Day ICM in Coconut Training cum workshop on coconut cultivation pest management and value addition</td><td>100</td></tr>
<tr><td>28.10.22</td><td>FLD on Value added coconut products Veppankulam</td><td>21</td></tr>
</table></td></tr>
</table>

		207
10.	No of SC/ST Farmers and women farmers:	4
11.	Area proposed (ha):-	-
12.	Actual area (ha): -	
13.	Justification for shortfall if any:	Not applicable
14.	Feedback from farmers:	Though the technologies are simpler and easy, for production of value added products processing machineries are needed. The farmers request marketing and incubation facility.
15.	Feedback of the Scientist	The coconut farmers are not showing interest in value addition inspite of regular motivationand creating whatsapp group they do not show interest.
16.	Extension activities on the FLD:	Paper news 2 Aug 5,pamplet

05.08.22	விவசாயிகள் விளைவித்த பொருட்களை மதிப்பு கூட்டி சந்தை படுத்துதல் வேண்டும். முத்துபேட்டையில் தென்னை விவசாயிகளுக்கான கருத்தரங்கு-	தினமணி தினகரன்
6.5.23	தென்னையில் மதிப்பு கூட்டியா பொருட்கள்	தினகரன்

S.No	**Coconut products**	**Keeping Quality (days)**	Organoleptic score	Gross cost (Rs/Kg)	Net return(Rs/Kg)	BCR
1.	Virgin coconut oil	**90**	9	500	1200	1:2.4
2.	Osmotic dehydrated coconut chips	**150**	9	75	900	1:12
3.	Coconut shreds	**150**	9	75	300	1:4
4.	Coconut chips	**120**	9	75	300	1:4
5.	Coconut chutney powder	**30**	9	75	250	1:3.3

22.Demonstration of Immune Boosting Herbal Plants in Households

1	Crop	**Herbal Plants**

2	Thematic area	Health/Nutrition
3	Technology demonstrated	**Demonstration of Immune Boosting Herbal Plants in Households**
4	Season and year:-	-
5	Farming situation	-
6	Source of fund	-
7	No of locations (Villages):	05
8	No. of demonstrations (replications/farmers/beneficiaries):	05
9	No of SC/ST Farmers and women farmers:	01
10	Area proposed (ha):	0.5 ha
11	Actual area (ha):	0.4 ha
12	Justification for shortfall if any	based on the area availability of the household
13	Feedback from farmers:	Herbal plants and its uses are more informative The interest and consumption of herbal medicines are increasing as mainly food when compared to allopathic medicines. Simultaneously, there has been an increase in the demand for medicinal plants. Herbal gardens serve as repository of medicinal plants, where the people can come and learn about the cultivation, harvesting and propagation of such crops. Hence a booklet and pamphlet was released and the details was given
14	Feedback of the Scientist	The networking of herbal garden through online database will gives centralized information on all the available herbal plants information in India to the common people. Though we recommend AYUSH prescription the common man needs the information from only doctors and Doctors do not encourage
15	Extension activities on the FLD:	Focus of selecting herbs are been made on the basis of treating 10 major organ system of the body and the concerned herb that was distributed are presented in Table 1.These twenty herbs was distributed to five different people. Two schools was established with this nutrition garden. Trainings on use of these herbs, forms of usage ,dosage level,when to use how to propgate all was given in the trainings

Date	Title	Place	No of farmers
06.07.2022	Training on Herbal garden	KVK	36

17.09.2022	Herbal plants and its role on health	KVK	118
19.07.22	Training on Herbal garden - Gender and nutrition survey	Sithmalli village	20
02.09.22	Demo cum lecture on dehydration products Immune Boosting Herbal plants	Parappanamedu	20
18.11.22	Training on cultivation of herbal garden and roof top garden	Nemmali	40

Radio/TV prog/ News paper

Use of Herbal plants	Karaikal FM AIR	03.08.22
Herbal garden	Doordarshan TV	22.08.23
Paper news		
Developed Demonstration unit on herbal garden		
மூலிகை தோட்டம் அமைத்தல் https://dailythanthi.com/News/State/agriculture/scientist-857299	Dinathanthi	14.12.22
சிறு உபாதைகளை குணமாக்க மூலிகை தோட்டம்	தினகரன்	15.12.22
Pamplet on Herbal garden was distributed		

Success Enterpreneur	Enterpreneur Mr. Amarnath M/S Vidiyuth soaps and chemicals 229/1 E.B.Colony 4th street Thiruvarur Is preparing herbal soaps like aloevera, kuppameni,turmeric,vetiveru etc

Table1: Herbs that benefits different organs

HERBS FOR EVERY SYSTEM

1.SKELETAL SYSTEM	MUDAKATHAN,LEMONGRASS
2.REPIRATORY SYSTEM	ADATHODAI,TULASI
3.ENDOCRINE SYSTEM	INSULIN,KEEZHANELLI
4.NERVOUS SYSTEM	KARPOORAVALLI,SEEMAI SAMANTHI
5.CARDIOVASCULAR SYSTEM	PUDINA,THIRUNEETRUPACHILAI
6.INTEGUEMENTARY SYSTEM	SOTRUKATRAALAI,ATHIMADURAM
7.DIGESTIVE SYSTEM	VETRILAI,INJI
8.REPRODUCTIVE SYSTEM	SHATAVARI,AMUKKARAN
9.UROGENITAL SYSTEM	RANAKALLI,SIRUNERUNJIL
10.MUSCULAR SYSTEM	RAGI,BLACK TURMERIC

Parameters	Before FLD	After FLD
Per capita consumption Days/Month	3-5	15-20
Morbidity status of the family	Fever ,cold ,stomach related problems two months once	Fever ,cold ,stomach related problems very rarely
Doctor + medicine expenses Rs /3 months	Rs 500	Rs 100

23.Demonstration On Milk value added products and Enhance the Income Level Of Dairy Women Farmers as EDP mode

	Crop	Milk
	Thematic area	Post harvest management
	Technology demonstrated	Demonstration On Milk value added products and Enhance the Income Level Of Dairy Women Farmers as EDP mode
	Season and year	All season
	Farming situation	-
	Source of fund	ICAR
	No of locations (Villages):	10

	No. of demonstrations (replications/farmers/beneficiaries)				
	27.07.2022	EDP-FLD Preparation of value added products from milk	5	37	42
	21.02.23 To 25.02.23	Milk value addition -vocational training			25
	No of SC/ST Farmers and women farmers:	4			
	Area proposed (ha):-	-			
	Actual area (ha): -				
	Justification for shortfall if any:	Not applicable			
	Feedback from farmers:	Though the technologies are simpler and easy, for production of value added products processing machineries are needed. The farmers request marketing and incubation facility.			
	Feedback of the Scientist	The benefeciaries list was obtained from FPO and cooperative society. The cooperative society has to be tied up for making it as an EDP program . The marketing is a big challenge .			
	Extension activities on the FLD:	Paper news on Ventures in milk value addition thinaboomi 28.7.22 pamplet			

24.Popularization of ProSync – NC (Nano cream) for synchronization in Dairy cattle

1. Technology-Popularization of ProSync – NC (Nano cream) for synchronization in Dairy cattle

Crop: Cow

Thematic area:Animal reproduction

Technology demonstrated: Popularization of ProSync – NC (Nano cream) for synchronization in Dairy cattle

Season and year:2022-23

Farming situation:Wetland

Source of fund:Main

No of locations (Villages):10

No. of demonstrations (replications/farmers/beneficiaries):10

No of SC/ST Farmers and women farmers:3

Area proposed (ha):10 cows

Actual area (ha)-

Result:
There is no any change in milk yield in between demo and check. But calving interval in hidden way saved 37days in demo against check.

	ICP	Cost/cow/ lactation	Milk(kg)	Income	Net Income	B:C raio
FP(Control)	440	44000	2800	112000	68000	2.6
Prosync NC(Check)	403	40300	2800	112000	71700	2.8

Lowest inter-calving period of 403 days observed for demo against 440 days of check. So B;C ratio also altered from 2.6 to 2.8 by inducing estrous.

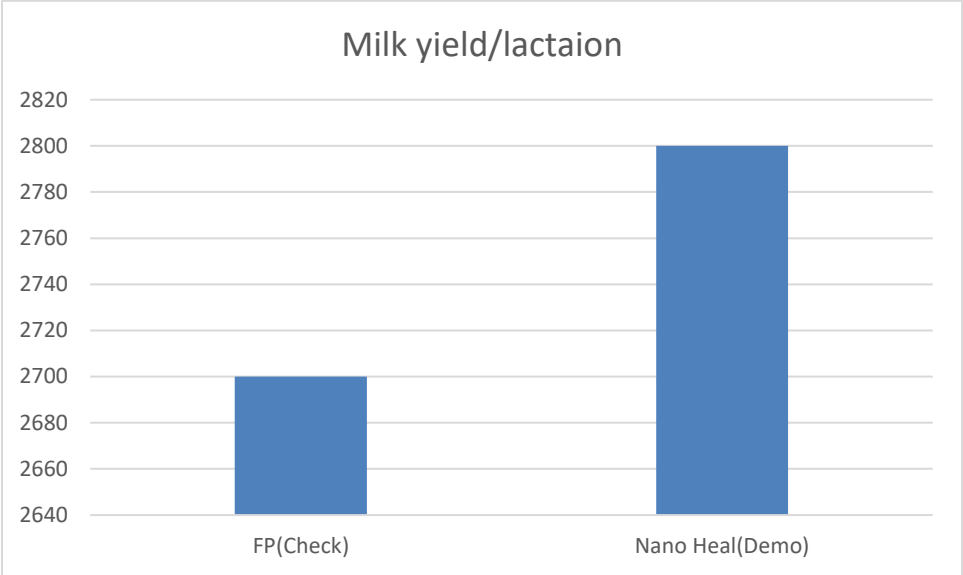
Justification for shortfall if any:
Feedback from farmers: Good for adoption. Difficult in Rainy season . Estrous signs intensity low, 25 % of signs are visible
Feedback of the Scientist: Still make better sticking
Extension activities on the FLD: Training, demonstration
(Field days, Farmers training, media coverage, training to Extension Functionaries)

25.Assessment of wound healing in farm animals

Crop: Cow
Thematic area: Disease prevention
Technology Demonstration of wound healing in farm animals
Season and year:2022-2
Farming situation:Wetland
Source of fund:Main
No of locations (Villages):10
No. of demonstrations (replications/farmers/beneficiaries):10
No of SC/ST Farmers and women farmers:4
Area proposed (ha):10 cows
Actual area (ha)-

Result:
Wounded cows drastically reduce milk yield due to pain. If not treated properly, wound persist for long time result in shrinkage of alveolar tissue and loos of milk in that same lactation. Here farmers used only turmeric water and neem leaves due to negligence and lack of veterinary assistance. Average of 100 litters of milk lost in hidden way due to maggot wound.

	Milk yield (Lt)	Cost (Rs.)	Gross income(Rs.)	Net profit(Rs.)
FP(Check)	2700	40000	81000	41000
Nano Heal(Demo)	2800	40000	114000	74000



Justification for shortfall if any:

Feedback from farmers: Good for adoption. Strong colour may be added

Feedback of the Scientist: good

Extension activities on the FLD: Training, demonstration

26.Demonstration of Sex sorted semen in dairy cows

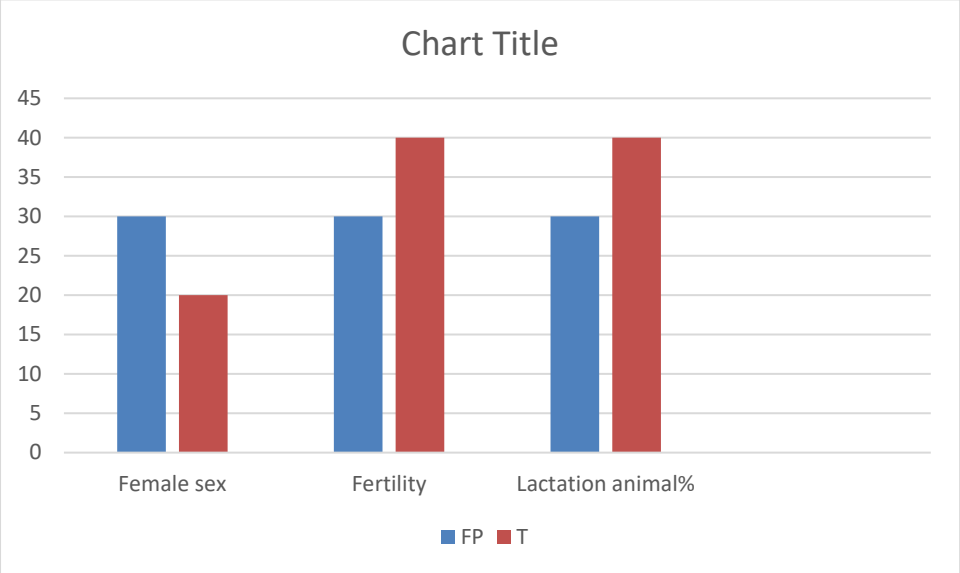
Crop: Cow
Thematic area: Animal Reproduction
Technology *Demonstration of Sex sorted semen in dairy cows*
Season and year:2022-23
Farming situation: Wetland
Source of fund: Main
No of locations (Villages):10
No. of demonstrations (replications/farmers/beneficiaries):10
No of SC/ST Farmers and women farmers:4
Area proposed (ha):10 cows
Actual area (ha)-

Result:
Sexed s3emen resulted in 100 per cent birth of female calves. It improves no of female birth 30 % to total insemination where as normal insemination resulted in 20% female birth to total insemination with sexed semen.

	Conception	No of Female birth	No of Male birth
FP	4	2	2
T	3	3	0

Although sexed semen improved felae birth, overall reduced 10 % fertility in turn resulting in reduction of 10 % in lactating animal.

	Female sex	Fertility	Lactation animal%
FP(Check)	30	30	30
Sexed Semen(Demo)	20	40	40



Justification for shortfall if any:
Feedback from farmers: Poor fertility, costly
Feedback of the Scientist:Poor fertility, Improvement in fertility is required
Extension activities on the FLD: Training, demonstration
(Field days, Farmers training, media coverage, training to Extension Functionaries) Training, and demonstration done

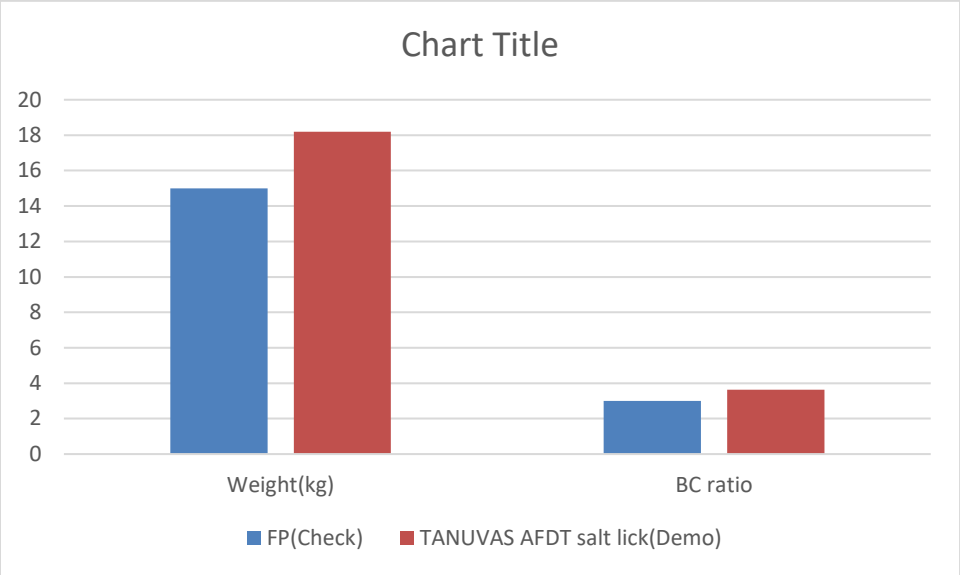
27.Role of TANUVAS AFLD salt lick on the performance of calves, sheep & goat

1. Thematic area: Animal Nutrition
2. Title: Role of TANUVAS AFLD salt lick on the performance of calves, sheep and goat

3. Scientists involved: Dr.M.Sabapathi
4. Details of farming situation:Wetland ecosystem
5. Problem definition / description: (one paragraph): Farmers did not give mineral mix to animals. Mineral deficiency leads to stunted growth in young; poor in growth parameters and in reproductive efficiency in adult.

6. Technology Assessed: (give full details of technology as well as farmers practice):
TANUVAS AFLD salt lick produced by TANUVAS, 2019 were issued and fed to growing goats. Weight gain and growth parameters studied
7. Critical inputs given: (along with quantity as well as value)
One TANUVAS AFTD Salt lick for every 4 goats
8. Results:
AFTD salt lick played vital role in growth rate and weight gain .

	Weight (kg)	Gross income	Total cost	Net Profit	BC ratio
FP(Check)	15	4500	1500	3000	3
TANUVAS AFDT salt lick(Demo)	18.2	5460	1500	3960	3.64



Experimented for 6 month period and demo played vital role to improve body weight to 18.2 against farmers practice of 15kg. But grazing framers expressed that easy to use salt lick.
Justification for shortfall if any:
Feedback from farmers: Good
Feedback of the Scientist:Brick is breakable by light force
Extension activities on the FLD: Training, demonstration

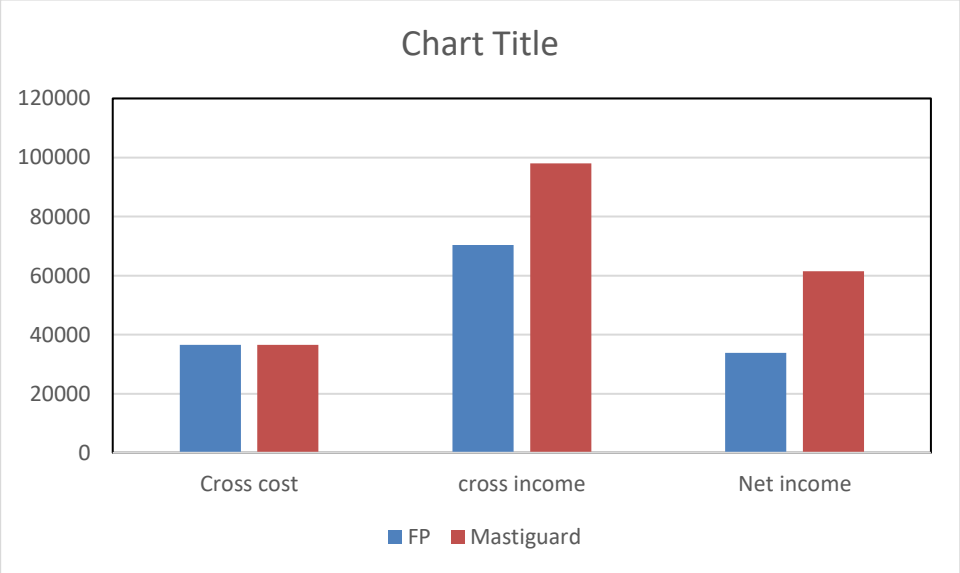
28.Teat protect for the prevention of sub clinical mastitis Thiruvarur district calves, sheep & goat

Crop	:	Dairy productyion
Thematic area	:	Disease management
Technology demonstrated	:	Teat protect for the prevention of sub clinical mastitis Thiruvarur district calves, sheep & goat
Season and year	:	Rabi, 2021-2022
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	5
No. of demonstrations (replications/farmers/beneficiaries)	:	10
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	-
Feedback from farmers	:	Easy for practice
Feedback of the Scientist	:	Farmers aware of Mastitis and its treatment but lack of knowledge for preventive measures

Extension activities on the FLD	:	On campus training on dairy cattle and Mastitis prevention, Off campus training on Popularization and Demonstration of Masti - Guard for detection and prevention of Mastitis in cross bred Dairy Cattle

Details	Check	Demo
Mastitis incident/lactation (%)	4	0
Milk Yield/cow/lactation (Lit)	1758	2450
Cost/lactation(Rs.)	36500	36500
Gross return / cow/lactation (Rs)	70,320	98,000
Net returncow/lactation (Rs)	33,820	61,500
BCR	1.93	2.69

Mastiguard used in two ways TANUCHEK SCCK is used to diagnose the mastitis in subclinical level itself so the further damage of alveolar tissues was prevented and milk production restored for entire lactation period. In another way use of TEAT PROTECT spray drastically reduced the incidence of mastitis from 4 to 0 thereby improved the milk production from 1758 litters to 2450 litters per lactation and 28% improvement in milk yield was achieved per lactation/cow.



This improvement in milk production influence the major role to improve the net income from Rs. 33820 of farmers practice to Rs.40,000 in demo group.

Extension Studies

Impact studies, survey and other extension studies

At the end of each impact study, provide few bullet points on salient findings of the study (A separate chapter will be included in the Annual report for extension studies)

Technology Week Celebrations

Types of Activities	No. ofActivities	Number ofParticipants	Related crop/livestock technology
Gosthies			
Lectures organized			
Exhibition			
Film show			
Fair			
Farm Visit			
Diagnostic Practical			
Distribution of Literature (No.)			
Distribution of Seed (q)			
Distribution of Planting materials (No.)			
Bio Product distribution (Kg)			
Bio Fertilizers (q)			
Distribution of fingerlings			
Distribution of Livestock specimen (No.)			
Total number of farmers visited the technology week			
Others			

Training/workshops/seminars etc. attended by KVK staff

	Name of the staff	Title	Dates	Duration	Organized by
1	Dr.V.Karunakaran	NPTEL-AICTE Faculty Development Programme-Online course	February 2022- April 2022	One month	IIT Kharagpur
2	Dr.V.Karunakaran	The Agronomy Convention 2022	29.04.2022	One day	Dept. of Agronomy, TNAU, Coimbatore
3	Dr.V.Karunakaran	TNIAMP Training	10.05.2022	One day	WTC, TNAU Coimbatore
4	Dr.V.Karunakaran	Enhanced Production of Enriched organic manure for sustainable soil health	24.08.2022	One day	Department of Agronomy, AC&RI-Madurai
5	Dr.V.Karunakaran	Recent Technologies in Agriculture with special focus to Natural Farming	21.11.2022-23.11.2022	Two days	DoEE, TNAU, Coimbatore
6	Dr.V.Karunakaran	Emerging trends and new vistas in applied sciences-2022	31.12.2022	One day	Nanda College of Pharmacy, Erode
7	Dr.M.Selvamurugan	Online Training on Production Protocol for Biofertilizers	03.01.2022 07.01.2022	Two days	NIPHM, Hyderabad
8	Dr.M.Selvamurugan	Training on Project Implementation, Procurement Procedures, Environmental Safety and Model Villages	09.05.2022	One day	Water Technology Centre, TNAU, Coimbatore
9	Dr.M.Selvamurugan	Training on "Enhanced production of enriched organic manure for sustainable soil health"	24.08.2022	One day	Agricultural College and Research Institute, TNAU, Madurai
10	Dr.M.Selvamurugan	6th National Conference on Salinity Management for Land Degradation Neutrality and Livelihood Security under Changing Climate	11.10.2022 13.10.2022	Two days	Indian Society of Soil Salinity and Water Quality, Karnal, Haryana & Anbil Dharmalingam Agricultural College and Research Institute, TNAU, Trichy

11	Dr.M.Selvamurugan	56th Annual Convention of Indian Society of Agricultural Engineers on Agricultural Engineering Innovation for Global Food Security and International Symposium on India @ 2047: Agricultural Engineering Perspective	09.11.2022 11.11.2022	Two days	Agricultural Engineering College and Research Institute, TNAU, Coimbatore & Water Technology Centre, TNAU, Coimbatore
12	Dr.M.Selvamurugan	State Level Refresher Training on Recent Technologies in Agriculture with Special Focus on Natural Farming	21.11.2022 23.11.2022	Two days	Directorate of Extension Education, TNAU, Coimbatore
13	Dr.M.Selvamurugan	Two days Workshop on Volatilomics – A Tool for Understanding Plant-Microbe Interactions	29.11.20222 30.11.2022	Two days	Department of Agricultural Microbiology, DNRM, TNAU, Coimbatore
14	Dr.M.Selvamurugan	2 Hour Online Webinar on Writing Review Articles	28.12.2022	One day	Lily of the Vallly, Skill Development Centre, India
15	Dr.M.Selvamurugan	First National Conference on Emerging Trends and New Vistas in Applied Sciences (NCETNVAS 2022)	31.12.2022	One day	Nandha College of Pharmacy, Erode
16	Dr.V.Radhakrishnan	Biennial National KVK Conference at Dr. YSR University of Horticulture and Forestry, Nauni, Solan, Himachal Pradesh – 173 230	01.06.2022 02.06.2022	Two days	Solan, Himachal Pradesh

17	Dr.V.Radhakrishnan	State level Refresher training on Recent Technologies in agriculture with special focus on Natural Farming	08.11.2022-10.11.2022	Two days	DoEE, TNAU, Coimbatore
18	Dr.S.Kamalasunsrai	State level Refresher training on Recent Technologies in agriculture with special focus on Natural Farming	14.11.2022-16.11.2022	Two days	DoEE, TNAU, Coimbatore
19	Dr.S.Arulselvi	State level Refresher training on Recent Technologies in agriculture with special focus on Natural Farming	08.11.2022 10.11.2022	Two days	DoEE, TNAU, Coimbatore
20	Dr.D.Periyar Ramasamy	State level Refresher training on Recent Technologies in agriculture with special focus on Natural Farming	14.11.2022-16.11.2022	Two days	DoEE, TNAU, Coimbatore
21	Dr.M.Sabapathi	State level Refresher training on Recent Technologies in agriculture with special focus on Natural Farming	21.11.2022 to 23.11.2022	Two days	DoEE, TNAU, Coimbatore
22	Dr. M.Selvamurugan	State level Refresher training on Recent Technologies in agriculture with special focus on Natural Farming	21.11.2022-23.11.2022	Two days	DoEE, TNAU, Coimbatore

23	Dr.V.Karunakaran	State level Refresher training on Recent Technologies in agriculture with special focus on Natural Farming	21.11.2022-23.11.2022	Two days	DoEE, TNAU, Coimbatore
24	Dr.D.Periyar Ramasamy	International Symposium on India @2047	09.11.2022 - 11.11.2022	Two days	AEC&RI ,TNAU,CBE
25	Dr.D.Periyar Ramasamy	Training on Extension Next	12.12.2022 to 16.12.2022	Five days	TNAU,CBE sponsored by MANAGE,Hyderabad
26	Dr.V.Karunakaran	National Salinity Conference	11.10.2022-13.10.2022	Three days	ADAC&RI sponsored by ISSS-Karnal ICAR-CSSRI, Karnal, TNAU-Coimbatore & ICAR New Delhi

Details of sponsored projects/programmes implemented byKVK

S.No	Title of the programme / project	Sponsoring agency	Objectives	Duration	Amount (Rs.)
1	CFLD on Pulses	ATARI, Hyderabad	To Implement the Cluster Front Line Demonstrations on pulses (Black gram and Green gram) for the year 2022-23 for improving the productivity of the pulse crops like Black gram and Green gram in Thiruvarur District. To increase the area under Pulse crops *viz.*, Black and Green gram in Thiruvarur district through Cluster approach and thus increase the farmers income	2022-23	2,00,000
2	Tamil Nadu Irrigated Agriculture Modernization Project	World Bank		2018-2023	402.93 Lakhs
3	Promoting organic paddy farming - Integrated crop management strategies with special reference to ecological engineering for SC farmers	IIRR, Hyderabad	1. To encourage farmers to use organic manure, bio fertilizers, bio fungicides and bio control agents 2. To enhance the soil health by using organic and inorganic fertilizers based on soil test based nutrient application and productivity and increase crop yield	2022-2023	11.93 Lakhs
4	Augumenting the Livelihood of Cauvery Delta farmers through Demonstration of Paddy Cum Fish Culture	NABARD, Chennai	**13 Nos. including 1 unit @ KVK, Needamangalam**	2022-2024	24.75 Lakhs
5	Strengthening Dairy Value Chain and Improve	National Commission for Women, New Delhi	To empower women dairy farmers with technical knowledge and skill for clean milk collection/ production.	2022	1.725 La

	Livelihood of Dairy Women Farmers		To train the Farmers/SHG/Women Cooperatives on market milk and milk products. To Link the dairy farmers with the organised dairy business sectors.		
6	Microbial decomposition of Agricultural Residues through Vermicomposting under Swachta Pakhwada for the Year	ATARI	To maintain hygiene and sanitation, collection of farm waste and production of compost. To conduct awareness campaign on agricultural waste management and utilization of organic wastes, polythene free status, composting of kitchen and home waste materials, Herbal Garden, Nutrition Garden etc., To maintain the demonstration units of Roof Top garden, Nutrition Garden, Herbal garden	2022-23	13,800
7	Microbial decomposition of Agricultural Residues through Vermicomposting under Swachta Pakhwada for the Year	ATARI	➢ To maintain hygiene and sanitation, collection of farm waste and production of compost. To conduct awareness campaign on agricultural waste management and utilization of organic wastes, polythene free status, composting of kitchen and home waste materials, Herbal Garden, Nutrition Garden etc.,	2022-23	14,000
8	Farmers Scientist interface meeting	ATARI		2022-23	2,25,000
9	Farmer Fair-Azad ki Amrit Mahotsav	ATARI		2022-23	1,00,000
10	TNIAMP- Phase IV	World bank through TN Government	• Coverage area 46,774.71 hectares. • 50 training programmes • 10 Exposure visits • 1 Farmers mela • 1200 Farmers	2022-2025	238.52 /- lakhs

11	Regional Agricultural Mela	ATARI	To sensitise farmers about the latest and breakthrough technologies in agriculture and allied sectors To facilitate connect between farmers and other stakeholders To motivate and prepare the farmers as market oriented agripreneurs through organized exhibitin of impactfull iniatives	2022-23	1,10,000
12	TNIAMP- Phase I	World bank through TN Government	• Coverage area 2264 hectares. • 40 training programmes • 3 Exposure visits • 1 Farmers mela 2200 Farmers	2018-2023	197.24 /- lakhs

Funding Agency	TNIAMP
State/Central/Over Seas	Central
Title	TNIAMP (Tamil Nadu Irrigated Agriculture Modernisation Project) Phase – IV (CDZ – Vennar Sub basin).
Objectives	To enhance productivity and climate resilience of irrigated agriculture, improve water management and increase market opportunities for farmers and agro-entrepreneurs in selected sub-basin areas of Tamil Nadu.
Study area	8 out of 10 blocks in Thivarur district, Only village basins irrigated by Vennar river and its tributaries, which were suggested by PWD department. The Covered blocks - (Needamangalam, Mannargudi, Thiruvarur, Thiruthuraipoondi, Kottur, Valangaiman, Koradacherry and Muthupettai) with a Coverage area 46,774.71 hectares.
Methodology	Identification of the farmers for the adoption of Various crop specific interventions and to Create awareness through various trainings.
Team Members	T.Sindhuja , SRF M.Odoric Naveen, JRF S.DineshKumar , JRF G.Nithya, JRF K.Venkatesh , TA J.Manimaran,TA B.Kalayarasi , TA S.Venkatesh,TA
Budget	Rs.238.52 /- lakhs
Funding Agency	World Bank
State/Central/Over Seas	State
Title	TNIAMP (Tamil Nadu Irrigated Agriculture Modernization Project) Phase – I (CDZ).
Objectives	To enhance productivity and climate resilience of irrigated agriculture, improve water management and increase market opportunities for farmers and agro-entrepreneurs in selected sub-basin areas of Tamil Nadu.
Study area	4 out of 10 blocks in Thivarur district, Only village basins irrigated by Cauvery and its tributaries, which were suggested by PWD department. The Covered blocks - (Needamangalam, Mannargudi, Nannilam and Muthupettai) with a Coverage area 2,264 hectares.
Methodology	Identification of the farmers for the adoption of Various crop specific interventions and to Create awareness through various trainings.
Team Members	Dr.V.Radhakrishnan Nodal Officer Dr.M.Selvamurugan Project Scientist P.suresh , JRF S.Guhan, TA
Budget	Rs. 197.24 /- lakhs

Funding Agency	NABARD
State/Central/Over Seas	Central
Title	Augumenting the Livelihood of Cauvery Delta Farmers through Demonstration of Paddy cum Fish Culture
Objectives	• To establish a Paddy cum fish culture model demonstration unit in KVK, Needamangalam to serve as a satellite model for the visiting farmers. • To replicate the model in ten Traditional Organic Paddy Growing Farmers field in Thiruvarur District. • To build the capacity of the farmers in selected villages about the successful paddy cum fish culture model. To facilitate the farmers in marketing their traditional paddy and fish through Farmer Producer Companies.
Study area	**13 Nos.in the farmers field including 1 unit @ KVK, Needamangalam.**
Methodology	1. The establishment of paddy cum fish culture model in KVK, Needamangalam. 2. Replication of the model in ten farmers field spread in all blocks of Thiruvarur District and capacity building of selected farmers about paddy cum fish culture. 3. Facilitation of farmers for marketing through Farmer Producer Companies.
Team Members	**PIs** 1. Dr. V. RADHAKRISHNAN Programme Coordinator ICAR- Krishi Vigyan Kendra, Needamangalam 2. Dr. M. RAMASUBRAMANIAN Professor, Nambalzvar Organic Centre **Co-PIs** 1. Dr.D. PERIYAR RAMASAMY Assistant Professor (Agrl. Extension) & Scientist Icharge 2. Dr.V. KARUNAKARAN Assistant Professor (Agronomy) 3. Dr. M. SELVAMURUGAN Assistant Professor (Environmental Sciences) 4. Dr. M. SABAPATHI Assistant Professor (Veterinary & Animal Sciences) 5. Dr. S. KAMALASUNDARI Assoc. Professor (Food Science and Nutrition) 6. Dr.S.ARUL SELVI Assoc, Professor (PBG)
Budget	Rs.24.75 lakhs

Promoting organic paddy farming - Integrated crop management strategies with special reference to ecological engineering for SC farmers

Under this project organic rice farming by adopting the Integrated crop management (ICM) with special focus to ecological engineering to avoid the pollution and harmful chemical residues release into the rice ecosystem of Cauvery Delta Zone and production of pesticide residue free organic rice. For this 80 number of underprivileged farmers in Thiruvarur district was identified with the elected local panchayat members. In this four day of rigorous training farmers were exposed to various activities viz., class room lecture, field visit, exposure and organic input preparation etc. Inputs like azolla, bio-control agents, solar light trap and battery operated sprayers to the beneficiaries to practice the ICM in organic rice cultivation. In the farmers feedback they mentioned that they are benefitted by undergoing this four day training programme exclusively meant for organic rice cultivation by adopting various technologies for successful cultivation of organic rice.

Microbial decomposition of Agricultural Residues through Vermicomposting under Swachta

Activities carried out for the period January 22 – March 22 was Awareness campaign , Pledge taken Single use plastics and why and how to avoid ,Importance of wearing mask cleanliness and Importance of biofencing

Cleaning of KVK office, KVK premises, cleaning of old files , Conduct of Slogan writing competition, , Cleaning of public places like railway station , Govt School etc.,

Strengthening Dairy Value Chain and Improve Livelihood of Dairy Women Farmers

Day -1 : 21.2.2022

This training was inaugurated on 21.02.2022. The Programme coordinator Dr.V. Radhakrishnan welcomed the gathering and shared the activities of KVK. Inaugural address was delivered **by Mr.M.Ravi,** General Manager Aavin, Thanjavur District Cooperative Milk Producers Union Ltd, Thanjavur and presided by **Mr.P.Chidambaram,** District Revenue Officer of Thiruvarur. The felicitation address was delivered by **Mr.N.Elangovan**, Deputy Registrar (Dairying), Dairy Development Department, Thiruvarur. Aavin Society officials also participated in the inauguration program.

Exhibition was organized on Dairy management, processing equipment's, Leaf Folders on Disease management, best breeds. Fodder crops, fodder was also placed. value added milk products that are of commercial value (Flavoured milk, spread, milk powder, payasam mix, yogurt, paneer, cheese) was placed for display. Packaging materials related tomilk products was exhibited. Pamphlet on Milk value addition was released. Lectures on entrepreneurial skill development, government rules and regulations and government schemes were organized by inviting faculties. Lecture schedule is enclosed (Annexure II) Lecture on Selection and Grading of Dairy Cow and Clean milk production was delivered by Dr.S. Madhavkumar by Aavin Manager.

Hands on training and Demonstration on Indigenous medicine for cow udder disease, milk chocolate, Milk sweet was done on first day was done by Dr. S.Kamalasundari.

Day – 2: 22.02.2022

Trainees were empowered with technical knowledge and skill for milk collection and cattle breed management, cattle feed management was handled by Dr.M.Sabapathi, Asst. Prof.(VAS). The lecture on Dairy microbiology and Quality Management systems in Milk products was handled by Dr.T. Uma Maheswari, Asst. Prof., Dairy Microbiology, AC&RI, Trichy. Details related to name of cultures place of purchase all was detailed. Demonstration on hands on training on Yogurt, Shrikand, fruit lassi lassi, Sweet curd and curd was given.

Day – 3: 23.02.2022

On the third day Packaging, Labelling, Food Certification of value-added products was dealt by Dr.S.Kamalasundari, Economics, Register and Cash maintenance and Marketing of Milk products by Co-operative society by Dr.D.Periyar Ramaswamy. Demonstration on Flavoured milk (Carrot and beetroot, badam, Choclate, Masala butter milk and Paneer sweets kalakand) using paneer.

Day – 4: 24.02.2022

Exposure Visit was planned to SRJ Exposure visit was organized to SRJ farm Mannai Ulavan, Athichapuram, Mannarkudi products as they are Manufacturer of cowdung based valueadded products, vibuti, panchakavya, cow feed, EM Solutions, bio compost and also visited Aaavin milk processing unit. In the Aavin Plant Pasteurisation, testing of milk, preparation of butter, ghee, khoa were shown. Ice cream production was also shown during the exposure visit.

Day – 5: 25.02.2022

Lecture on Cooperative society formation was dealt with, **Mr.N.Elangovan,** Deputy Registrar (Dairying), Dairy Development Department, Thiruvarur. Details on franchise for Aavin parlour was also dealt.

Valedictory Function was conducted **Mr.N.Elangovan,** Deputy Registrar (Dairying), Dairy Development Department, Thiruvarur chaired the function. Certificates, pamplets, bags were distributed to all the trainees.

Key result/insight/interesting fact

Three trainees started selling their products and one village steps are taken to form cooperative society. Income of them who started various products has been increased. They have developed infrastructure for their units *viz*. paneer pressing machine, milk processing vessels, milk products manufacturing, Cream separator purchase. KVK conducted Kisan Mela on 09.03.2022 at KVK campus where more than 350 farmers participated. Two Trainees sold their value-added products in the mela (photo enclosed). In the name of KS Subam Milk Khoa, Thanyalakshmi products. This training also linked the dairy farmers with the organised dairy businesssectors AAVIN and Private Tamil milk

Success stories

1.More delicious and profitable sirukeerai variety for increasing the livelihood of Thiruvarur farmers

1. Situation analysis/Problem statement:

Mr. C. Govindharasu, s/o. Chinnaiyan is a zealous and experienced farmer who is residing at Adhanur vattam, Needamangalam block of Thiruvarur district. He would often approach the ICAR - Krishi Vigyan Kendra, Thiruvarur asking for new varieties in greens and technologies for adoption. He is cultivating greens of local varieties in a large scale and selling his produce in the local market. Earlier he cultivated greens of local varieties and he faced a problem of white rust which plundered the entire farm. Ultimately, he ended with disappointment in cultivation of greens. So, he was fond of new varieties with white rust resistance and good marketing value. In these circumstances, he visited ICAR-KVK, Thiruvarur and enquired the Scientists of KVK for new green varieties. Based on the idea received from ICAR - KVK, Thiruvarur, he cultivated a new green varieties PLR 1 and Arka Samraksha for an area of one acre

2. Plan, Implement and Support:

He approached the ICAR - KVK, Thiruvarur for getting guidance to cultivate the sirukeerai variety, which is highly preferred by the consumers. Further, he attended various trainings on Cultivation of sirukeerai variety under organic agriculture, eco-friendly technologies for pest and disease management, soil health management, seed production technologies, etc. Consequently, ICAR KVK has supplied various inputs like good quality PLR 1 sirukeerai seeds, biofertilizers and other inputs. In addition to that, KVK - Thiruvarur has conducted a On Farm Trial on “Assessment of Sirukeerai variety in Thiruvarur district” in one acres of land at the farm of Mr. C. Govindharasu. All technical guidance has been given

to the farmer with frequent field visits. As per the technical advice, he adopted all Integrated Crop Management practices like seed treatment, integrated nutrient and water management, integrated pest and management, *etc*.

3. Output:

The farmer harvested the PLR 1 sirukeerai variety and Arka Samraksha variety about 25 and 35 days of duration respectively. The sirukeerai variety PLR 1 was shorter (42 cm) when compared to Arka Samraksha (94 cm) and local variety (103 cm) and the leaf area also smaller in sirukeerai PLR 1 variety. Even though sirukeerai PLR1 had lesser herbage (8.63 t/ha) than Arka Samraksha (9.36 t / ha) it was more delicious and preferred by the consumers. No incidence of white rust disease was found on both PLR1 and Arka Samraksha while local variety recorded 100 % of incidence. Since sirukeerai was more delicious and preferred by the consumers, it fetched high price in the market and hence cultivating of sirukeerai PLR1 was more profitable than cultivating other varieties.

Therefore, the market value of sirukeerai PLR 1 variety was higher than Arka Samraksha and other local varieties. The farmer sold greens in the local market and earned the net income of Rs. 2,00,000/- per ha with B:C ratio of 5.00 which was higher than other varieties. Moreover, there was huge demand for sirukeerai PLR1 variety from the comsumers.

4. Outcome

Even though the herbage yield of Sirukeerai PLR 1 variety was slightly lesser than Arka Samraksha, the profit out of cultivation of sirukeerai PLR 1 variety was high as PLR 1 fetched high price in the market. Sirukeerai PLR 1 variety was sold in the local market at the rate of Rs. 2,50,000/- per ha with net return of Rs. 2,00,000/- with in a month period which was more economical rewarding. The profit earned by Mr. C. Govindharasu was known to other nearby farmers and they are also very interested to cultivate sirukeerai PLR 1 variety.

5. Impact:

Sirukeerai variety PLR 1 was preferred by the consumers since it was very delicious. In addition to that the small leaves of PLR 1 was more attractive than large leaves of Arka Samraksha and Local variety in marketing point of view. Only five farmers were cultivating sirukeerai PLR 1 during 2022-23 and large number of farmers of Thiruvarur district are interested to cultivate sirukeerai PLR1 variety in the forthcoming season. By this trial, it is expected to extend the area under cultivation of sirukeerai PLR 1 variety in near future.

2.Farmer transforms to successful entrepreneur

Mr.G.Balamurugan
21A/5A Indian Gandhi Nagar

Kulam Kalkarai
Needamangalam

Situation analysis/Problem statement:

Mr. Balamurugun is a graduate and owns 4 acre land and cultivating rice, cotton, blackgram, coconut who treats farming close to his heart. He always aspire for good returns in agriculture. He was not able to reap the fullest benefits and understood his neighbour farmers also did not enjoy the true benefits. He wanted to help other farmers also in this area. He observed farmers are selling copra for just Rs 50-55 per kg to middlemens who inturn supplies to oil expeller units. He started to own oil mill and he decided to procure copra from farmers directly paying extra Rs 10 more Rs 60-65/kg. He started the unit with wood expeller in Dec 2019. He started to produce all types of oils coconut,gingelly,groundnut,castor, deepa oil etc., He processes the oil seeds and with just Rs 20 as profit per litre he started selling the oils and he was not able to run in profit mode moreover the quality of raw materials supplied was not that good. The groundnut oil was too bitter and nearly 100 litres was waste.

Plan, Implement and Support:

He came to KVK finally in 2021 for consultation. To enhance the benefit cost ratio as per the suggestion of SMS (Food Science) he was given guidance on different varieties of gingelly,groundnut, coconut. The best varieties that is suitable to that area. Details of farmers growing those varieties was given and training was provided to them on extraction methods, temperature and moisture content of the produce, additives used for more recovery of oil. Packaging and marketing guidance was given . Application for PMYEGP was guidedRs 25 lakhs was sanctioned from Tamilnadu Grama Bank Machinery: Guidance on purchase of nine machines with the sanctioned grant was obtained. wood expelle r and grinding machienes was used technical support in terms of consultancy, advisories,training was done periodically. He observed just choosing right variety extra of 1.5 lts received for 20 kg seed.

Output:

They faced hurdles in processing techniques and slowly improved their method and became expertise in standardizing the right proportion of production technique . He developed more suppliers and his oil reaches to most of the customers in Thiruvarur district

Outcome:

The machines were installed in April 2023. His production increased to 500- 800 litres /month. The profit increased to more than Rs 30 per litre.so Rs 15000. The byproducts like oil cake was made to animal feed and also sold for Rs 60/ kg. The quality parameters was tested and the there was change in labelling, packaging materials.

Impact:

He started to the website www.vnba.in and has around 22 products listed. He was honoured in the Regional Agricultural Mela 2023 conducted by the KVK

New Machines erected under PMYEGP scheme

CASE STUDY ON COCONUT TONIC

Four years back on 16th November 2018 *Gaja* cyclone hit the entire Cauvery Delta Zone (CDZ) in which part of the East Coast Zone coconut plantation crops uprooted by the devastation. The coconut farmers psychologically not yet recovered from the aftermath of the cyclone impact especially the coconut plantations. Due to cyclone the nuts yield in a year dropped drastically from 200 to 100 nuts / tree / year. This Moreover the farmers are also not showing the interest for fertilizer application in the coconut garden. Considering the above demonstration intervention on "INM practices for higher yield in coconut" and additionally extra efforts were taken for technology dissemination for the betterment of coconut growers in Thiruvarur district.

Rapid coconut survey was conducted with a team involving Programme Co-ordinator, SMS (Agronomy and Horticulture) rigorously for five days throughout the distinct and listed the biotic and abiotic factors that affects the coconut performance. From the survey it was clearly understood that the coconut farmers are not aware of coconut nutrient requirement, pencil tip disorder, button shedding, Tanjore wilt, Rugose spiralling whitefly. Black headed caterpillar, red palm weevil and Eriophyid mites. Among the above listed problems nutrition is the root cause for all. Hence the issue of nutrition addressed with Integrated Nutreient Management in Coconut FLD in productive zones. In which the coconut tonic is a crop booster meant exclusively for the coconut to improve the nut size, reduce the button shedding, drought tolerance and etc., In the district itself almost 450.litres worth of Rs 139050 and the 165 coconut farmers were benefitted by this technology in Thiruvarur as well as in the adjoining districts. Organized Coconut Farmers Mela 2022 in collaboration with Rotary Club in Muthupettai block in which around 150 coconut growers in the district participated and exhibition also arranged for the benefit of farmers. Further world coconut day meeting was organized jointly with the Assistant Director of Agriculture – Thiruthuraipoondi in which around 75 farmers got benefited from the training programme. Technologies are also disseminated with leaflets and Newspaper message on coconut tonic rugose spiralling white fly management. Our KVK SMS (Food Science and Nutrition) imparted training on value addition in coconut for improving the livelihood of coconut growers in the district.

Wide reach of the production technologies especially the NPK nutrition and coconut tonic to meet out the nutrient requirement for along with sufficient irrigation to meet the per day water requirement of 120-150 litres/tree/day together solved almost 75% of problems faced by the coconut growers. The yield advantage from coconut tonic root feeding by the farmers once in six month clearly exhibited in increase nuts yield/tree and it was around 35 % increase from the existing routine per tree yield recorded by the farmers. The potassium application in the form of KCl @ 3.5 kg/tree/year increases the resistance to drought and eriophyid mite incidence in the coconut also indirectly improves the yield performance. The sale of coconut tonic was published in a tamil popular magazine / TV which led to reach the entire Tamil Nadu state and farmers from all over the state gets benefitted to avail the services of ICAR-KVK Thiruvarur.

After the intervention farmers are carrying out the regular nutrient and water management along with clean free environment and raising green manures to enrich the coconut farm with organics and additional application of farm yard manure at six month interval and pest scouting also undertaken by the farmers periodically to save the coconut from biotic and a-biotic incidents. In continuation to the off campus training by the SMS (Food science and nutrition) on campus paid trainings were conducted and technical supports being rendered by the concerned subject matter specialist for successful farming of coconut in and outside the districts.

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

Details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

Impact of KVK activities (Not to be restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./ha)	After (Rs./ha)
Adoption of organic manures and bio fertilizers in traditional rice cultivation	30	100	72805	103675
Short duration & rice fallow pulse Black gram – ADT 7	40	25	24680	33360
Coconut tonic root feeding as part of INM In coconut	150	75	179000	390600
Foliar application of TNAU Cassava booster in cassava	20	100	181780	220580

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

1. Intervention/ activity: Adoption of organic manures and bio fertilizers in traditional rice cultivation

Parameter	Demo	Check
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check	7000	-
Productivity (in q/ha) in demo	43.05	32.23
Additional yield over check (in q/ha)	10.82	-
% increase in yield over check	33.57	-
Gross returns (in Rs/ha)	150675	112805
Net Returns (Rs / ha)	103675	72805
Additional Net Returns in demo (demo –check)	30870	-
B:C ratio	3.21	2.82

Outcome

Area covered, spread in adopted villages (ha)	50
Economic impact of KVK interventions (Rs) (Additional net returns in demo x no. of ha)	926100
Area spread in district through convergence (ha)	200

2. Intervention/ activity: Short duration & rice fallow pulse Black gram – ADT 7

Parameter	**Demo**	**Check**
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check	1000	-
Productivity (in q/ha) in demo	7.42	6.21
Additional yield over check (in q/ha)	1.21	-
% increase in yield over check	19.48	-
Gross returns (in Rs/ha)	59360	49680
Net Returns (Rs / ha)	33360	24680
Additional Net Returns in demo (demo –check)	8680	-
B:C ratio	2.28	1.99

Outcome	
Area covered, spread in adopted villages (ha)	100
Economic impact of KVK interventions (Rs) (Additional net returns in demo x no. of ha)	86800
Area spread in district through convergence (ha)	150

3. Intervention/ activity: Coconut tonic root feeding as part of INM In coconut

Parameter	**Demo**	**Check**
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check	60000	-
Productivity (nuts/ha/year) in demo	37400	18000

Additional yield over check (in nuts/ha/year)	19400	-
% increase in yield over check	107.7	-
Gross returns (in Rs/ha)	523600	252000
Net Returns (Rs / ha)	390600	179000
Additional Net Returns in demo (demo –check)	211600	-
B:C ratio	3.94	3.45

Outcome	
Area covered, spread in adopted villages (ha)	45
Economic impact of KVK interventions (Rs) (Additional net returns in demo x no. of ha)	9522000
Area spread in district through convergence (ha)	400

4. Intervention/ activity: Foliar application of TNAU Cassava booster in cassava

Parameter	**Demo**	**Check**
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check	3000	-
Productivity (in q/ha) in demo	425.5	365.4
Additional yield over check (in q/ha)	60.1	-
% increase in yield over check	16.44	-
Gross returns (in Rs/ha)	297850	255780
Net Returns (Rs / ha)	220580	181780
Additional Net Returns in demo (demo –check)	38800	-
B:C ratio	3.87	3.45

Outcome	
Area covered, spread in adopted villages (ha)	20
Economic impact of KVK interventions (Rs) (Additional net returns in demo x no. of ha)	776000
Area spread in district through convergence (ha)	150

Cases of large scale adoption/impact of specific technologies: -

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

Linkages

Functional linkage with different organizations

Name of the organization	Nature of linkage
NABARD	Participation in Meeting and conduct of Training on crop production and precision technology of Agricultural and allied sectors. **Outcome:** Wide spread of schemes which are implemented by NABARD
Department of Agriculture	Monthly Zonal Workshop, Field survey, Diagnostic Visit, Joint implementation, Participation in Meeting and conduct of Training on crop production and Protection technologies of mandatory crops of Agricultural crops. **Outcome:** Popularization of new varieties and technology andTimely pest and disease management • .
Department of Horticulture	Field survey, Diagnostic Visit, Joint implementation, Participation in Meeting and conduct of Training on crop production and Protection technologies of Horticultural crops. **Outcome:** • Popularization of new varieties and technology and related to horticulture. • Timely management of pest and disease.
Department of Agricultural Engineering	Participation in Meeting and conduct of Training on crop production and precision technology of Agricultural and Horticultural crops. **Outcome:** Department of AED officials delievered their scheme details on Agricultural Engineering.
Department of Animal Husbandry	Field survey, Diagnostic Visit, Joint implementation, Participation in Meeting and conduct of Training on crop production and Protection technologies of Cattle, Goat and Poultry. **Outcome:** Department of Animal Husbandry officials delievered their scheme details on trainings
Department of Fishery	Field survey, Diagnostic Visit, Joint implementation, Participation in Meeting and conduct of Training on Fishery technology. **Outcome:**

	Department of Fishery officials delivered their scheme details on trainings conducted by ICAR - KVK
Department of Forestry	Field survey, Diagnostic Visit, Joint implementation, Participation in Meeting and conduct of Training on trees **Outcome:** Department of Forestry officials delievered their scheme details on trainings and special programmes
Department of Sericulture	Field survey, Diagnostic Visit, Participation in Meeting and conduct of Training on mulberry and silkworm. **Outcome:** Department of Sericulture officials delievered their scheme details on trainings and special programmes
Department of Agricultural Marketing and Agriculture Business	Participation in Meeting and conduct of Training on regulated market committee and storage. **Outcome:** Department of Agricultural Marketing officials delivered their scheme details on trainings and special programmes
District Administration – Thiruvarur	Technological backstopping during Farmers grievance day of every third Thursday of the month. **Outcome:** • Farmer's grievance related KVK were solved. • Season wise lectures were delievered.
IIFPT,Thanjavur	Training to farmers, Rural Youth and data analysis for value addition, post harvest and processing. **Outcome:** Thiruvarur district farmers and farm womens were exposed to the value.

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.)
CFLD on Pulses	2022-23	ATARI, Hyderabad	2,00,000
Tamil Nadu Irrigated Agriculture Modernization Project	2018-2023	World Bank	Rs. 402.93 Lakhs
Promoting organic paddy farming - Integrated crop management strategies with special reference to ecological engineering for SC farmers	2022-2023	IIRR, Hyderabad	Rs.11.93 Lakhs
Augumenting the Livelihood of Cauvery Delta farmers through	2022-2024	NABARD, Chennai	24.75 Lakhs

Demonstration of Paddy Cum Fish Culture			
Strengthening Dairy Value Chain and Improve Livelihood of Dairy Women Farmers	2022	National Commission for Women, New Delhi	1.725 La
Microbial decomposition of Agricultural Residues through Vermicomposting under Swachta Pakhwada for the Year	2022-23	ATARI	13,800
Microbial decomposition of Agricultural Residues through Vermicomposting under Swachta Pakhwada for the Year	2022-23	ATARI	14,000
Farmers Scientist interface meeting	2022-23	ATARI	2,25,000
Farmer Fair-Azad ki Amrit Mahotsav	2022-23	ATARI	1,00,000
Augumenting the Livelihood of Cauvery Delta farmers through Demonstration of Paddy Cum Fish Culture	2022-2024	NABARD, Chennai	24.75 Lakhs
Regional Agricultural Mela	2022-23	ATARI	1,10,000

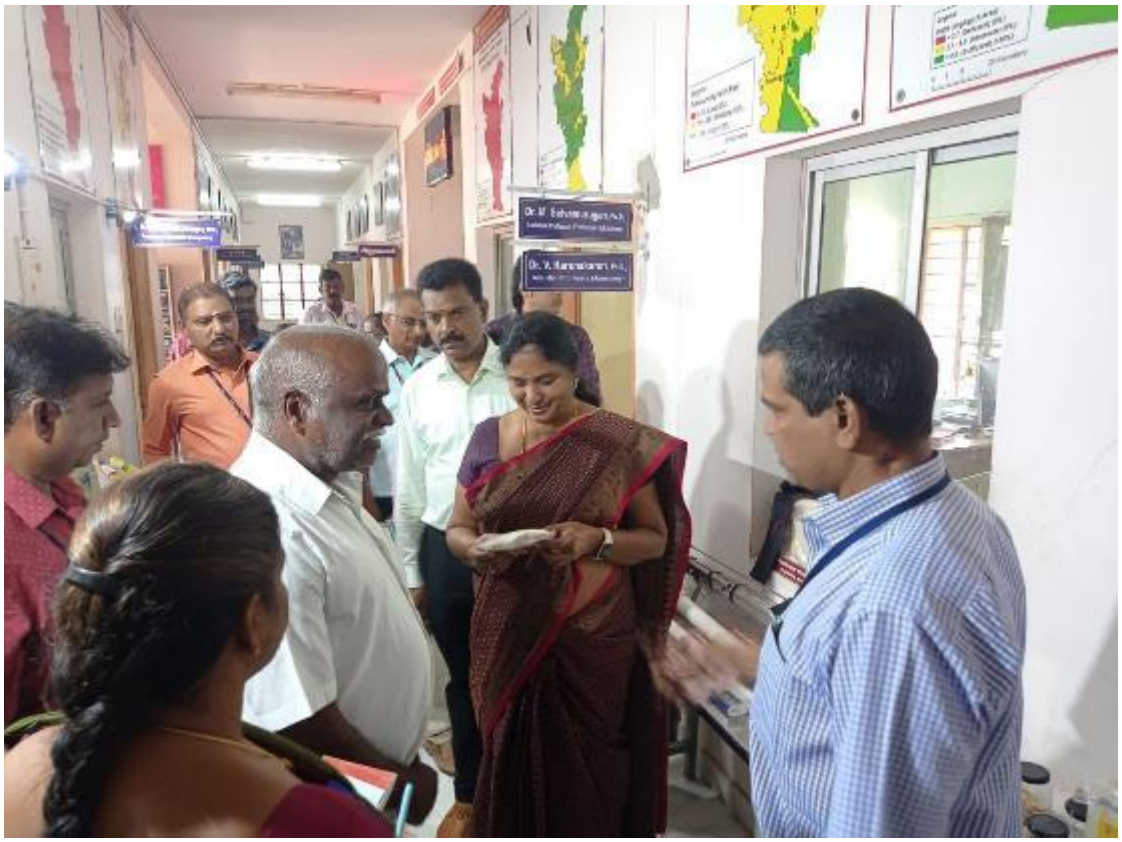
AWARDS and RECOGNITIONS

KVK, KVK Staff, KVK Contact Farmers etc. at district, state, national and international level supported by copies of certificates and photographs

S. No.	Name of the scientist / Institution	Name of the Award	Sponsors/agency/Institution	Year	National / International
1	Dr.M.Selvamurugan	Received Best Extension Worker Award 2022 in Environmental Science from Society for Nature and Applied Sciences (SNAS), Tiruchirappalli during 1st "National Conference on Emerging Trends And New Vistas In Applied Sciences (NCETNVAS 2022)" held at Nandha college of Pharmacy, Erode on 31.12.2022	Society for Nature and Applied Sciences (SNAS), Tiruchirappalli	2022	National
2	Dr.M.Selvamurugan	Received Best Poster Presentation Award – Third Prize during 1st "National Conference on Emerging Trends And New Vistas In Applied Sciences (NCETNVAS 2022)" held at Nandha college of Pharmacy, Erode on 31.12.2022	Society for Nature and Applied Sciences (SNAS), Tiruchirappalli & Nandha college of Pharmacy, Erode	2022	National
3	Dr. V. Karunkaran	Best poster presentation award (Second place)	Nandha College of Pharmacy-Erode	2022	National
4	Dr. V. Karunakarn	Best Research Article Award in JCAS-2022	Nandha College of Pharmacy-Erode	2022	National
5	Dr.V.Radhakrishnan	Best Extension Worker Award	Received from the Thiruvarur District Collector during Indipendance day celebration	2022	District
6	Dr.S.Kamalasundari	Best Extension Worker Award	Received from the Thiruvarur District Collector during Indipendance day celebration	2022	District
7	Dr.S.Kamalasundari	Achiever Award 2021	Society for Advancement of Human and Nature (SADHNA). Himachal Pradesh,	2022	National

Important Visitors to KVKs during 2022 (with photographs)

Honourable Vice Chancellor Dr.V.Geethalaxmi visit-08.06.2022



Thiru R. Sakkarapani, Honourable minister for Food and Civil Supplies, Consumer Protection and Price Control, TN Govt -30.05.2023

Annexture I

12th SAC Proceedings

The 12th Scientific Advisory Committee Meeting of KVK, Needamangalam was held on 16.03.2023 to discuss the action plan for the ensuing year. Dr.V.Radhakrishnan, Programme Coordinator, welcomed the gathering of the meeting and explained the action taken on the recommendations of the 11 th SAC meeting conducted on 23.12.2021. He also presented the overview of ICAR-KVK and its mandatory activities since last SAC. The meeting was inaugurated by Dr. K. Subrahmaniyan, Director, TRRI, Aduthurai who has highlighted the achievements of the KVK and motivated the scientists to work with involvement. The Dean, AC & RI, Kilvelur, Dr.G.Ravi participated as special invitee. During his special address he indicated certain action to be taken up by the KVK scientists for the ensuing year. Th.M.Lakshmigandhan, Joint Director of Agriculture, Thiruvarur highlighted some of the location specific technologies to be disseminated by KVK. The event was attended by all heads of Line departments. Publications of the scientists were released by the dignitaries during the occasion.At the end Dr.S.Kamalasundari, Associate Professor (FSN) proposed vote of thanks.

The following official and non official members of Scientific Advisory Committee participated in the meeting.

S.No	Name	Designation	Address	Affiliation
1	Dr. K. Subrahmaniyan	Director	Tamil Nadu Rice Research Institute, Aduthurai	Member
2	Dr.G.Ravi	Nodal Officer	Agricultural College and Research Institute, Kurukkathi, Keezhvelur	Special invitee
3	Th.M.Lakshmikandhan	Joint Director of Agriculture (i/c)	Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur	Member
4	Tmt. O. Vijayalakshmi	Deputy Director of Agriculture (GOI)	Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur	Member
5	Tmt.R.Saarumathi	Deputy Director of Agriculture	Agricultural Business and Marketing Regulated Market campus, Thiruvarur	Member

6	Th.S. Viswanth Kanna	District Development Manager	NABARD, Tiruvarur	Member
7	Dr. C. Karpagam	Principal Scientist	National Research Centre for Banana Thogamalai Road, Thayanur Post, Tiruchirapalli -2	Member
8	Dr.S. Swaminathan	Deputy Director of Animal Husbandry	Veterinary Hospital Campus, Nethaji road, Thiruvarur	Member
9	Dr. A. Gopalakannan	Programme Co-ordinator	KVK, Sikkal, Nagapattinam	Member
10	Tmt. Hema Hepzibah Nirmala	Assistant Director of Agriculture	Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur	Member
11	Th.V.T.Mohan Kumar	Assistant Director of Fisheries	Room No. 210, Second floor, District Collectorate Office additional building, Opp. to District court, Thiruvarur	Member
12	Th. S. Murugadas	Assistant Executive Engineer	Department of Agricultural Engineering Mannargudi	Member
13	Dr. M. Ramachandran	Professor and Head	VC & RI, Orathanadu	Member
14	Th. K. Selvam	Executive Officer	TNRTP, Thiruvarur	Member
15	Dr.V. Hema	Professor	NIFTEM, Thanjavur	Member
16	Dr. V. Sujatha	Assistant Professor	Farmers Training Centre TANUVAS, Vilamal	Member
17	Th.A. Ashok	Seed Certification Officer	Department of Seed Certification, Thiruvarur	Member
18	Mrs. S. Ananthi	Social Extension Officer	Needamangalam	Member
19	Th. A Venkatesan	Assistant Director	District Industries Centre Thiruvarur	Member
20	Tmt. S. Amalorpava Mary	Block Coordinator	TNRTP, Thiruvarur	Member
21	Th. R. Sankar	Assistant Executive Engineer	WRD, Vennar Basin Thiruthurai poondi	Member
22	Th. A. Santhirasena	Block Coordinator	TNRTP, Thiruvarur	Member
23	Ms.T.Usha	Assistant Inspector of Sericulture	Department of Sericulture, Thiruvarur	Member
24	Th.M.Senthil	Lead District Manager	Indian Overseas Bank, Thiruvarur	Member

25	Th.R.Venkateswaran	Programme Incharge/Head	Programme Division All India Radio (AIR), Karaikkal	Member
26	Th. A. Balasundaram	Assistant Horticulture Officer	Department of Horticulture and Plantation crops, Needamangalam	Member
27	Th.S.Nandakumar	Big Farmer	S/o. Th. P.S.Sivaprakasam 3/22,West Mandi, Alangudi, Valangaiman Taluk, Thiruvarur - 612 801	Member
28	Th.K. Gunaseelan	Small Farmer	S/o. Th. Kalayanasundram 4/7, Perumal Koil Street, Sarabojipuram, Poonthottam, Kudavasal Taluk Thiruvarur District	Member
29	Tmt. S. Manimozhi	Woman Farmer-1	W/o. Th. T. Senthil Kumar 2/245, Therkadi madhagu Ezhilur, Thiruthuraipoondi Taluk Thiruvarur District	Member
30	Tmt.S.Sundari	Woman Farmer-2	W/o Th.E.Sathish Kumar 129, Kudiyana street Melapoovanoor Post Needamangalam Taluk Thiruvarur District	Member
31	K.H. Salimath sowtha	Agri. Entrepreneur	W/o Th.K.M.Hajamaideen 46/81 A East street, Marakkadai, Latchumaangudi Vakranallur Koothanallur Taluk Thiruvarur District	Member
32	Tmt.P.Babykala	SHG – Chariperson	W/o. Th.D.Paneerselvam 15/113, Merkutheru, Pullavarayan kudikadu, Needamangalam Taluk Thiruvarur District	Member
33	Dr.V. Radhakrishnan	Programme Coordinator	ICAR Krishi Vigyan Kendra Needamangalam Taluk Thiruvarur	Member

The following recommendationswere made by the SAC members for further follow up action during 2023-2024.

Sl.No	Recommendations	Proposed by
1	Suitable small millet is to be identified and popularized for cultivation in Thiruvarur district	Th.M.Lakshmikandhan Joint Director of Agriculture (i/c) Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur
2	Training programmes on IPM for the control of sucking pests in cotton have to be conducted for the farmers / FPOs and feedback is to be obtained	Th.M.Lakshmikandhan Joint Director of Agriculture (i/c) Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur
3	More number of trainings on Organic vegetable production and Soil health management may be conducted for the farmers	Tmt. Hema Hepzibah Nirmala Assistant Director of Agriculture Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur
4	Demonstrations and Trainings may be organized by KVK for suitable Power weeder for rice crop with enhanced efficiency in Delta Region	Th.M.Lakshmikandhan Joint Director of Agriculture (i/c) Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur
5	Rice varieties CO57, ADT 57, ADT 58 may be popularized among farmers	Dr. K. Subrahmaniyan Director, TRRI, Aduthurai
6	FLD may be conducted for popularizing the sunnhemp variety ADT 1	Dr. K. Subrahmaniyan Director, TRRI, Aduthurai
7	VBN 6 Greengram variety may be popularized through FLDs.	Dr. K. Subrahmaniyan Director, TRRI, Aduthurai
8	Training and demonstration of Value added products in Pulses, Casava and Banana may be organized	Dr. C. Karpagam Principal Scientist National Research Centre for Banana Thogamalai Road, Thayanur Post, Tiruchirapalli -2
9	Awareness on Sericulture and Digital marketing may be created among the farmers/ FPOs	Ms.T.Usha Assistant Inspector of Sericulture Department of Sericulture, Thiruvarur
10	Trainings and demonstration of Silage making, Production of animal feed, Azola production have to be conducted for the farmers / FPOs and feedback is to be obtained	Dr.S. Swaminathan Deputy Director of Animal Husbandry Veterinary Hospital Campus, Nethaji road, Thiruvarur - 610 001
11	More number of Training and demonstration on Cultivation of small millets and preparation of small millets recipes / value addition may be organized by the KVK	K.H. Salimath sowtha Agri. Entrepreneur W/o Th.K.M.Hajamaideen 46/81 A East street, Marakkadai,Latchumaangudi Vakranallur Koothanallur Taluk Thiruvarur District
12	Castor crop may be introduced to Thiruvarur District through FLD	Th.M.Lakshmikandhan Joint Director of Agriculture (i/c) Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur
13	Maize may be popularized as alternate crop for rice among farmers so as to enhance the Maize crop area	

14	Banana Sakthi may be introduced among farmers through FLD and trainings	Dr. C. Karpagam Principal Scientist National Research Centre for Banana Thogamalai Road, Thayanur Post, Tiruchirapalli -2
15	Regular programmeon various technologies may be broadcasted regularly in Karaikal FM	Th.R.Venkateswaran Programme Incharge/Head Programme Division All India Radio (AIR), Karaikkal
16	Exposure visit is to be organized for farmers to visit VC&RI, Orathanadu so as to witness the various Animal and feed units	Dr. M. Ramachandran Professor and Head VC & RI, Orathanadu
17	Collaboration training may be organized along with NIFTEM, Thanjavur and NRCB, Trichy	Dr.V. Hema Professor NIFTEM, Thanjavur
18	Awareness and training programmes may be organized to promote green manures like Kozhinji (Tephrosia *purpurea*) and Awri (*Indigofera tinctoria*) which are not grassed by the cattle	Th.K. Gunaseelan Small Farmer S/o. Th. Kalayanasundram 4/7, Perumal Koil Street, Sarabojipuram, Poonthottam, Kudavasal Taluk Thiruvarur District PIN 609503
19	NRCB App may be popularized among Thiruvarur District farmers	Dr. C. Karpagam Principal Scientist National Research Centre for Banana Thogamalai Road, Thayanur Post, Tiruchirapalli -2
20	More number of trainings and demonstration may be organized by the KVK on traditional paddy and Mushroom cultivation and Honey bee rearing	Tmt. S. Manimozhi Woman Farmer-1 W/o. Th. T. Senthil Kumar 2/245, Therkadi madhagu Ezhilur, Thiruthuraipoondi Taluk Thiruvarur District PIN 614 715

Sd/xxx

Programme Coordinator