PROFORMA FOR PREPARATION OF ANNUAL REPORT
(1st January 2024 to 31st December 2024)

1. GENERAL INFORMATION ABOUT THE KVK

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

Name of the KVK as per official records (MoU)	:	Thiruvarur
Address	:	ICAR-Krishi Vigyan Kendra Needamangalam ThiruvarurDistrict 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. D.Periyar Ramasamy
Residential Address	:	Staff Quarters, ICAR - Krishi Vigyan Kendra Needamangalam - 614 404, Thiruvarur District
Phone No	:	-
Mobile No	:	9043425488
Email	:	periyarramasamyd@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
	18. Paddy cum Fish culture	NABARD	2022	1 ha	1.5	-	-	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	-	-	-
12	Borewell- Northern Farm	TNAU	2023		5.00	-	-	Completed

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms covered as on 31.12.2024	Present status
Jeep Bolero-TN 66 V 0317	2017	8,34,445	139930	Good running condition
Tractor with Trailer - Mahindra & Mahindra D1-475-40 HP	2004	4,37,607	4235	Condemned
Tractor John Dere 5045D-45 HP- TN50BU-1103	2024			
Two wheeler - TVS STAR CITY	2006	39,400	55174	Good running condition
Two wheeler – Honda Activa	2009	50,000	74507	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
Lenova Desktop computer – 2 Nos	31.03.2022	119800	Good
Dell vostro Desktop computer (ci5)	29.11.2022	75900	Good
HP Printer Laser Jet-2606Dn	29.11.2022	30900	Good
Canon LBP 6230 DN printer	12.03.2021	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- 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
Ricoh Photo copier	31.03.2016	76,800	Good
Online Shinewave UPS	22.03.2021	21500	Good
Online Shinewave UPS	20.10.2021	21500	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
PA system Portable	29.03.2021	12200	Good
PA system	30.03.2019	9950	Good
Stand Mic, AMP DPA 770	30.03.2019	9950	Good
Speaker SR 500 DX	30.03.2019	4200	Good
Steel almirah unit	31.03.2011	44488	Good
Storage cabinet pricillab	31.03.2011	44837	Good
Land leveler	Jan' 2011	10,000	Good
Furniture and furnishing	March , 2011	2,00,000	Good
Digital Visible Spectrophotometer	2011	37600	Good
All Glass Single Distillation unit	2011	35000	Good

Senior plain cupboard 78x36x19	2011	46892	Good
Willey mill	2011	31500	Good
UP based Flame Photometer	2011	43500	Good
Electronic Top loading balance	2011	19800	Good
Instrument table	2011	78000	Good
Exhaust fan	2011	12240	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
Steel rack	2011	13005	Good
Stotted Angle iron rack	2011	8670	Good
Work Table	2011	15725	Good
Portable soil and water and kit	2011	27200	Good
GPS gramin E-trix	2011	17000	Good
Vaccuam pump	2011	7200	Good

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

S.No.	Date	No of Participants	Salient Recommendations
1.	06.03.2024	27	A newly released rice variety ADT 59 may be popularized through FLD
2.			A high yielding groundnut variety, VRI10 may be popularized through FLD
3			Seed production may be taken up in green manure either in ADT 1 sunnhemp / TRY 1 daincha in KVK farm / farmers' field through farmers participatory mode
4			PPFM may be promoted in Thiruvarur district for drought mitigation
5			A training programme on Algae management may be conducted
6			The suitability of cultivating various traditional rice varieties may be documented
7			A user friendly kapas picking machine in cotton and a motorized seeder in rice may be demonstrated for farmers of the Thiruvarur district
8			The information on e-NAM project may be informed to the farmers in all trainings to be conducted
9			Decomposition technology may be developed / popularized among the farmers to decompose *Water hyacinth* (*Eichhornia sp*)
10			A method to control rhinoceros beetle and rugose spiraling whitefly in coconut may be published through newspaper, TV and radio and awareness programme may be conducted to the farmers
11			Awareness may be created among the farmers to increase water table through farm ponds
12			The experience of farmers having demo units under NABARD project may be documented through video and audio with QR code
13			A training programme on silage making and enriched paddy straw may be conducted for the farmers
14			Kolukattai grass / Subabul / Buffalo grass may be popularized in Thiruvarur
15			Cattle health camp may be conducted
16			Display board in relation to sericulture may be placed in KVK premises
17			Mulberry garden may be established in KVK farm for farmers' visit
18			ADT 6 / ADT 7 blackgram varieties may be popularized
19			Training programmes may be conducted in traditional rice varieties
20			Trainings on cultivation practices in major crops may be given to SHG

Attach a copy of SAC proceedings along with list of participants

Attached in the last page as ANNEXURE I

2. DETAILS OF DISTRICT (2024)

2.0.Operational jurisdiction of KVKs

District	New districts governed by the KVK after division of the district, if applicable	Taluks/Tehsils and/or Mandals under the KVKs jurisdiction
Thiruvarur	-	8 Taluks and 10 Blocks

22.1. 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 2024

S. No	Crop	Area (ha)	Production (MT)	Productivity (Qtl /ha)
1.	Paddy	224313	842695	37.50
2.	BlackGram	10479	5815	4.94
3	Greengram	27421	9004	3.17
4	Gingelly	10393	3021	3.10
5	Cotton	15844	16855	10.32
6	Sugarcane	126	12300	975.63
7	Groundnut	2505	6501	25.02

2.5. Weather data

Rainfall Details - 2024				
S.No	Season	Month	Normal Rainfall (mm)	Rainfall Receipt(mm)
1	Winter	January	48.26	138.0
2		February	42.66	0
		Total	**90.92**	**4.26**
3	Summer	March	16.05	2.20
4		April	12.76	132.32
5		May	35.35	74.36
		Total	**64.16**	**7.57**
6	South West Monsoon	June	26.31	106.2
7		July	72.74	22.05
8		Augusst	93.12	218.30
9		September	151.48	388.47
		Total	**343.65**	**290.1**
10	North East Monsoon	October	205.65	138.0
		November	350.54	0

		December	175.28	**4.26**
		Total	**731.47**	**2.20**
Total Rainfall			**1230.2**	1528.29

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2024)

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 (2024)

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	Valangaiman	Valangaiman	Alangudi	2024	Rice	Recently the Zinc is becoming deficient nutrient in rice fields (24000 Ha)	OFT-Assessment of Biofortification of Zinc in rice variety
2	Valangaiman	Valangaiman	Alangudi	2024	Cotton	Cotton is cultivated in about 16,000 ha in the district. It affected by the sucking pest in establishment stage causes yield losses	OFT-Assessment of IPM modules against sucking pest complex in Cotton
3	Valangaiman	Valangaiman	Alangudi	2024	GM-Daincha	Farmers are unaware of newly released green manure variety	FLD-Demonstration of Daincha variety (TRY 1) in Thiruvarur district
4	Valangaiman	Valangaiman	Alangudi	2024	Rice	Many farmers of Thiruvarur district are not aware of new rice varieties suitable for Thaladi season	FLD-Demonstration of Rice variety (CO 56) suitable for Thaladi season in Thiruvarur district
5	Valangaiman	Valangaiman	Alangudi	2024	Amaranthus	Farmers are unaware of new Amaranthus varieties.	FLD-Demonstration of Amaranthus variety (PLR2) in Thiruvarur district
6	Valangaiman	Valangaiman	Alangudi	2024	Blackgram	Farmers are unaware of the newly released Blackgram variety suitable for rice fallow	FLD-Demonstration of rice fallow Blackgram variety (ADT 7) in Thiruvarur district
7	Valangaiman	Valangaiman	Alangudi	2024	Biomass stove	Lack of improved biomass stove Air pollution an dlow hermal efficiency	Demonstration of Biomass stove for small thermal applications

DFI villages							
1	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Rice	Development of herbicide resistance in rice crop due to continuous usage of same herbicides	OFT-Assessment of weed management practices in transplanted rice
2	Needamangalam	Needamangalam	Vaduvur Pudukkottai	2018	Rice	Zinc Micronutrient in rice field becomes limiting and finally in rice grains are also lacking the zinc nutrition	OFT-Assessment of Biofortification of Zinc in rice variety
3	Needamangalam	Needamangalam	Vaduvur Sathanur,	2018	Lablab	Farmers are unaware of newly released lablab varieties suitable for cultivation in Thiruvarur district	OFT-Assessment of Lablab varieties in Thiruvarur district
4	Needamangalam	Needamangalam	Vaduvur Pudukkottai	2018	Rice	Paddy is cultivated in about 2.2 L.ha in the district. Rice False Smut is reported to cause loss and poor quality grains in Cauvery delta zone.	OFT-Assessment of IDM practices for the management of false smut disease in rice
5	Needamangalam	Needamangalam	Vaduvur Sathanur,	2018	Rice	Paddy is cultivated in about 2.2 L.ha in the district. Combined infection of blast, sheath blight and brown spot diseases are reported to cause loss and poor quality grains in Cauvery delta zone.	OFT-Assessment of IDM practices for the management of combined infection of blast, sheath blight and brown spot diseases in rice
6	Needamangalam	Needamangalam	Vaduvur Sathanur,	2018	Blackgram	Poor weed management in summer irrigated blackgram	FLD-Demonstration of *chemical weed management* in blackgram
7	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Daincha	Farmers are unaware of newly released green manure variety	FLD-Demonstration of Daincha variety (TRY 1) in Thiruvarur district

8	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Rice	Many farmers of Thiruvarur district are not aware of new rice varieties suitable for Thaladi season	FLD-Demonstration of Rice variety (CO 56) suitable for Thaladi season in Thiruvarur district
9	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Groundnut	Farmers are unaware of newly released Groundnut varieties	FLD-Demonstration of Groundnut variety (VRI 10) in Thiruvarur district
10	Needamangalam	Needamangalam	Vaduvur pudukottai	2018	Amaranthus	Farmers are unaware of new Amaranthus varieties. The farmers of three blocks in Thiruvarur district are cultivating greens and vegetables under irrigated condition . They need knowledge and technology input to improve their livelihood	FLD-Demonstration of Amaranthus variety (PLR2) in Thiruvarur district
11	Needamangalam	Needamangalam	Vaduvur Sathanur	2018	Blackgram	Farmers are unaware of the newly released Blackgram variety suitable for rice fallow	FLD-Demonstration of rice fallow Blackgram variety (ADT 7) in Thiruvarur district
12	Needamangalam	Needamangalam	Vaduvur Pudukkottai	2018	Paddy	Stem borer	FLD-Demonstration of IPDM technologies in Paddy
13	Needamangalam	Needamangalam	Vaduvur Sathanur, Vaduvur Pudukkottai	2018	Paddy	Yellow stem borer	FLD-Demonstration of Nano Sci Lure for yellow stem borer management in Rice
14	Needamangalam	Needamangalam	Vaduvur Pudukkottai	2018	Paddy	Wild Boar	FLD-Demonstration of Wild Boar BioRepellent

2.8. Priority/thrust areas

Crop/Enterprise	Thrust area
Rice, Vermi-compost, Compost, Bio mass stove,	Resource management
Black gram, Green gram, Groundnut , Greens, Rice	Varietal evaluation
Rice, Cotton , Coconut , Pulses, Vegetables, Groundnut	IPM, IPDM, Integrated Crop Management, INM
KVK on the Move; Contact Farmers of KVK	Information technology/ICT Tools
Small and large ruminants, Dairy, Poultry	Animal Husbandry/Dairy animal/small ruminant backyard poultry

3. Salient Achievements

Achievements of Mandated activities (1st January 2024 to 31st December 2024)

S. No	Activity	Target	Achievement
1.	Technologies Assessed and refined(No.)	29	29
2.	On-farm trials conducted (No.)	14	14
3.	Frontline demonstrations conducted (No.)	25	25
4.	Farmers trained (in Lakh)	0.020	0.02968
5.	Extension Personnel trained (No.)	270	279
6.	Participants in extension activities (in Lakh)	0.06095	0.1192
7.	Production and distribution of Seed (in Quintal)	300	581.5
8.	Planting material produced and distributed (in Lakh)	50000	80763
9.	Live-stock strains and finger lings produced and distributed (in Lakh)	0.0001	0.0080
10.	Soil samples tested by Mini Soil Testing Kit (No)	150	250
11.	Soil samples tested by Traditional Laboratory (No)	100	275
12.	Water, plant,manure,and other samples tested (No.)	0	30
13.	Mobile agro-advisory provided to farmers (No.)	25	48
14.	No.of Soil Health Cards issued by Mini Soil Testing Kits (No.)	150	250
15.	No.of Soil Health Cards issued by Traditional Laboratory (No.)	100	275

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

- During 2024-25, a total of 14 On-Farm Trials (OFTs) and 25 Frontline Demonstrations (FLDs) were conducted across 314 farmers' fields. These trials and demonstrations introduced new crop varieties and advanced technologies to enhance agricultural productivity. The rice varieties CO 56, TRY 3, and Mappilai Samba; groundnut variety VRI 10; blackgram variety ADT 7; daincha variety TRY 1; amaranthus variety PLR 2; cluster bean variety MDU 2; and Bambusa bamboo were among the key introductions.
- Additionally, livestock-based innovations such as TANUVAS Star Chicken, TANUVAS Grand supplementation, TANUVAS small ruminant mineral mixture, PROBEADS-EC, and TANUVAS-VIC biofoam were demonstrated. New technologies, including chemical weed management in blackgram, Cuscutta weed management in rice fallow greengram, Rice

Bloom management, PPFM application, vegetable production through soil-less culture, and biomass stoves for small-scale thermal applications, were also introduced. Furthermore, plant protection technologies addressing soil-borne diseases in groundnut and chili, an Integrated Pest Management (IPM) module for coconut rugose spiraling whitefly, and a wild boar bio-repellent were implemented.

- As part of KVK's mandate, regular training programs were conducted. A total of 87 training sessions, including on-campus, off-campus, vocational, and sponsored programs, benefitted 3,847 farmers. Additionally, 1,464 extension activities such as method demonstrations, exhibitions, radio talks, diagnostic visits, field days, and television programs were conducted, reaching 11,920 farmers across ten blocks in Thiruvarur District.
- Furthermore, three successful farmers were documented, and three others were formally recognized for their achievements. Various agricultural technologies were disseminated through multiple print media, including 18 full research articles, one book, nine popular articles, three pamphlets/folders, four seminar presentations, four conference papers, one brochure, seven extension literature pieces, 27 technical reports, four newsletters, and 104 daily news articles, ensuring widespread outreach to farmers.
- In soil health initiatives, 525 soil samples were analyzed, and health cards were issued to the respective farmers. Additionally, 30 water samples were tested for 30 farmers.
- Seed production and distribution efforts resulted in 455.11 quintals of paddy seeds from varieties like ADT 59, ADT 58, TPS 5, ADT 54, ADT 51, ADT 57, Mappillai Samba, Rathasali, Kalanamak, Thooyamalli, and Iluppaipoo Samba, benefitting 679 farmers at a total cost of ₹13,38,870.
- Moreover, 80,763 planting materials, including Napier grass CO 5, Vasambu, coconut, brinjal seedlings, and agathi, were produced and distributed to 1,066 farmers, amounting to ₹1,68,943. A total of 9,558.5 kg of bio-products such as Azolla, vermicompost, and crop boosters were produced and distributed to 727 farmers at a value of ₹3,37,079.
- To support farmers with timely advisory services, 48 mobile agro-advisory sessions were conducted, reaching 2,778,816 farmers through the mKisan portal, while 286 advisory services were provided to 1,187,939 farmers via the Kisan Sarathi portal and WhatsApp groups.
- Additionally, 16 awareness programs on natural farming, soil health management, drone spraying, Parthenium eradication, rainwater harvesting (Catch the Rain), and tree plantation were conducted, benefiting 1,049 farmers during the reporting period.

4. TECHNICAL ACHIEVEMENTS

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

No. of OFTs		Number of technologies		Number of locations (Villages)		Total no. of Trials/ Replications / Beneficiaries	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
14	14	29	29	20	20	64	64

FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers / Beneficiaries / Replications	
Targets	Achievement	Targets	Achievement	Targets	Achievement
25	25	49	49	250	250

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	40	42	1200	1580
Rural youth	12	12	350	416
Extn.Functionaries	8	8	270	279
Vocational Skill training	9	12	240	491
Sponsored	11	13	290	481

Extension Activities

Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement
528	1464	6095	11920

Seed Production (q)

Target	Achievement	Distributed to no. of farmers
300	455.5	679

Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
50000	80763	1066

Technology Assessments(OFTs) in Detail

2023-24

OFT 7-Assessment of biological methods for the management of soil borne diseases in chilli

1	Thematic area	:	Disease Management
2	Title	:	Assessment of biological methods for the management of soil borne diseases in chilli
3	Scientists involved	:	Dr.M.Rajesh
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	The soil borne disease causes severe damage in the nursery. High soil, moisture and moderate temperature along with high humidity especially in the rainy season leads to the development of the disease.
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	**TO1:** Application of Bacillus subtilis, Trichoderma asperellum and Purpureocilliumlilacinum as seed treatment, soil application and root dipping **TO2:** Arka Microbial Consortium – Seed treatment (20g/100g) of seeds, soil application and root dipping (20g/lit) **FP:** Soil application of Copper oxy Chloride (2.5 g/lit.) and Carbofuran 5kg/ha granules
7	Critical inputs given: (along with quantity as well as value)	:	**TO1:** Bacillus subtilis, Trichoderma asperellum and Purpureocilliumlilacinum **TO2:** Arka Microbial Consortium
8	Results:	:	

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
Farmers Practice:Soil application of Copper oxy Chloride (2.5 g/lit.) and Carbofuran 5kg/ha granules	3	17.5	39000	70000	2.79	
Technology 1: Application of Bacillus subtilis, Trichoderma asperellum and Purpureocilliumlilacinum as seed treatment, soil application and root dipping		*21.3*	42500	85300	*3.01*	
*Technology 2:*Arka Microbial Consortium – Seed treatment (20g/100g) of seeds, soil application and root dipping (20g/lit)		*20.85*	42000	83100	*2.98*	

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

9	Constraints	:	Nil
10	Feedback of the farmers involved	:	Farmers felt that concentrate specific application of bio control agents at specified development stages rather than Consortium
11	Feed back to the scientist who developed the technology	:	More research is needed on Consortium

2024-25

OFT 1- Assessment of Bio fortification of Zinc in rice variety

1	Thematic area	:	Crop production and Management
2	Title	:	Assessment of Bio fortification of Zinc in rice variety
3	Scientists involved	:	Dr.V.Kaunakaran
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Zinc Micronutrient in rice field becomes limiting and finally in rice grains are also lacking the zinc nutrition

6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: Biofortification in Rice variety TPS 5 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 TO2: Biofortification in Rice variety ASD 21 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 FP: Non adoption of basal and foliar application of micronutrients in rice crop
7	Critical inputs given: (along with quantity as well as value)	:	TO1: $ZnSO_4$ TO2: $ZnSO_4$
8	Results:	:	• Biofortification in Rice variety TPS 5 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 recorded higher yield of 6320 kg/ha whereas ASD 21 Rice variety recorded 5956 kg/ha. In case of farmers practice, non application of Zinc micro nutrient resulted inferior yield in rice • The higher zinc concentration of 40.05 mg/kg of milled grain is recorded in rice variety TPS 5 and it was followed by the rice variety ASD 21, which recorded zinc concentration of 35.87 mg/kg of milled grain. The lowest zinc concentration of 28.90 mg/kg of milled grain is recoded in farmers practice

Table: 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**
Farmers Practice:Non adoption of basal and foliar application of micronutrients in rice crop	5	50.24	40000	70528	2.76	
Technology 1: Biofortification in Rice variety TPS 5 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		63.20	*48000*	91040	2.90	
*Technology 2:*Biofortification in Rice variety ASD 21 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		*59.56*	*48000*	83032	2.73	

*

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

9	Constraints	:	Poor awareness on micronutrient and mobilization of Zinc Sulphate
10	Feedback of the farmers involved	:	Without much of knowledge on the micronutrients inputs for rice cultivation which is the need of hour. Generally rice are less in yielding without micronutrient and potential but demand from consumer side is more for biofortified rice rice. Farmers are very much convinced to utilize the Zinc Sulphate to tap the yield advantage along with biofortification
11	Feed back to the scientist who developed the technology	:	NIL

OFT 2- Assessment of weed management practices in transplanted rice

1	Thematic area	:	Weed management
2	Title	:	Assessment of weed management practices in transplanted rice
3	Scientists involved	:	Dr.V.Kaunakaran
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Weed management is major task in irrigated transplanted rice crop
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: Bispyribac sodium @ 40 g a.i /ha on 10-15 DAT + Hand weeding on 45 DAT TO2: Penoxsulam + Cyhalofop butyl 150 g a.i/ha (25 g + 125 g) on 10-15 DAT + Hand Weeding on 45 DAT FP: Non adoption of timely and proper weed management to tap the potential yield
7	Critical inputs given: (along with quantity as well as value)	:	TO1: Bispyribac sodium TO2: Penoxsulam + Cyhalofop butyl
8	Results:	:	Application of Penoxsulam + Cyhalofop butyl 150 g a.i/ha (25 g+125 g) herbicide on 10-15 DAT as early post emergence herbicide + Hand Weeding on 45 DAT effectively controlled both monocot and dicot weeds in rice and also recorded higher yield of 6125 kg/ha. It was closely followed by the application of Bispyribac sodium @ 40 g a.i /ha on 10-15 DAT + Hand weeding on 45 DAT recorded 5845 kg/ha.

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C ratio*	*Data on Other performance indicators**
*Farmers Practice:*Non adoption of timely and proper weed management to tap the potential yield	5	49.85	39000	113085	65685	2.68	
*Technology 1:*Bispyribac sodium @ 40 g a.i /ha on 10-15 DAT + Hand weeding on 45 DAT		*61.25*	*44000*	128625	84625	2.92	
*Technology 2:*Penoxsulam + Cyhalofop butyl 150 g a.i/ha (25 g + 125 g) on 10-15 DAT + Hand Weeding on 45 DAT		*58.45*	*45000*	122745	77745	2.73	

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

9	Constraints	:	Poor awareness on herbicide availability
10	Feedback of the farmers involved	:	Happy to adopt herbicides due to labour scarcity at peak manual weeding period resulting in yield reduction
11	Feed back to the scientist who developed the technology	:	Nil

OFT 3- Assessing the performance of different sources of gypsum on rice in sodic soil in Thiruvarur

1	Thematic area	:	Soil Health Management
2	Title	:	Assessing the performance of different sources of gypsum on rice in sodic soil in Thiruvarur
3	Scientists involved	:	SMS (SS) and PC
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Thiruthuraipoondi and Needamangalam Poor crop growth due to salinity , low yield in existing crop (Rice) and low income
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO-1-Gypsum as per GR TO-2-Bactogypsum FP-Without reclamation
7	Critical inputs given: (along with quantity as well as value)	:	**TO1:** Gypsum (@ 2.5 t/ha) **TO2:** Bactogypsum (@ 2.5 t/ha)
8	Results:	:	

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
Farmers Practice: Without reclamation	5	40.48	75760	122587	46827	1.62	No. of productive tillers = 14.35 No.of grains /panicle =159
Technology 1: Gypsum as per GR		44.62	79870	148829	68959	1.86	No. of productive tillers = 16.2 No.of grains /panicle =173
*Technology 2:*Bactogypsum		48.57	92780	*178479*	85699	1.92	No. of productive tillers = 17.1 No.of grains /panicle =199

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

9	Constraints	:	Cost of bacto gypsum is hi than normal gypsym
10	Feedback of the farmers involved	:	Crop withstand in the salt stress condition due tobacto-gypsum applicationand the grain yield stabilized
11	Feed back to the scientist who developed the technology	:	-

OFT 4-Assessment of saline tolerant Rice varieties

1	Thematic area	:	Varietal evaluation
2	Title	:	Assessment of saline tolerant Rice varieties
3	Scientists involved	:	D.C.Prabakaran
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Lower yield in rice of saline affected area
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: TRY 5 TO2: CSR 56 FP: Local variety
7	Critical inputs given: (along with quantity as well as value)	:	TO1:30 kg/trial=Rs. 1800/trial(Total=5400) TO2:30 kg / trail =1050/trial (Total=3150/-)
8	Results:	:	Variety CSR 56 gave higher yield of 6 tones / ha. It gave 17 percent yield increase than TRY 5 (5100 kg / ha)

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
Farmers Practice: Local variety	5	39	77394	78000	606	1.01	120 days
Technology 1: TRY 5		*51*	*80094*	1,02,000	*21906*	*1.27*	*115 days*
Technology 2: CSR 56		*60*	*82289*	120000	*37711*	*1.46*	*120 days*

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

9	Constraints	:	-
10	Feedback of the farmers involved	:	Performs well in saline soil suitable for Navarai and Kuruvai seasons
11	Feed back to the scientist who developed the technology	:	Very good variety for delta regions

OFT 5- Assessment of organic nutrient management techniques in traditional rice variety - Mappilai samba

1	Thematic area	:	Organic nutrient management
2	Title	:	Assessment of organic nutrient management techniques in traditional rice variety - Mappilai samba
3	Scientists involved	:	Dr.V.Kaunakaran
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Non adoption of proper organic based nutrient management in traditional rice
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: ➢ Apply Azospirillum @ 2.5 kg/ha mixed with 25 kg FYM 30 min before sowing. ➢ Basal application of Vermicompost 1000 kg/ha. ➢ Basal application Neem seed cake @150 kg/ha, Top dressing @ 60 kg/ha on30 DAT; Groundnut cake @ 100 kg/ha, Top dressing @ 25 kg/ha on 30 DAT. ➢ Spray Sanjeevani mixture 1st and 2nd after weeding. ➢ Spray Panchakavya 3 % during tillering and Booting stage. ➢ Soil application of Amirthakaraisal @ 25 lit/ha on 15 DAT. ➢ Three times Vermiwash (10%) sprayings at 15 DAT, 35 DAT and Flowering Stages TO2: ➢ Seedling root dipping in Azospirillum and Phosphorus solubilizing bacteria @ 600 g/ha seedlings. ➢ Soil applicaton of Vermicompost @ 2 t/ha at last ploughing. ➢ Azospirillum and Phosphorus solubilizing bacteria @ 2-3 kg/ha mixted with 25 kg Vermicompost @ 2 t/ha at just before planting. ➢ Apply Azolla @ 1t/ha 7-10 DAP, Blue green algae @ 10 kg/ha 10 DAP incorporate after 3 weeks. FP: Non adoption of proper organic and bio-fertilizers to tap the potential yield
7	Critical inputs given: (along with quantity as well as value)	:	Azospirillum and Phosphorus solubilizing bacteria @ 2-3 kg/ha(Remaining organic inputs were arranged by farmers themselves)
8	Results:	:	The organic farmers adopted TNAU technology obtained higher yield of 1895 kg/ha, whereas IIRR technology recorded 1678 kg/ha.

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
Farmers Practice: Non adoption of proper organic and bio-fertilizers to tap the potential yield	5	12.25	42000	122000	*56000*	2.33	
Technology 1: ➢ Apply Azospirillum @ 2.5 kg/ha mixed with 25 kg FYM 30 min before sowing. ➢ Basal application of Vermicompost 1000 kg/ha. ➢ Basal application Neem seed cake @150 kg/ha, Top dressing @ 60 kg/ha on30 DAT; Groundnut cake @ 100 kg/ha, Top dressing @ 25 kg/ha on 30 DAT. ➢ Spray Sanjeevani mixture 1st and 2nd after weeding. ➢ Spray Panchakavya 3 % during tillering and Booting stage. ➢ Soil application of Amirthakaraisal @ 25 lit/ha on 15 DAT. ➢ Three times Vermiwash (10%) sprayings at 15 DAT, 35 DAT and Flowering Stages		*18.95*	*49500*	*151600*	*102100*	*3.06*	

Technology 2: ➢ Seedling root dipping in Azospirillum and Phosphorus solubilizing bacteria @ 600 g/ha seedlings. ➢ Soil applicaton of Vermicompost @ 2 t/ha at last ploughing. ➢ Azospirillum and Phosphorus solubilizing bacteria @ 2-3 kg/ha mixted with 25 kg Vermicompost @ 2 t/ha at just before planting. ➢ Apply Azolla @ 1t/ha 7-10 DAP, Blue green algae @ 10 kg/ha 10 DAP incorporate after 3 weeks		*15.11*	*51000*	*120880*	*69880*	*2.37*	

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

9	Constraints	:	Mobilization of organic based inputs
10	Feedback of the farmers involved	:	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.
11	Feed back to the scientist who developed the technology	:	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.

OFT 6-Assessment of Potassium supplementation through low cost approach in Rice

1	Thematic area	:	Nutrient management
2	Title	:	Assessment of Potassium supplementation through low cost approach in Rice
3	Scientists involved	:	Dr.C.Prabakaran
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Low availability and high cost of the chemical potassium fertilizers, and poor zinc use efficiency by the rice. Therefore, the assessment of suitable potash releasing bacteriais essential for increasing of the K use efficiency and higher yield in rice
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	**TO1**: Soil application of Paenibacillus mucilaginous (KRB-9)@ 500ml/ha **TO2:**Soil application of Natural Potash@ 150 kg/Ha FP: Potash application
7	Critical inputs given: (along with quantity as well as value)	:	**TO1:** Paenibacillus mucilaginous (KRB-9)@ 1 lit/ha **TO2:**Kribco Natural Potash 60 kg per acre
8	Results:	:	Application of Natural potash increase the yield up to 22% than control

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
Farmers Practice: Potash application	5	51.0	77394	1,02,000	24606	1.32	Soil Available K 290 kg
Technology 1: Soil application of Paenibacillus mucilaginous (KRB-9)@ 500ml/ha		62.5	*77594*	*1,25,000*	*47406*	*1.61*	Soil Available K 290 kg
*Technology 2:*Soil application of Natural Potash@ 150 kg/Ha		*58.75*	*78894*	*1,17,500/-*	*38606*	*1.49*	*Soil available K -300 kg*

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

9	Constraints	:	Unavailability of biopotash in the market
10	Feedback of the farmers involved	:	Potash solublizing bacterial is also good since it is bio-based.
11	Feed back to the scientist who developed the technology	:	Very good fertilizer

OFT 7- Assessment of IDM practices for the management of false smut disease in rice

1	Thematic area	:	Integrated Disease Management
2	Title	:	Assessment of IDM practices for the management of false smut disease in rice
3	Scientists involved	:	Dr. R. Thilagavathi
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Rice is cultivated in about 2.2 L.ha in the district. Rice False Smut is reported to cause yield loss and poor quality grains in Cauvery delta zone
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: Seed treatment with carbendazim 2.0g/kg of seeds. Two sprays with Propiconazole 25 EC @ 500 ml/ha (or) Copper hydroxide 77 WP @ 500 g/ac at one week before boot leaf and during flowering stages TO2: • Spraying of Fluxapyroxad 62.5% + Epoxyconazole 62.5% (300 ml/ ac) followed by Trifloxystrobin 25% + Tebuconazole 50% (80 g/ac) OR • Two sprays of Trifloxystrobin 25% + Tebuconazole 50% (80 g/ac) at booting stage [80 days after transplanting (DAT) and post flowering (100 DAT) stage FP: Indiscriminate use of Fungicides
7	Critical inputs given: (along with quantity as well as value)	:	TO1: carbendazim, Propiconazole TO2: Trifloxystrobin + Tebuconazole
8	Results:	:	

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C ratio*	*Data on Other performance indicators**
Farmers Practice: Indiscriminate use of Fungicides	5	59.74	37533	143376	105843	3.82	
Technology 1: Seed treatment with carbendazim 2.0g/kg of seeds. Two sprays with Propiconazole 25 EC @ 500 ml/ha (or) Copper hydroxide 77 WP @ 500 g/ac at one week before boot leaf and during flowering stages		63.23	34642	151752	117110	4.38	
Technology 2: • Spraying of Fluxapyroxad 62.5% + Epoxyconazole 62.5% (300 ml/ ac) followed by Trifloxystrobin 25% + Tebuconazole 50% (80 g/ac) OR • Two sprays of Trifloxystrobin 25% + Tebuconazole 50% (80 g/ac) at booting stage [80 days after transplanting (DAT) and post flowering (100 DAT) stage		61.42	36273	147408	111135	4.06	

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

9	Constraints	:	Climate plays a major role in the spread and multiplication of the false smut disease. Actual mode of infection not yet revealed.
10	Feedback of the farmers involved	:	They showed interest to follow the seed treatment and prophylactic spray of above mentioned chemicals (Tech. 1) for the management of false smut disease in future.
11	Feed back to the scientist who developed the technology	:	In the technology 1, single prophylactic spray will be enough. One more spray may be a curative one.

OFT 8- Assessment of IDM practices for the management of combined infection of blast, sheath blight and brown spot diseases in rice

1	Thematic area	:	Integrated Disease Management
2	Title	:	Assessment of IDM practices for the management of combined infection of blast, sheath blight and brown spot diseases in rice
3	Scientists involved	:	Dr. R. Thilagavathi
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Rice is cultivated in about 2.2 L.ha in the district. Combined infection of blast, sheath blight and brown spot diseases are reported to cause loss and poor quality grains in Cauvery delta zone
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: Spray azoxystrobin 16.7 % + tricyclazole 33.3% SC @ 500 ml/ha after observing initial infection of the disease TO2: • Seed treatment at 2.0 g/kg seed with Captan or Carbendazim or Thiram or Tricyclazole • Systemic fungicides such as Pyroquilon and Tricyclazole are possible chemicals for controlling the disease FP: Indiscriminate use of Fungicides
7	Critical inputs given: (along with quantity as well as value)	:	TO1: Azoxystrobin + tricyclazole TO2: Carbendazim, Tricyclazole, Pyroquilon
8	Results:	:	

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C ratio*	*Data on Other performance indicators**
Farmers Practice: Indiscriminate use of Fungicides	5	57.5	39920	138000	98080	3.46	
Technology 1: Spray azoxystrobin 16.7 % + tricyclazole 33.3% SC @ 500 ml/ha after observing initial infection of the disease		59.33	35530	142392	106862	4.01	
Technology 2: • Seed treatment at 2.0 g/kg seed with Captan or Carbendazim or Thiram or Tricyclazole • Systemic fungicides such as Pyroquilon and Tricyclazole are possible chemicals for controlling the disease		57.42	37000	137808	100808	3.72	

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

9	Constraints	:	Nil
10	Feedback of the farmers involved	:	They felt that the tech 1 with single spray successfully controlled the foliar diseases
11	Feed back to the scientist who developed the technology	:	Tech 1 was good

OFT 9- Assessing the performance of different millets in salt affected soil in Thiruvarur district

1	Thematic area	:	Alternate cropping
2	Title	:	Assessing the performance of different millets in salt affected soil in Thiruvarur district
3	Scientists involved	:	Dr.V.Dhanushkodi
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Muthupettai block located near coastal belt and covered about 900 ha by soil salinity.
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO-1-Finger millet TO-2-Banyard millet TO-3-Foxtail millet FP-Rice BPT 5204
7	Critical inputs given: (along with quantity as well as value)	:	TO-1-Finger millet (seed @ 5 kg/ha) TO-2-Banyard millet (seed @ 5 kg/ha) TO-3-Foxtail millet (seed @ 5 kg/ha)
8	Results:	:	

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
Farmers Practice: Rice BPT 5204	5	38.42	48520	84524	36004	1.74	No. of tillers per plant 13.4
Technology 1: Finger millet		*22.80*	37900	114000	76100	3.01	No. of tillers per plant 3.2
*Technology 2:*Banyard millet		*14.2*	37000	85200	48200	2.30	No. of tillers per plant 2.9
Technology 3: Foxtail millet		*18.8*	37450	112800	75350	3.01	No. of tillers per plant 3.1

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

9	Constraints	:	Processing unit must be established to follow millet cultivation
10	Feedback of the farmers involved	:	• Ragi TRY 1 performed well • Availability of seeds will be useful to adopt millet cultivation. • Awareness on marketing strategies and value addition are needed
11	Feed back to the scientist who developed the technology	:	• More training may imparted to create awareness. • Value additional technologies need to be popularized

OFT 10- Assessment of Lablab varieties in Thiruvarur district

1	Thematic area	:	Varietal evaluation
2	Title	:	Assessment of Lablab varieties in Thiruvarur district
3	Scientists involved	:	Dr.S.Arulselvi
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Farmers are unaware of newly released lablab varieties suitable for cultivation in Thiruvarur district
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: Bush Lablab CO 16 TO2: Arka Amogh FP: Local variety
7	Critical inputs given: (along with quantity as well as value)	:	TO1: Seeds TO2: Seeds
8	Results:	:	• Lablab variety Arka Amogh matured earlier than CO16. • CO 16 produced higher number of pods (37/plant) when compared to Arka Amogh (30/plant) • Higher pod yield was recorded in CO 16 (184q/ha) than in Arka Amogh • CO 16 was found with resistance to sucking pest when compared to Arka amogh • Lablab variety, CO16 was preferred by the farmers since it yielded more with resistance to pest and diseases

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Days to maturity*
*Farmers Practice:*Local variety	5	152	370000	699200	329200	1.89	73
Technology 1: Bush Lablab CO 16		184	370000	846400	476400	2.29	65
*Technology 2:*Arka Amogh		161	370000	740600	370600	2.0	71

9	Constraints	:	Lack of awareness on the choice of suitable lablab variety for marketing
10	Feedback of the farmers involved	:	Lablab variety Arka Amogh was preferred by the farmers since it yielded more with early in duration.
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.

OFT 11-Assessment of high yielding varieties of Red Amaranthus CO 6 and KAU Vaika / Arka Arunima

1	Thematic area	:	Varietal evaluation
2	Title	:	Assessment of high yielding varieties of Red Amaranthus CO 6 and KAU Vaika / Arka Arunima
3	Scientists involved	:	Dr.C.Prabakaran
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Iron deficiency
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: Co 6 Amaranhus variety TO2: KAU Vaika / Arka Arunima FP: Local variety
7	Critical inputs given: (along with quantity as well as value)	:	**TO1:**100g per trail: Rs 300/trial **TO2:**100g per trail Rs. 300 per trial
8	Results:	:	Co 6 Yields 12.6 tonnes/ha in 30-35 days

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
*Farmers Practice:*Local variety	5	25	40000	50000	10,000	1.25	35 days
Technology 1: Co 6 Amaranhus variety		*35*	40000	*70000*	*30000*	*1.75*	*35 days*
*Technology 2:*KAU Vaika / Arka Arunima		*30*	40000	*60000*	*20000*	*1.5*	*35 days*

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

9	Constraints	:	
10	Feedback of the farmers involved	:	Increases our life span, supplies antioxidants and it is nitrate free
11	Feed back to the scientist who developed the technology	:	Good appearance alleviates iron deficiency

OFT 12- Assessment of IPM modules against sucking pest complex in Cotton- In progress

OFT 13-Assessment of the effectiveness of different herbal anthelmintics in small ruminants

1	Thematic area	:	Health management
2	Title	:	Assessment of the effectiveness of different herbal anthelmintics in small ruminants
3	Scientists involved	:	Dr.M.Sabapathi
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Poor growth
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: Wormivet powder-Herbal Broad spectrum anthelmintics TO2: Hermokil – herbal anthelmintics powder FP: Irregular deworming with albendazole
7	Critical inputs given: (along with quantity as well as value)	:	**TO1: Wormivet powder** **TO2:** Hermokil –**powder**
8	Results:	:	Both performed well

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
*Farmers Practice:*Irregular deworming with albendazole	5	25.4	3000	7620	4320	2.44	
Technology 1: Wormivet powder-Herbal Broad spectrum anthelmintics		32.5	*3000*	*9750*	*6750*	*3.25*	
*Technology 2:*Hermokil – herbal anthelmintics powder FP: Irregular deworming with albendazole		32.5	*3000*	*9750*	*6750*	*3.25*	

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

9	Constraints	:	Local unavailability
10	Feedback of the farmers involved	:	Good to use
11	Feed back to the scientist who developed the technology	:	Local availability

OFT 14-Assessment of Cumbu napier hybrid fodder varieties

1	Thematic area	:	Forage production
2	Title	:	Assessment of Cumbu napier hybrid fodder varieties
3	Scientists involved	:	Dr.M.Sabapathi
4	Details of farming situation	:	Irrigated
5	Problem definition / description: (one paragraph)	:	Poor yield and growth
6	Technology Assessed: (give full details of technology as well as farmers practice)	:	TO1: Susthira tall, High tillering hybrid variety with long broad leaves TO2: CO5 FP: CO3 &CO4
7	Critical inputs given: (along with quantity as well as value)	:	**TO1:** Susthira tallfodder strips **TO2:**Co5 fodder strips
8	Results:	:	

Table: Performance of the technology

Technology Option	*No.of trials*	*Yield (q/ha)*	*Gross cost (Rs./ha)*	*Gross Return (Rs/ha)*	*Net Returns (Rs./ha)*	*B:C*	*Data on Other performance indicators**
Farmers Practice:CO3 &CO4	5	120	40000	120000	80,000	3	
Technology 1: Susthira tall, High tillering hybrid variety with long broad leaves		*40*	30000	*40000*	*10,000*	*1.33*	
Technology 2:CO5		*180*	40000	*180000*	*1,40,000*	*4.5*	

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

9	Constraints	:	Germination in Susithra, Water logging at rainy season for Co5
10	Feedback of the farmers involved	:	Destroyed at rainy season
11	Feed back to the scientist who developed the technology	:	Water loddging tolerance variety or technology

Frontline Demonstrations in Detail

2023-24

FLD 8- Demonstration of rice fallow greengram variety (VBN 6) in Thiruvarur district

Crop	:	Greengram
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	Demonstration of rice fallow greengram variety (VBN 6) in Thiruvarur district
Season and year	:	Rabi, 2024
Farming situation	:	Rice fallow
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):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	-
Feedback from farmers	:	Farmers accepted this variety
Feedback of the Scientist	:	It is suitable for cultivation under rice fallow. It has 70 to 75 days duration. Grain yield potential is 760kg / ha
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	• Greengram VBN 6 suitable for Rice fallow condition matured in 60 days whereas ADT 3 matured in 70-75 days • The seeds size of VBN 6 was higher than ADT 3 • The grain yield recorded by VBN 6 was found to be higher (7.15 q/ha) than ADT 3 (5.20 q/ha)

Particulars	Check	Demo
Yield (Q/ha)	5.2	7.15
Gross cost (Rs/ha)	20000	20000
Gross return (Rs/ha)	31200	42900
Net return(Rs/ha)	11200	22900
BCR	1.56	2.15
Other parameters –	-	-

FLD 9- Demonstration of TNAU Vigourplus Seed booster for Groundnut and Black gram

Crop	:	Groundnut and Black gram
Thematic area	:	Resource management
Technology demonstrated	:	Demonstration of TNAU Vigourplus Seed booster for Groundnut and Black gram
Season and year	:	Rabi, 2024
Farming situation	:	Rice fallow
Source of fund	:	ICAR
No of locations (Villages):	:	5
No. of demonstrations (replications/farmers/beneficiaries):	:	10 (Five each for groundnut and blackgram)
No of SC/ST Farmers and women farmers:	:	2
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	-
Feedback from farmers	:	Application of TNAU Vigourplus Seed booster improved the test weight and yield. It is also noticed that the poorly filled grains was reduced prominently
Feedback of the Scientist	:	It has been taken for further large scale demonstration in CDZ
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Leaflet on crop boosters was prepared and distributed among the farming community

Particulars	Groundnut		Blackgram	
	Check	Demo	Check	Demo
Yield (Q/ha)	21.42	26.58	6.20	8.15
Gross cost (Rs/ha)	45000	51000	26000	32000
Gross return (Rs/ha)	102960	127584	45880	60310
Net return(Rs/ha)	57960	76584	19880	28310
BCR	2.29	2.50	1.76	1.88
Other parameters –	-	-		

FLD 10-Demonstration of biological methods for the Management of Soil-borne Diseases in Groundnut

Crop	:	Groundnut
Thematic area	:	
Technology demonstrated	:	Demonstration of biological methods for the Management of Soil-borne Diseases in Groundnut
Season and year	:	January, 2024
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):	:	2
Actual area (ha)	:	2
Justification for shortfall if any:	:	-
Feedback from farmers	:	Does not have any chemical residue in the food chain
Feedback of the Scientist	:	May be continued during next year
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Training and Demonstration, Advisory services

Particulars	Check	Demo
Yield (Q/ha)	21	22.80
Gross cost (Rs/ha)	46000	47000
Gross return (Rs/ha)	126000	136800
Net return(Rs/ha)	81000	85800
BCR	2.76	2.83
Other parameters –		

FLD 11- Demonstration of CO 17 cotton variety suitable for high density planting in Thiruvarur district

Crop	:	Cotton
Thematic area	:	Varietal demonstration
Technology demonstrated	:	Demonstration of CO 17 cotton variety suitable for high density planting in Thiruvarur district
Season and year	:	February, 2024
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):	:	2
Actual area (ha)	:	2
Justification for shortfall if any:	:	-
Feedback from farmers	:	• Recorded cotton seed yield of 2350 kg / ha. • Farmers reported that the yield of CO17 cotton was significantly lower compared to private hybrids. • Farmers faced problem in mechanical weeding as it raised in high density planting
Feedback of the Scientist	:	Compact and erect plant type suitable for cultivation under Rice fallow, winter rainfed and summer irrigated tracts of Tamil Nadu. Average seed cotton yield is 2505 kg / ha. It is moderately resistant to root rot and Alternaria leaf blight
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	• Training on seed production technology in cotton was conducted on 12.01.2024 at Alangudi village for 20 farmers • Newspaper messages on cotton variety suitable for Rice fallow were published in Dinakaran daily on 08.02.2024

Particulars	Check (Private variety)	Demo
Yield (Q/ha)	55.0	23.5
Gross cost (Rs/ha)	143000	73000
Gross return (Rs/ha)	330000	141000
Net return(Rs/ha)	187000	68000
BCR	2.31	1.93
Other parameters –	-	-

2024-25

FLD 1- Demonstration of Rice variety (CO 56) suitable for Thaladi season in Thiruvarur district

Crop	:	Rice
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	Demonstration of Rice variety (CO 56) suitable for Thaladi season in Thiruvarur district
Season and year	:	Rabi, 2024 (Samba)
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):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	-
Feedback from farmers	:	Farmers preferred CO 56 rice variety due to its fine grain type and high yielding
Feedback of the Scientist	:	CO 56 has duration of 130 to 135 days and is suitable for cultivation during Thaladi season. It has a yield potential of 6372 kg / ha
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	• Off campus training on "ICM in Samba and Thaladi rice cultivation" was conducted to 23 number of farmers and farm women at Vaduvur Sathanur on 25.10.2024 • Newspaper messages on "High yielding rice varieties" in Thinakaran daily on 30.05.2024 • Newspaper messages on "Rice varieties suitable for Thaladi season" in Thinakaran daily on 18.09.2024 • Conducted field day on 18.02.2025 at Abivirutheeshwaram village and 15 farmers participated and benefited

Particulars	Check	Demo
Yield (Q/ha)	54.25	61.50
Gross cost (Rs/ha)	45000	45000
Gross return (Rs/ha)	124775	141450
Net return(Rs/ha)	79775	96450
BCR	2.77	3.14
Other parameters –	-	Fine grain

FLD 2- Demonstration of ICM in Rice TRY 3 in Saline soil

Crop	:	Rice
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	Demonstration of ICM in Rice TRY 3 in Saline soil

Season and year	:	Rabi 2024
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:	:	-
Feedback from farmers	:	Less pest and disease incidence
Feedback of the Scientist	:	Produced more number of tillers per plant and more grain yield
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Field day - 1 Farmers training- 2 nos AIR -1 programme Training to Extension Functionaries-1

Particulars	Check	Demo
Yield (Q/ha)	36.12	44.21
Gross cost (Rs/ha)	55700	38150
Gross return (Rs/ha)	79464	75157
Net return(Rs/ha)	23764	37007
BCR	1.43	1.97
Other parameters –		Recorded more number of productive tillers (19nos.)

FLD 3- Demonstration of TNAU Rice Bloom for Higher yield in rice

Crop	:	Rice
Thematic area	:	Nutrient Management
Technology demonstrated	:	Demonstration of TNAU Rice Bloom for Higher yield in rice
Season and year	:	Rabi 2024
Farming situation	:	Borewell irrigated / Canal irrigation
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:	:	-
Feedback from farmers	:	Application of Rice bloom at flowering stage improved the test weight and yield. It is also noticed that the infilled grains was reduced prominently
Feedback of the Scientist	:	It has been taken for further large scale demonstration in CDZ
Extension activities on the FLD	:	Leaflet on crop boosters was prepared and distributed among the farming community

Particulars	Check	Demo
Yield (Q/ha)	51.30	62.58
Gross cost (Rs/ha)	45500	51000
Gross return (Rs/ha)	125685	153321
Net return(Rs/ha)	80185	102321
BCR	2.76	3.01
Other parameters –		

FLD 4- Demonstration GypKit in salt affected sodic soil of Thiruvarur district

Crop	:	Rice
Thematic area	:	Soil Health Management
Technology demonstrated	:	Demonstration GypKit in salt affected sodic soil of Thiruvarur district
Season and year	:	Rabi 2024
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	
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:	:	-
Feedback from farmers	:	Easy and quick method compared to traditional analysis
Feedback of the Scientist	:	Very useful and need to be popularize
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Farmers training- 2 nos AIR -1 programme Training to Extension Functionaries-1

Particulars	**Check**	**Demo**
Yield (Q/ha)	39.7	47.0
Gross cost (Rs/ha)	44870	50410
Gross return (Rs/ha)	87340	103400
Net return(Rs/ha)	42470	52990
BCR	1.95	2.05
Other parameters –	No. of productive tillers / hill = 17.2	No. of productive tillers / hill = 19.5

FLD 5-Demonstration of PPFM application in Rice under stress conditions

Crop	:	Rice
Thematic area	:	Water conservation
Technology demonstrated	:	Demonstration of PPFM application in Rice under stress conditions
Season and year	:	Rabi 2024
Farming situation	:	Irrigated and Rained
Source of fund	:	ICAR
No of locations (Villages):	:	5
No. of demonstrations	:	10

(replications/farmers/beneficiaries):		
No of SC/ST Farmers and women farmers:	:	3
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	-
Feedback from farmers	:	It induces immunity against diseases
Feedback of the Scientist	:	It also works under flooding condition also
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Training t extension functionaries

Particulars	Check	Demo
Yield (Q/ha)	55	61.45
Gross cost (Rs/ha)	77394	78394
Gross return (Rs/ha)	1,10,000	1,22,900
Net return(Rs/ha)	32606	44506
BCR	1.42	1.57
Other parameters –	-	-

FLD 6- Demonstration of IPDM technologies in Rice

Crop	:	Rice
Thematic area	:	IPDM
Technology demonstrated	:	Demonstration of IPDM technologies in Rice
Season and year	:	Rabi 2024
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:	:	3
Area proposed (ha):	:	1
Actual area (ha)	:	1
Justification for shortfall if any:	:	-
Feedback from farmers	:	They felt that installation of sticky traps was simple compared to other technologies. Not possible to follow all the technologies in controlling pest and diseases of paddy
Feedback of the Scientist	:	Technologies are good and eco-friendly
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Farmers training, training to Extension Functionaries

Particulars	Check	Demo
Yield (Q/ha)	50.8	54.4
Gross cost (Rs/ha)	36877	34233
Gross return (Rs/ha)	111760	119680
Net return(Rs/ha)	74883	85447

BCR	3.03	3.50
Other parameters –		

FLD 7- Demonstration of Nano Sci Lure for yellow stem borer management in Rice

Crop	:	Rice
Thematic area	:	IPM
Technology demonstrated	:	Demonstration of Nano Sci Lure for yellow stem borer management in Rice
Season and year	:	Rabi 2024
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):	:	1
Actual area (ha)	:	1
Justification for shortfall if any:	:	-
Feedback from farmers	:	Easy to install Nano Sci Lure. Hoever, not available in the local markets
Feedback of the Scientist	:	Efficient technology
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Farmers training, media coverage, training to Extension Functionaries

Particulars	Check	Demo
Yield (Q/ha)	49.5	53.7
Gross cost (Rs/ha)	36223	35233
Gross return (Rs/ha)	108900	118140
Net return(Rs/ha)	72677	82907
BCR	3.01	3.35
Other parameters –		

FLD 8-Demonstration of Wild Boar BioRepellent

Crop	:	Rice
Thematic area	:	Plant Protection-Wild Boar
Technology demonstrated	:	Demonstration of Wild Boar BioRepellent
Season and year	:	Rabi 2024
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	6
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	3
Area proposed (ha):	:	1
Actual area (ha)	:	1
Justification for shortfall if any:	:	-
Feedback from farmers	:	It works well in the field

Feedback of the Scientist	:	It has to be developed for other wild animals birds and reptiles
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Farmers training, Demonstration, Awareness through Social media

Particulars	Check	Demo
Yield (Q/ha)	**57.85**	**65.24**
Gross cost (Rs/ha)	45500	51000
Gross return (Rs/ha)	138840	156576
Net return(Rs/ha)	93340	105576
BCR	3.05	3.07
Other parameters –		

FLD 9- Demonstration of Groundnut variety (VRI 10) in Thiruvarur district

Crop	:	Groundnut
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	Demonstration of Groundnut variety (VRI 10) in Thiruvarur district
Season and year	:	Rabi, 2024
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):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	-
Feedback from farmers	:	Farmers preferred VRI 10 groundnut variety due to its high yield and short duration
Feedback of the Scientist	:	VRI 10 groundnut is a short duration variety having 90-95 days duration with yield potential of 2492 kg / ha. It is a bunch variety with oil content of 46 to 48%
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	• On-campus training on "ICM in Groundnut" was conducted on 02.12.2024 for 25 number of farmers at KVK, Thiruvarur • Sent bulk SMS to the farmers through group WhatsApp

Particulars	Check	Demo
Yield (Q/ha)	20.8	22.4
Gross cost (Rs/ha)	187200	201600
Gross return (Rs/ha)	65000	65000
Net return(Rs/ha)	122200	136600
BCR	1.65	1.68
Other parameters –	-	-

FLD 10- Demonstration of rice fallow Blackgram variety (ADT 7) in Thiruvarur district

Crop	:	Blackgram
Thematic area	:	Varietal Demonstation
Technology demonstrated	:	Demonstration of rice fallow Blackgram variety (ADT 7) in Thiruvarur district
Season and year	:	January/February 2025
Farming situation	:	Rice fallow
Source of fund	:	ICAR
No of locations (Villages):	:	6
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:	:	-
Feedback from farmers	:	Farmers accepted ADT 7 blackgram
Feedback of the Scientist	:	Blackgram variety ADT 7 is suitable for rice fallow conditions having 65 – 70 days duration and 724kg / ha yield capacity
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	• Newspaper messages on "High yielding pulse varieties suitable for rice fallow" in Thinamalar daily on 17.12.2024 • Conducted a training on 'Newly released varieties of TNAU' to the 35 extension personnels on 02.07.2024 • Conducted skilled and vocational training on "Seed production technologies in Pulses" to 30 farmers for three days from 29.07.2024 to 31.07.2024 • Conducted training on "ICM in rice fallow Blackgram & Greengram" to 35 farmers on 10.12.2024 • Sent bulk SMS to the farmers through group WhatsApp

Particulars	**Check**	**Demo**
Yield (Q/ha)	5.80	6.10
Gross cost (Rs/ha)	20000	20000
Gross return (Rs/ha)	34800	36600
Net return(Rs/ha)	14800	16600
BCR	1.74	1.83
Other parameters –	-	-

FLD 11- Demonstration of *chemical weed management* in blackgram

Crop	:	Blackgam
Thematic area	:	*weed management*
Technology demonstrated	:	Demonstration of *chemical weed management* in blackgram
Season and year	:	Rabi 2024
Farming situation	:	Rice fallow / follow crop

Source of fund	:	ICAR
No of locations (Villages):	:	
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	3
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	-
Feedback from farmers	:	Adoption recent weed management technologies significantly improved the weed control and improved the yield
Feedback of the Scientist	:	It has been taken for further large scale demonstration in CDZ
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Leaflet on weed management in pulses was prepared and distributed among the farming community

Particulars	Check	Demo
Yield (Q/ha)	6.40	7.80
Gross cost (Rs/ha)	26000	30000
Gross return (Rs/ha)	38400	46800
Net return(Rs/ha)	12400	16800
BCR	1.48	1.56
Other parameters –		

FLD 12- Demonstration of Cuscutta weed management in rice fallow greengram

Crop	:	Green gram
Thematic area	:	Weed management
Technology demonstrated	:	Demonstration of Cuscutta weed management in rice fallow greengram
Season and year	:	January/February 2025
Farming situation	:	Rice fallow / follow crop
Source of fund	:	ICAR
No of locations (Villages):	:	5
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	3
Area proposed (ha):	:	4
Actual area (ha)	:	4
Justification for shortfall if any:	:	-
Feedback from farmers	:	Farmers are not aware of chemical weed management other than manual weeding
Feedback of the Scientist	:	Further more effective herbicide weed management need to be identified.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Leaflet on weed management in pulses was prepared and distributed among the farming community

Particulars	Check	Demo
Yield (Q/ha)	5.85	7.50
Gross cost (Rs/ha)	26000	30000
Gross return (Rs/ha)	35100	45000
Net return(Rs/ha)	9100	15000
BCR	1.35	1.50
Other parameters –		

FLD 13- Demonstration of Amaranthus variety (PLR2) in Thiruvarur district

Crop	:	Amaranthus
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	Demonstration of Amaranthus variety (PLR2) in Thiruvarur district
Season and year	:	Rabi 2024
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	6
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:	:	-
Feedback from farmers	:	Farmers preferred this variety
Feedback of the Scientist	:	Yield: 43 t/ha (13%> over CO 1), It is rich in β carotenoids (8 mg / 100g), White stemmed, highly branched, Suitable for patio or container cultivation in homesteads
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	• On-campus training on "Cultivation practices of vegetables under organic farming" was conducted for 22 numbers of Farmers and Farm Women on 14.08.2024 at KVK, Thiruvarur • Sent bulk SMS to the farmers through group WhatsApp

Particulars	**Check**	**Demo**
Yield (Q/ha)	340.0	375.0
Gross cost (Rs/ha)	55000	55000
Gross return (Rs/ha)	170000	187500
Net return(Rs/ha)	115000	132500
BCR	3.09	3.41
Other parameters –	-	-

FLD 14-Demonstration of Cluster bean variety MDU 2 for higher yield

Crop	:	Cluster bean
Thematic area	:	Varietal Demonstration
Technology demonstrated	:	Demonstration of Cluster bean variety MDU 2 for higher yield
Season and year	:	July, Feb 2024

Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	6
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:	:	-
Feedback from farmers	:	Good appearance of the pod gives marketability
Feedback of the Scientist	:	Very short stature and gives good yield
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Field days

Particulars	Check	Demo
Yield (Q/ha)	63.20	74.55
Gross cost (Rs/ha)	31000	31500
Gross return (Rs/ha)	63200	74550
Net return(Rs/ha)	32200	43050
BCR	2.04	2.37
Other parameters –		Long pods suitable for market

FLD 15- Demonstration of vegetable production through Soil less culture

Crop	:	Vegetables
Thematic area	:	Vegetables Production
Technology demonstrated	:	Demonstration of vegetable production through Soil less culture
Season and year	:	Kharif 2024
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):	:	10 nos.
Actual area (ha)	:	10 nos.
Justification for shortfall if any:	:	-
Feedback from farmers	:	Obtained fresh with residual free vegetable.
Feedback of the Scientist	:	Useful to meet our daily needs
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Field day - 1 Farmers training- 2 nos Training to Extension Functionaries-1

Particulars	Check	Demo
Yield (Q/ha)	5.8	9.4
Gross cost (Rs/ha)	11500	8900
Gross return (Rs/ha)	14500	23500
Net return(Rs/ha)	3000	14600
BCR	1.26	2.64
Other parameters –	Greens = 0.6(Q/ha) Vegetables =5.2(Q/ha)	Greens = 0.9(Q/ha) Vegetables =8.5(Q/ha)

FLD 16-Demonstration of IPM module for Coconut Rugose Spiralling Whitefly

Crop	:	Coconut
Thematic area	:	Integrated Pest Management
Technology demonstrated	:	Demonstration of IPM module for Coconut Rugose Spiralling Whitefly
Season and year	:	Throught the year
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):	:	1
Actual area (ha)	:	1
Justification for shortfall if any:	:	-
Feedback from farmers	:	They felt that all the technologies were Eco-friendly. Parasitoides were not available in the local markets
Feedback of the Scientist	:	Good ecofriendly technologies
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Farmers training, training to Extension Functionaries

Particulars	Check	Demo
Yield (Q/ha)	77	84
Gross cost (Rs/ha)	42,500	40,000
Gross return (Rs/ha)	2,31,000	2,52,000
Net return(Rs/ha)	1,88,500	2,12,000
BCR	5.44	6.3
Other parameters –		

FLD 17- Demonstration of Daincha variety (TRY 1) in Thiruvarur district

Crop	:	Daincha
Thematic area	:	Varietal Demonstation
Technology demonstrated	:	Demonstration of Daincha variety (TRY 1) in Thiruvarur district
Season and year	:	Kharif, 2024
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:	:	-
Feedback from farmers	:	Farmers preferred TRY1 daincha due to its high bio mass with in 40 days from sowing in the field
Feedback of the Scientist	:	It has 120 days duration. It can be incorporated in the soil after 40 to 45 days after sowing. It is decomposed within 15 days of incorporation.
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	• Conducted training on "Importance of green manures in improving soil health" on 09.11.2024 to 43 rural youth • Sent bulk SMS to the farmers of Thiruvarur district through group WhatsApp

Particulars	Check	Demo
Biomass Yield (Q/ha)	140	165
Gross cost (Rs/ha)	-	-
Gross return (Rs/ha)	-	-
Net return(Rs/ha)	-	-
BCR	-	-
Plant height(cm)	165	176

- The performance of TRY 1 daincha variety was tested in 10 farmers field.
- It recorded plant height of 176 cm with 143 compound leaves per plant.
- No. of branches and raceme ranged from 6 to 7 per plant
- This variety recorded a higher biomass yield (16.5t/ha) than the local variety

FLD 18-Demonstration of Biomass stove for small thermal applications

Crop	:	Biomass stove
Thematic area	:	Bio energy
Technology demonstrated	:	Demonstration of Biomass stove for small thermal applications
Season and year	:	Throught the year
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:	:	5
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	-
Feedback from farmers	:	Quickly heats we can utilize waste from agriculture for cooking
Feedback of the Scientist	:	Biomass gas stove can be used for smaal thermal application. We can also use biomass for cooking less smoke

Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Field days

Particulars	Check	Demo
Yield (Q/ha)	-	-
Gross cost (Rs/ha)	200	1000
Gross return (Rs/ha)	-	-
Net return(Rs/ha)	-	-
BCR	-	-
Other parameters –	Efficiency less	More heat efficiency and less smoke

FLD 19-Demonstration of Bambusa bamboo for higher yield in Thiruvarur district

Crop	:	Bambusa bamboo
Thematic area	:	Agroforestry
Technology demonstrated	:	Demonstration of Bambusa bamboo for higher yield in Thiruvarur district
Season and year	:	July-feb
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:	:	-
Feedback from farmers	:	Grows well in delta region can be used as agroforestry crops in the bund. Still exists marketing problem.
Feedback of the Scientist	:	Heavy biomass. More carbon sequestration is noticed
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Training to extension functionaries

Particulars	Check	Demo
Yield (Q/ha)	100	150
Gross cost (Rs/ha)	20000	20000
Gross return (Rs/ha)	25000	30000
Net return(Rs/ha)	5000	10000
BCR	1.25	1.50
Other parameters –	-	-

FLD 20-Demonstration of sex sorted semen technology in dairy cows

Crop	:	Dairy cows
Thematic area	:	Reproduction management
Technology demonstrated	:	Demonstration of sex sorted semen technology in dairy cows
Season and year	:	Through out year
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:	:	3
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	Limited for young animals only
Feedback from farmers	:	Low fertility, High cost
Feedback of the Scientist	:	Low Fertility & usage for pleuriparous animals
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Dairy Training awareness created

Particulars	Check	Demo
Milk Yield (Lit/ Lactation)	1800	2200
Gross cost (Rs/ha)	20000	20000
Gross return (Rs/ha)	54,000	66,000
Net return(Rs/ha)	34,000	46,000
BCR	2.7	3.3
Other parameters –		

FLD 21-Demonstration of TANUVAS star Chicken for backyard poultry

Crop	:	Poultry
Thematic area	:	Backyard poultry
Technology demonstrated	:	Demonstration of TANUVAS star Chicken for backyard poultry
Season and year	:	Through out year
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:	:	4
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	-
Feedback from farmers	:	High mortality in rainy season, easily hunted
Feedback of the Scientist	:	Improve escape hyper activity, adoption for rainy season
Extension activities on the FLD	:	Awareness created at Backyard poultry trainings

Particulars	Check	Demo
Body weight (Kg)	1.1	2.1
Gross cost (Rs/ha)	130	180
Gross return (Rs/ha)	300	450
Net return(Rs/ha)	270	270
BCR	3.08	2.5
Other parameters –		

FLD 22-Demonstration of TANUVAS Grand supplementation to increase the milk yield in cross bred dairy cows

Crop	:	Dairy
Thematic area	:	Disease management
Technology demonstrated	:	Demonstration of TANUVAS Grand supplementation to increase the milk yield in cross bred dairy cows
Season and year	:	Through out year
Farming situation	:	Irrigated
Source of fund	:	ICAR
No of locations (Villages):	:	6
No. of demonstrations (replications/farmers/beneficiaries):	:	10
No of SC/ST Farmers and women farmers:	:	4
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	-
Feedback from farmers	:	Good
Feedback of the Scientist	:	Availability
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Awareness created in dairy &nutritional trainings

Particulars	Check	Demo
Milk Yield (Lit/ Lactation)	1600	1900
Gross cost (Rs/ha)	20000	20000
Gross return (Rs/ha)	48000	57000
Net return(Rs/ha)	28000	37000
BCR	2.4	2.85
Other parameters –		

FLD 23-Demonstration of TANUVAS small ruminants mineral mixture for increasing production performance

Crop	:	Small Ruminant
Thematic area	:	Livestock production
Technology demonstrated	:	Demonstration of TANUVAS small ruminants mineral mixture for increasing production performance
Season and year	:	Through out year
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:	:	3
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	-
Feedback from farmers	:	Required free of cost, pellet farm
Feedback of the Scientist	:	Make pellet
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Awareness created in Slatted goat trainings

Particulars	Check	Demo
Body weight (Kg)	24	27
Gross cost (Rs/ha)	3000	3000
Gross return (Rs/ha)	7200	8100
Net return(Rs/ha)	4200	5100
BCR	2.4	2.7
Other parameters –		

FLD 24-Demonstration of PROBEADS-EC on growth performance of Indigenous poultry

Crop	:	Poultry
Thematic area	:	Poultry health
Technology demonstrated	:	Demonstration of PROBEADS-EC on growth performance of Indigenous poultry
Season and year	:	Through out year
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:	:	4
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	-
Feedback from farmers	:	Wasy but unavailability in local market
Feedback of the Scientist	:	Ensure Local availability
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Awareness created in pultry trainings

Particulars	Check	Demo
Body weight (Kg)	1.1	1.3
Gross cost (Rs/ha)	140	145
Gross return (Rs/ha)	330	390
Net return(Rs/ha)	190	245
BCR	2.36	2.69
Other parameters –		

FLD 25-Demonstration of TANUVAS-VIC biofoam for dairy animals

Crop	:	Dairy cows
Thematic area	:	Disease Management
Technology demonstrated	:	Demonstration of TANUVAS-VIC biofoam for dairy animals
Season and year	:	Through out year
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:	:	4
Area proposed (ha):	:	-
Actual area (ha)	:	-
Justification for shortfall if any:	:	-
Feedback from farmers	:	Unavailability
Feedback of the Scientist	:	Ensure at local market
Extension activities on the FLD (Field days, Farmers training, media coverage, training to Extension Functionaries)	:	Awareness created in dairy &nutritional trainings

Particulars	Check	Demo
Milk Yield (Lit/ Lactation)	1600	1800
Gross cost (Rs/ha)	20000	20000
Gross return (Rs/ha)	48000	54000
Net return(Rs/ha)	28000	34000
BCR	2.4	2.7
Other parameters –		

Extension Studies

Impact studies, survey, and other extension studies- Under progress

Technology Week Celebrations- Nil

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

Trainings attended in the relevant field of specialization (Mention Title, duration, Institution, location etc.)

S.No	Name of the staff	Title	Dates		Duration (Days)	Organized by
			From	To		
1	Dr.D.Periyar Ramasamy	Interactive meeting on Digital Extension	08.03.2024	09.03.2024	2	TNAU, Coimbatore
2	Dr.D.Periyar Ramasamy	International workshop on SRI: A Climate resilient agricultural technology for environment and economic gain	18.03.2024	18.03.2024	1	Centre for Water and Geospatial Studies, TNAU, Coimbatore
3	Dr.S.Arulselvi	10th Annual Seed Workshop	22.03.2024	22.03.2024	1	Director Seed Centre, TNAU, Coimbatore
4	Dr.D.Periyar Ramasamy	Golden Jubilee Celebration of KVKs	21.03.2024	21.03.2024	1	ICAR - PKKVK PUDUCHERRY
5	Dr.D.Periyar Ramasamy	Research – Extension Interface Workshop for the KVKs of Tamil Nadu & Puducherry	25.03.2024	26.03.2024	2	TNAU, Coimbatore
6	Dr.D.Periyar Ramasamy	12th Social Scientists meet at TNAU	08.05.2024	09.05.2024		TNAU, Coimbatore
7	Dr.M.Rajesh	Training cum Exposure visit for the Master Trainers on Natural Farming	20.05.2024	24.05.2024	5	TNAU, Coimbatore jointly with MANAGE, Hyderabad
8	DR.S.Arulselvi Dr.C.Prabakaran	Training cum Exposure visit for the Master Trainers on Natural Farming	27.05.2024	28.05.2024	2	DoEE, TNAU, Coimbatore and NOFRC, TNAU, Coimbatore
9	Dr.V.Dhanushkodi	Millet meet	30.05.2024	01.06.2024	2	TNAU, Coimbatore
10	Dr.V.Dhanushkodi	Oilseed meet	12.06.2024	12.06.2024	1	TNAU, Coimbatore
11	Dr.D.Periyar Ramasamy	Annual Zonal Review Workshop of KVKs of Zone X	25.06.2024	27.06.2024	3	Rajahmundry
12	Dr.D.Periyar Ramasamy	Workshop on Export of Agricultural Commodities Promotion	06.08.2024	06.08.2024	1	Agri Marketing of Govt. of TN
13	Dr.V.Dhanushkodi	International conference on Precision horticulture	22.08.2024	24.08.2024	3	HC&RI, Periyakulam

14	Dr.D.Periyar Ramasamy	Cholanadu FPO -Agribusiness Development Conference	24.08.2024	24.08.2024	1	Cholanadu FPO, Rishiyur
15	Dr.M.Sabapathi	Workshop on "Dissemination of TANUVAS Technologies to KVK scientists of Tamil Nadu to augment livestock and poultry production for doubling farmers income"	*27.09.2024*	28.09.2024	2	KVK, Namakkal
16	Dr.M.Sabapathi	Workshop on "Dissemination of TANUVAS Technologies to KVK scientists of Tamil Nadu to augment livestock and poultry production for doubling farmers income"	27.09.2024	28.09.2024	2	DEE, TANUVAS
17	Dr.M.Rajesh	One day seminar on Pest and diseases in Paddy at Kadakambadi	17.10.2024	-	1	SPIC and Greenstar with Senbagavalli Enterprises
18	Dr.D.Periyar Ramasamy	CSISA-Landscape Diagostic Survey on Evidencegeneration for Pulse crop using digital survey tool	21.10.2024	23.10.2024	3	ATARI, Zone X Hydrabad
19	Dr.M.Rajesh	District climate change mission unit	23.10.2024	-	1	Collectorate, Thiruvarur
20	Dr.D.Periyar Ramasamy	TNIAMP Felicitation workshop	25.10.2024	-	1	Department of marketing, Thiruvarur
21	Dr.V.Karunakaran Dr.M.Rajesh	Seed Centre - SICI - International Conference on Unleashing the power of seed and crop Health Innovations for a Food Secure World (ICUCF'24)	21.11.2024	22.11.2024	2	TNAU, Coimbatore &Shastri Indo-Canadian Institute, New Delhi
22	Dr.D.Periyar Ramasamy	Training on Agricultural Marketing for Extension Officers	10.12.2024	13.12.2024	4	TNAU, Coimbatore
23	Dr.V.Karunakaran	One day Workshop cum Training On Bio molecular Characterization: GC-MS Techniques	04.12.2024	-	1	ADAC & RI Trichy

Details of collaborative / externally funded / sponsored projects/programmes implemented byKVK.(2024)

S.No	Title of the programme / project	Sponsoring / collaborating agency	Objectives	Duration	Amount (Rs)
1	Awareness Programme on Energy Efficiency and Demand Side Management in Agriculture sector	TANGEDCO	• To create awareness among the farmers for reducing Electric Energy conservation • To increase the Energy efficiency	2024-25	27000
2	Swacchta Action Plan	ICAR ATARI, Hyderabad	To create awareness among the public on cleanness activity	2024-25	26000
3	CSISA- CIMMYT project-Pulses landscape Diagnostic Survey training programme	ICAR ATARI, Hyderabad	To increase the pulse production and to combat protein mal-nutrition	2024-25	100000
4	PM kisan Sammelan	ICAR ATARI, Hyderabad	To create awareness on PM kisan Sammelan	2024-25	10000
5	Krishi Sakhis in Natural farming (5 Programme)	TNSRLM	To wider adaptation of Natural farming in the District	2024-25	562500
6	Awareness workshop on PM KUSUM (Component –A)	ICAR ATARI, Hyderabad, NSFI, GIZ	To harnessing the renewable source of energy	2024-25	-
7	NABARD - Augmenting the Livelihood of Cauvery Delta Farmers through Demonstration of Paddy cum Fish culture	NABARD	To popularize the Paddy cum Fish culture technology	2023-24 (till March 2024)	990000
8	CFLD Pulses	ICAR ATARI, Hyderabad	To increase the pulse production of the district	2024-25	975000
9	District level seminar on Bee keeping technologies	GOI-NBB, AMCP, New Delhi	To motivate the farmers to create their micro enterprises through eco friendly technology	2024-25	200000

Detailed report of each project/programme separately with objectives, nature of collaboration / programme, outcome of the collaboration etc.

Awareness Programme on Energy Efficiency and Demand Side Management in Agriculture sector

An awareness programme on "Energy Efficiency and Demand-Side Management (DSM) in the Agriculture Sector" was held at ICAR-KVK, Needamangalam, with the participation of 50 men and women farmers from Farmers' Producer Organisations (FPOs) and nearby villages in Thiruvarur district. The programme began with a warm welcome address by **Dr. D. Periyar Ramasamy**, Programme Coordinator. **Dr. V. Karunakaran** emphasized about energy efficiency and demand-side management play a crucial role in transforming the agricultural sector. By optimizing energy use and reducing wastage, farmers can lower operational costs, increase productivity, and contribute to environmental sustainability. Demand-side management strategies, such as utilizing energy-efficient equipment, adopting renewable energy sources, and scheduling energy use during off-peak hours, help balance energy demand and supply. This not only reduces the strain on power grids but also supports the long-term resilience of the agricultural sector in the face of rising energy costs and climate challenges.

Invited Lecture: The programme featured an insightful lecture delivered by the **Dr. Sambath**, Assistant Executive Engineer from TANGEDCO. The lecture provided farmers with practical tips on how to reduce energy consumption, use energy-efficient equipment, and adopt sustainable practices in their day-to-day operations. The expert explained the benefits of adopting DSM techniques and their long-term impact on reducing operational costs and contributing to a greener environment. Also highlighted the Energy Conservation Act, 2001 and Bureau of Energy Efficiency (BEE) in ensuring Standards & Labelling Scheme provides consumers an informed choice for energy efficient appliances and equipment's.

Awareness Videos: To further engage the farmers, short awareness three short awareness video clips were shown to the farmers, enhancing their understanding of energy-efficient practices. A dedicated interactive session allowed farmers to engage and clarify their doubts regarding energy efficiency in the farm sector. These videos illustrated real-life examples of energy-saving practices in agriculture, making it easier for the farmers to understand and adopt the concepts in their own fields.

Participation and Collaboration: The event saw active participation from the farming community. The programme was jointly facilitated by the Executive Engineer and Assistant Executive Engineer from TANGEDCO and Executive Engineer from Agricultural Engineering Department along with support from the entire team at ICAR-Krishi Vigyan Kendra (KVK)-Needamanglam.

The event was concluded with formal vote of thanks by **Dr. M. Sababathi**, Associate Professor (VAS), acknowledging the efforts of government officials from line department of Thiruvarur district and entire KVK team and participants in organizing the programme successfully. The awareness programme was conducted in a grand and successful manner, contributing significantly to the farmers' knowledge of energy efficiency in agriculture.

Awareness Workshop on PM KUSUM

An awareness workshop on PM KUSUM (Component – A) was conducted in collaboration with ICAR-ATARI, Hyderabad, NSFI, and GIZ at KVK Thiruvarur on August 19, 2024. The event aimed to educate farmers and stakeholders about the scheme's benefits and implementation.

Dr. D. Periyar Ramasamy, Programme Coordinator of KVK Thiruvarur, warmly welcomed the esteemed delegates and enthusiastic participants, providing an insightful overview of the workshop's objectives.

Representatives from GIZ elaborated on the significance of the PM KUSUM scheme, emphasizing its role in promoting sustainable agriculture and enhancing energy security for farmers.

Mr. R.M. Subramaniam, a seasoned trainer, provided a detailed breakdown of the scheme's components, illustrating how they empower the farming community with solar energy solutions. The workshop also featured an engaging interactive session, where participants shared their feedback and suggestions, contributing valuable insights for strengthening the scheme's implementation.

The session saw active participation from farmers and representatives of Farmer Producer Organizations (FPOs), with a total of 40 attendees.

District level seminar on Bee keeping technologies

A "District Level Seminar" sponsored by National Bee Board (NBB), New Delhi was inaugurated on 24.01.2024 at ICAR-TNAU KVK, Needamangalam, one hundred and fifty beneficiaries from various fields like, entrepreneurs, unemployed women and youths, field workers from Department of Agriculture were registered. The inauguration function, chief gusted by The Director of Extension Education, TNAU, Coimbatore spotlighted the unutilized areas of honey bee rearing and their benefits. The chief guest and other dignitaries were welcomed and honoured by the Programme Co-ordinator and the seminar booklet released during the function.The programme was organised and the seminar salient features were explained by SMS (Plant Protection), finally proposed the formal vote of thanks by SMS (Agronomy). After inauguration, the dignitaries and participants were visited the exhibitions stall and SMS (Plant Protection) explained the various bee hive products and their uses.

Two days of seminar schedule, which included the lectures with demonstrations in day one and practical field visits for second day. After inaugural session, Introduction about honey bees and their importance in the ecosystem speech was delivered by the SMS (Plant Protection). The following lectures were touched by the guest lectures and experts, who were invited from various places,

- Identification of honey bee species and different castes of honey bees
- Identify different body parts of honey bees and demonstrate life cycle of honey bees
- Bee colony inspection, Identification and selection of strong colonies
- Harvesting of a honey comb and extraction of honey from honeycomb
- Processing of extracted honey, packaging, storage and quality testing of honey
- Artificial feeding to honey bees and Identification, management of pesticide poisoning in honey bees
- Management of major insect- pest and diseases by preventive and curative methods

- During outdoor visit, the progressive entrepreneur was demonstrated the handling of bees with precautionary measures and identified the queen, worker and drone and distinguish egg, larva, pupae and adult in the bee colonies. Also assembling and dissembling a beehive were demonstrated in crystal clear manner. The participants were individually experienced the practical sessions and cleared their doughts.

During the two days seminar new exposure to honey bee rearing for farmers, unemployed youths and farm women and gained the knowledge about bee rearing. Experienced entrepreneurs were shared their experience in this seminar and channelized the farmers in to entrepreneur for getting additional income.

Release of the 16th Instalment under the PM KISAN Scheme

On February 28, 2024, the Honourable Prime Minister officially released the 16th instalment of the PM KISAN scheme through an online platform.

An interactive session was held with KVK scientists, focusing on topics such as organic farming, crop varieties, and plant protection.
Location: KVK, Thiruvarur
Participants: 110

Success stories

Success story

High yielding rice variety, ADT 59 suitable for Kuruvai cultivation for increasing the livelihood of Thiruvarur farmers

1. Situation analysis/Problem statement:

Mr. S. Nanthakumar, son of Sivaprakasam, is an experienced and dedicated farmer from Aalangudi village in the Valangaiman block of Thiruvarur district. With a keen interest in adopting new agricultural advancements, he regularly consults the ICAR - Krishi Vigyan Kendra, Thiruvarur, to explore improved rice varieties and farming technologies. His farming primarily includes the cultivation of CO51 and ADT 53 rice varieties, with his produce being supplied to the Direct Procurement Centre (DPC).However, Mr. Nanthakumar faced challenges with low yields from CO51 and ADT 53, which left him discouraged in his rice farming journey. Determined to improve his harvest and profitability, he actively sought high-yielding varieties with better market potential. Upon consulting the scientists at ICAR-KVK, Thiruvarur, he was advised to adopt ADT 59, a promising new rice variety. Acting on their recommendation, he decided to cultivate ADT 59 on a oneacre land, aiming for better productivity and enhanced returns.

2. Plan, Implement and Support:

Seeking guidance for cultivating a high-yielding rice variety, Mr. S. Nanthakumar sought guidance from ICAR - KVK, Thiruvarur. Eager to enhance his farming knowledge, he actively participated in multiple training programs on organic rice cultivation, eco-friendly pest and disease management, soil health preservation, and seed production technologies.Recognizing his dedication, ICAR - KVK, Thiruvarur, provided him with essential inputs, including high-quality ADT 59 rice seeds, biofertilizers, and other

necessary resources. To further support his efforts, KVK organized a Front Line Demonstration titled *"Demonstration of a new rice variety suitable for kuruvai cultivation in Thiruvarur district,"* conducted on a one-acre plot of his farmland. Throughout the demonstration, the KVK team offered continuous technical support through regular field visits.By adhering to expert recommendations, Mr. Nanthakumar meticulously implemented Integrated Crop Management (ICM) practices, including seed treatment, integrated nutrient and water management, and integrated pest management. His systematic approach ensured optimal crop care, reinforcing his commitment to improving yield and sustainability in rice farming.

3. Output:

The farmer successfully harvested the ADT 59 rice variety within 115 days. Throughout its growth cycle, no major pest or disease infestations were observed. The plants displayed medium height with sturdy stems, ensuring they remained upright even at full maturity without lodging. With a grain yield of 6750 kg/ha, surpassing the average yield outlined in the variety release proposal, the farmer achieved remarkable results. Additionally, the harvested produce fetched a premium price in the market, making ADT 59 a more profitable choice compared to other rice varieties during kuruvai season. This success underscored the variety's effectiveness and suitability for the farmer's agricultural practices.

4. Outcome

The cultivation of ADT 59 rice proved to be significantly more profitable for the farmer compared to CO 51 and ADT 53. Over a span of 115 days, he achieved an impressive yield of 67.5 quintals per hectare, generating a net return of Rs. 1,16,125/-. This successful venture not only enhanced Mr. S. Nanthakumar's income but also demonstrated the economic viability of ADT 59. His remarkable profit soon gained attention among neighboring farmers, sparking widespread interest in adopting this high-yielding variety. The growing enthusiasm within the farming community highlights the potential of ADT 59 to become a preferred choice for rice cultivation during kuruvai season.

Parameters	Check (ADT 53)	Demo (ADT 59)
Yield (Q/ha)	54	67.5
Gross income (Rs/ha)	126900	158625
Gross cost (Rs/ha)	42500	42500
Net return (Rs/ha)	84400	116125
BCR	2.97	3.73

5. Impact:

Farmers have shown a preference for the rice variety ADT 59 due to its exceptional grain yield, surpassing that of other rice varieties typically used in kuruvai cultivation. Additionally, ADT 59 is highly valued for its suitability in preparing idly and other savouries. During the 2024-25 season, only ten farmers cultivated this variety. However, a growing number of farmers across Thiruvarur district have shown strong interest in adopting ADT 59 for the upcoming season. This rising enthusiasm underscores the recognition of its benefits and profitability. With the success of initial trials and positive feedback from early adopters, the cultivation area for ADT 59 is expected to expand in the near future, highlighting its increasing popularity and acceptance among the farming community.

2. Success story on integrated crop management in Paddy TRY 3

1. Situation analysis/Problem statement:

In Tamil Nadu, there are approximately 4.7 lakh hectares of salt-affected soils, with around 3.0 lakh hectares located inland and 1.7 lakh hectares found in coastal regions. Within the inland salt-affected soils, roughly 2.0 lakh hectares are classified as alkali and 1.0 lakh hectares as saline. The Thiruvarur district alone encompasses 25000 hectares of salt-affected soils. Therefore, it is essential to promote the use of saline and alkaline tolerant rice varieties and associated management practices at the field level to enhance the yield potential of rice in the salt-affected areas of Thiruvarur district.

2. Plan, Implement and Support:

Krishi Vigyan Kendra, Needamangalam, Thiruvarur was conducted more than 45 number of demonstrations and various training programme on problem soil management practices from 2011 onwards. The training was given to the farmers and farm women's. Based on the soil testing, technologies were imposed. Besides reclamation with gypsym, cultivation of daincha green manure crops, biofertilizers and biocontrol seed treatment, the suitable salt tolerant variety also suggested. The entire seed to seed of management practices have been advocated to the farmers.

3. Output:

Th. Kanagasabai is an innovative farmer practicing FLD Integrated Crop Management in Paddy TRY 3 in Kovilvenni village, but he has struggled to achieve optimal success in his field, which has a soil pH of around 8.4 and an EC of 2.4 dS/m. The KVK stepped in to provide him with training on integrated crop management for Paddy TRY 3, covering aspects such as the use of green manure seeds, planting Paddy TRY 3 seeds during the samba season, and applying biofertilizers and biocontrol agents through seed treatments. KVK scientists conducted regular visits to his farm to offer essential technical assistance. The reclamation of saline soil resulted in an increased number of productive total tillers (27), a higher number of grains per panicle (462), and a yield that doubled to approximately 4.4 tons per hectare compared to non-reclaimed areas.

4. Outcome:

Farmers generated a additional profit of Rs. 13243 per hectare through this technology. The grain yield reached about 4.42 tons per hectare, and the benefit-cost ratio was 1:1.97. The increase in yield over non-reclaimed fields was 43%.

Particulars	Check	Demo
Yield (Q/ha)	36.12	44.21
Gross cost (Rs/ha)	55700	38150
Gross return (Rs/ha)	79464	75157
Net return(Rs/ha)	23764	37007
BCR	1.43	1.97

5. Impact:

The Paddy TRY 3 variety has had a beneficial effect on the social lives of individuals. It has increased yields and income while alleviating stress for those in saline and sodic soils. This economic benefit has enhanced aspects of social living, such as purchasing goods, engaging with mass media, and fostering knowledge and skill development among individuals. Changes in knowledge, skills, and attitudes are crucial for

improving the technical competency of individuals in utilizing salt-tolerant varieties. Overall awareness has been raised through mass media outlets like newspapers, AIR, and KMAS. To cultivate skills related to suitable crop varieties for salt-affected soils, training plays a significant role. As individuals' economic status improves, both technical and social impacts can be observed in their lives.

3. Success Story: Veeramani's Journey to Prosperity with MDU 2 Cluster Beans

1. Situation Analysis/Problem Statement:

Veeramani, a young and ambitious farmer from Tamil Nadu, aspired to enhance his agricultural productivity and profitability. Recognizing the increasing demand for high-quality, nutrient-rich vegetables, he sought an improved crop variety that could outperform traditional options in both yield and market value.

2. Plan, Implementation, and Support

Plan: Veeramani decided to cultivate MDU 2 cluster beans, a high-yielding and nutrient-dense variety known for its short duration (75 days) and impressive yield potential (14 t/ha). To ensure success, he sought expert guidance from ICAR - KVK, Thiruvarur. In support of his initiative, KVK organized a Front Line Demonstration (FLD) titled "Demonstration of High-Yielding Cluster Beans MDU 2."

Implementation: The FLD was conducted on a one-acre plot of Veeramani's farmland. He meticulously prepared the soil, adhered to timely irrigation schedules, and followed best agricultural practices recommended by Tamil Nadu Agricultural University (CPG, 2020) to optimize crop growth and yield.

Support: By integrating modern farming techniques with efficient marketing strategies, Veeramani successfully enhanced his farm's productivity and profitability.

3. Output:

- The MDU 2 cluster bean plants produced an impressive 115 to 125 pods per plant.
- The crop yielded 14 tonnes per hectare, significantly outperforming traditional varieties.
- The beans' high protein content (2.6 g/100g) and optimal crude fiber (2.58 g) increased their market desirability.

4. Outcome:

- Due to their superior quality, long pods (15-16 cm), and uniform shape, Veeramani's MDU 2 cluster beans commanded premium prices.
- By directly selling to wholesalers and vegetable vendors, he maximized his profits.
- Inspired by his success, neighboring farmers showed keen interest in cultivating MDU 2 cluster beans.

Parameters	Check (Local)	Demo (MDU 2)
Yield (Q/ha)	10.0	14.0
Gross Income (Rs/ha)	50,000/-	90,000/-
Gross Cost (Rs/ha)	45,000/-	49,000/-
Net Return (Rs/ha)	5,000/-	41,000/-
BCR	1.11	1.84

5. Impact:

- Veeramani emerged as a role model, inspiring fellow farmers to adopt improved crop varieties and modern agricultural techniques.
- His success story highlighted how informed decision-making and innovation in farming can lead to higher yields, increased income, and sustainable agricultural growth.
- The widespread adoption of MDU 2 cluster beans contributed to economic growth within his farming community, encouraging more farmers to follow his footsteps toward prosperity.

Through dedication, knowledge, and the right agricultural practices, Veeramani transformed his farm into a thriving enterprise, setting a benchmark for future agricultural advancements.

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): -

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

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)
Demonstration of Rice variety (CO 56) suitable for Thaladi season in Thiruvarur district	30	100	124775	141450
Demonstration of TNAU Rice Bloom for Thaladi/Samba season in Thiruvarur district	25	100	125685	153321
Demonstration of PPFM to combat abiotic stress	30	20	1,04,600/-	1,15,060/-
System of Rice Intensification(SRI)/Alternate Wetting and Drying Irrigation (AWDI)	150	100	105525	130200
TNAU Cotton plus boosterin cottonfor higher income in Thiruvarur district	100	100	144000	198000

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

1. Intervention/ activity: Demonstration of Rice variety (CO 56) suitable for Thaladi season in Thiruvarur district

Parameter	Demo (CO56)	Check (ADT38)
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check	-	-
Productivity (in q/ha) in demo	61.50	54.25
Additional yield over check (in q/ha)	7.25	-
% increase in yield over check	13.36	-
Gross returns (in Rs/ha)	141450	124775
Net Returns (Rs / ha)	96450	79775
Additional Net Returns in demo (demo –check)	16675	-
B:C ratio	3.14	2.77

Outcome	
Area covered, spread in adopted villages (ha)	226
Economic impact of KVK interventions (Rs) (Additional net returns in demo x no. of ha)	37,68,550
Area spread in district through convergence (ha)	1500

2. Intervention/ activity: Demonstration of TNAU Rice Bloom for Higher yield in rice

Parameter	Demo	Check
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check	-	-
Productivity (in q/ha) in demo	62.58	51.30
Additional yield over check (in q/ha)	11.28	-
% increase in yield over check	21.9	-
Gross returns (in Rs/ha)	153321	125685

Net Returns (Rs / ha)	102321	80185
Additional Net Returns in demo (demo –check)	22136	-
B:C ratio	3.01	2.76

Outcome	
Area covered, spread in adopted villages (ha)	150
Economic impact of KVK interventions (Rs) (Additional net returns in demo x no. of ha)	33,20,400
Area spread in district through convergence (ha)	1000

3. Intervention/ activity: Demonstration of PPFM to combat abiotic stress

Parameter	Demo (PPFM application)	Check (non application of PPFM)
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check	400/-	-
Productivity (in q/ha) in demo	57.53	52.30
Additional yield over check (in q/ha)	5.23	-
% increase in yield over check	10	-
Gross returns (in Rs/ha)	1,15,060/-	1,04,600/-
Net Returns (Rs / ha)	39,600/-	49,660/-
Additional Net Returns in demo (demo –check)	10000/-	-
B:C ratio	1.76	1.60

Outcome	
Area covered, spread in adopted villages (ha)	126
Economic impact of KVK interventions (Rs) (Additional net returns in demo x no. of ha)	12,60,000
Area spread in district through convergence (ha)	1500

4. Intervention/ activity: System of Rice Intensification(SRI)/Alternate Wetting and Drying Irrigation (AWDI)

Parameter	Demo	Check
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check (Pani pipe)	230	-
Productivity (in q/ha) in demo	62.00	50.25
Additional yield over check (in q/ha)	12.25	-
% increase in yield over check	24.37	-
Gross returns (in Rs/ha)	130200	105525
Net Returns (Rs / ha)	85200	60525
Additional Net Returns in demo (demo –check)	24675	-
B:C ratio	2.89	2.34

5.TNAU Cotton plus boosterin cottonfor higher income in Thiruvarur district

Parameter	Demo	Check
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check TNAU Cotton plus	1000	-
Productivity (in q/ha) in demo	22	16
Additional yield over check (in q/ha)	6	-
% increase in yield over check	37.5	-
Gross returns (in Rs/ha)	198000	144000
Net Returns (Rs / ha)	148000	94000
Additional Net Returns in demo (demo –check)	54000	-
B:C ratio	3.96	2.88

Box item for APR 2024
(similar to APR 2023)

Name and contact details of farmer, few lines of farmers statement / achievement, good quality photo.

Name	:	Th. T. Rajarajan
Contact details	:	S/o. Th. Thayalan 710/1, Therkutheru, Maharajapuram Thirumakottai Mannargudi (Tk) Thiruvarur – 614 017 Phone no. 7502258199
Farmers statement	:	Struggling to improve blackgram yield in rice fallow conditions due to the absence of a high-yielding, pest- and disease-resistant, early-maturing variety "A dynamic innovative farmer, Th.T.Rajarajan acts as a liaison between KVK and farming community. As an ICM-Pulses trainee of KVK, he achieved higher yields by cultivating VBN8 blackgram"

One page report on skilling - outcome of skilling - entrepreneurship development programmes conducted, enterprises established, handholding by KVK - outcome in terms of income, employment generated etc.

- **Residential Training Programme for Krishi Sakhis on Natural Farming**
- A series of five-day **residential training programmes** for **Krishi Sakhis** on **Natural Farming** was conducted at **ICAR-KVK, Thiruvarur** on multiple dates: **22.07.2024–26.07.2024, 29.07.2024–02.08.2024, 05.08.2024–09.08.2024, and 19.08.2024–23.08.2024**. This intensive training aimed to empower **150 women participants** from **Self-Help Groups (SHGs), Village Organizations (VOs), and Anganwadi centers**, equipping them with hands-on knowledge in sustainable agricultural practices.
- The training featured **a structured five-day schedule**, blending **theory and practice** to ensure a comprehensive learning experience. **Master trainers and progressive farmers** played a key role in imparting knowledge through **interactive lectures, demonstrations, poster presentations, discussions, and practical field exercises**. Participants also gained real-world exposure through outdoor field visits to successful natural farming enterprises.

  Key Training Modules Covered:
- ✔**Fundamentals of Natural Farming** – Understanding the core principles and ecological benefits.

  ✔**Soil Health Management** – Role of organic matter in soil aggregation and moisture retention.

  ✔**Mulching Techniques** – Using natural materials to protect soil from erosion and temperature fluctuations.

  ✔**Preparation of Natural Inputs** – Hands-on training in making Jeevamruth, Bijamruth, and 3G extracts.

  ✔**Organic Certification & Marketing** – Understanding certification processes and market linkages.

  ✔**Pest & Disease Management** – Eco-friendly solutions using botanical extracts and cow urine.

  ✔**Water Management & Harvesting** – Strategies for sustainable irrigation and water conservation.

  ✔**Livestock Integration** – Enhancing farm productivity through crop-livestock synergy.

  ✔**Economic Viability & Challenges** – Cost-benefit analysis and overcoming barriers in Natural Farming.

- **Impact & Outcomes:**
- **Mindset Shift**: The training instilled a strong belief in the benefits of Natural Farming, motivating participants to adopt chemical-free practices.
  Increased Farm Income: Farmers reported an **average 10% increase** in income compared to the previous year due to cost savings on fertilizers and pesticides.
  Sustainable Crop Production: Trainees started cultivating **residue-free, organic produce**, reducing the harmful effects of synthetic chemicals on health and the environment.
  Knowledge Sharing: The **Krishi Sakhis** are now acting as **community ambassadors**, spreading awareness and guiding other farmers in adopting sustainable practices.
  Entrepreneurship & Employment: Many trainees initiated **organic vegetable gardens**, creating **new**

income streams and **employment opportunities** in rural areas, significantly improving their standard of living.

- By empowering these women with **practical skills and entrepreneurial insights**, the **KVK training programme** has contributed to **rural development, economic upliftment, and a healthier, more sustainable agricultural ecosystem**.

One case of successful technology application and dissemination: a technology which has passed through OFT, FLD, Trainings, Mainstream Extension (State Department of Agriculture), large scale adoption by farmers (in terms of area, additional income, input savings, saving of natural resources *etc.*)

Impact of VBN 8 blackgram variety in increasing the blackgram yield under rice fallow condition in Thiruvarur district

Introduction

Pulses in India are generally cultivated on marginal or fallow lands, leading to lower yields compared to the global average. In the case of black gram (*Vigna mungo*), several factors contribute to its low productivity. The limited adoption of improved cultivation technologies highlights the need for better dissemination of scientific advancements.Productivity is further constrained by biotic, abiotic, and socio-economic challenges. Poor plant nutrition and uncertain water availability during the growth cycle significantly limit crop growth and yield. Despite the release of several high-yielding black gram varieties by Tamil Nadu Agricultural University (TNAU), their adoption in general cultivation remains limited.

Problem

Thiruvarur has one of the highest land areas under rice cultivation in Tamil Nadu. After the *samba* rice crop, farmers typically grow a short-duration pulse crop during the *rabi* season, utilizing the residual soil moisture. However, the availability of black gram (*Vigna mungo*) varieties suited for rice fallow conditions is limited.To enhance productivity, there is a need for a high-yielding black gram variety that possesses terminal drought tolerance and resistance to major pests and diseases. Developing and promoting such a variety would significantly benefit farmers and improve overall pulse production in the region.

Intervention

To address this, Cluster Frontline Demonstrations (CFLDs) were conducted by ICAR-KVK, Thiruvarur to showcase the production potential and economic benefits of the *VBN 8* black gram variety. These demonstrations aim to bridge the yield gap and promote the adoption of improved agronomic practices among farmers.

Result

By cultivating the *VBN 8* black gram variety, farmers achieved an additional yield of 3.77 q/ha, marking a 22.74% increase over the check variety. This resulted in an additional net return of Rs. 22,620 per hectare.

Output

The higher yield achieved with the *VBN 8* black gram variety has brought satisfaction to farmers by providing them with additional income in a short period. As a result, expanding the cultivation of black gram during the rice-fallow season can significantly increase pulse production in Tamil Nadu.

Outcome

The adoption of VBN 8 black gram can significantly bridge the technology gap by promoting scientific cultivation practices, thereby enhancing productivity in Thiruvarur district. Compared to local black gram varieties, VBN 8 demonstrated superior performance, yielding higher grain output and better economic returns. Therefore, VBN 8 is the most suitable variety for rice-fallow conditions in Thiruvarur district.

Parameter	Demo (VBN8)	Check (Local)
Output		
Additional cost (+) of technology / intervention or saving (-) in demo (Rs) over check	-	-
Productivity (in q/ha) in demo	8.65	4.88
Additional yield over check (in q/ha)	3.77	-
% increase in yield over check	22.74	-
Gross returns (in Rs/ha)	51900	29280
Net Returns (Rs / ha)	31900	9280
Additional Net Returns in demo (demo –check)	22620	-
B:C ratio	2.595	1.464

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. Establishment of paddy cum fish culture demo unit at KVK – Field days and trainings conducted **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 delivered 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 delivered 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 delivered 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 delivered 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 delivered.

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

AWARDS and RECOGNITIONS

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

Important Visitors to KVKs during 2024 (with photographs)

Th.S.Murasoli, Honourable Minister of Parliament, Thanjavur visit- 09.07.2024

Th.S.S.Palanimanickam, Honourable Minister of Parliament, Thanjavur visit- 23.02.2024

ANNEXURE I

13th Scientific Advisory Committee Meeting ***SAC proceedings along with list of participants***

Proceedings

The 13th Scientific Advisory Committee Meeting of KVK, Needamangalam was held on 06.03.2024 to discuss the action plan for the ensuing year. Dr. D. Periyar Ramasamy, Programme Coordinator, welcomed the gathering of the meeting and explained the action taken on the recommendations of the 12th SAC meeting conducted on 16.03.2023. He also presented the overview of ICAR-KVK and its mandatory activities since the last SAC. The meeting was inaugurated by Dr. A. Velayutham, Dean, Dr.MSSwaminathan Agricultural College and Research Institute, Eachangkottai, Thanjavur who highlighted the achievements of the KVK and motivated the scientists to work with involvement. The Director, TRRI, Aduthurai, Dr. K. Subrahmaniyan participated as a special invitee. During his special address, he indicated certain actions to be taken up by the KVK scientists for the ensuing year. Th. J. Elumalai, 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. V. Dhanushkodi, Associate Professor (SS&AC) proposed a 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. A. Velayutham	Dean	Dr.MSSwaminathan Agricultural College and Research Institute, Eachangkottai, Thanjavur	Member
2	Dr. K. Subrahmaniyan	Director	Tamil Nadu Rice Research Institute, Aduthurai	Member
3	Th. J. Elumalai	Joint Director of Agriculture	Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur	Member
4	Th.M.Lakshmikandhan	Deputy Director	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	Mr. S.Vijayakumar	Assistant Director of Agriculture	Anna silai, Thanjavur Road, Needamangalam.	Member
8	Dr. S. Swaminathan	Assistant Director of Animal Husbandry	Veterinary Hospital Campus, Nethaji road,Thiruvarur	Member

9	Er. R. Ravindran	Executive Engineer (AED)	Department of Agricultural Engineering Pavithramanickam, Thiruvarur	Member
10	Mr. K. Elavarasan	Assistant Director of Horticulture	Department of Horticulture and Plantation crops, Collectorate Complex, Thiruvarur	Member
11	Ms. T. Usha	Assistant Inspector of Sericulture	Department of Sericulture, Thiruvarur	Member
12	Tmt. Amutha	District Social Welfare officer	Collectorate Complex, Thiruvarur	Member
13	Tmt. A. Sandrasena	Women Welfare officer	Collectorate Complex, Thiruvarur	Member
14	Th. S. Nandakumar	Big Farmer	S/o. Th. P.S.Sivaprakasam 3/22, West Mandi, Alangudi, Valangaiman Taluk, Thiruvarur - 612 801	Member
15	Th. K. Gunaseelan	Small Farmer	S/o. Th. Kalayanasundram 4/7, Perumal Koil Street, Sarabojipuram, Poonthottam, Kudavasal Taluk ThiruvarurDistrict, PIN 609503	Member
16	Tmt. S. Manimozhi	Woman Farmer	W/o. Th. T. Senthil Kumar 2/245, Therkadimadhagu Ezhilur, Thiruthuraipoondi Taluk Thiruvarur District, PIN 614 715	Member
17	Tmt. S. Sundari	Woman Farmer	W/o Th.E.Sathish Kumar 129, Kudiyana street, Melapoovanoor Post Needamangalam Taluk Thiruvarur District PIN 612803	Member
18	K.H. Salimathsowtha	Agri. Entrepreneur	W/o Th.K.M.Hajamaideen 46/81 A East street, Marakkadai, Latchumaangudi Vakranallur, Koothanallur Taluk Thiruvarur District PIN 614 102	Member
19	Tmt. P. Babykala	SHG – Chariperson	W/o. Th.D.Paneerselvam 15/113, Merkutheru, Pullavarayankudikadu, Needamangalam Taluk Thiruvarur District PIN 614013	Member
20	Dr.D. Periyar Ramasamy	Programme Coordinator	ICAR Krishi Vigyan Kendra Needamangalam Taluk Thiruvarur	Member

The following recommendations were made by the SAC members for further follow up action during 2024-2025.

Sl.No	Recommendations	Proposed by
1	A newly released rice variety ADT 59 may be popularized through FLD	Dr.K.Subramaniyan Director, TRRI, Aduthurai
2	A high yielding groundnut variety, VRI10 may be popularized through FLD	Dr.K.Subramaniyan Director, TRRI, Aduthurai
3	Seed production may be taken up in green manure either in ADT 1 sunnhemp / TRY 1 daincha in KVK farm / farmers' field through farmers participatory mode	Dr.K.Subramaniyan Director, TRRI, Aduthurai
4	PPFM may be promoted in Thiruvarur district for drought mitigation	Dr. A. Velayutham Dean Dr.MSSwaminathan Agricultural College and Research Institute, Eachangkottai, Thanjavur
5	A training programme on Algae management may be conducted	Th. J. Elumalai Joint Director of Agriculture Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur
6	The suitability of cultivating various traditional rice varieties may be documented	Th.M.Lakshmikandhan Deputy Director of Agriculture Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur
7	A user friendly kapas picking machine in cotton and a motorised seeder in rice may be demonstrated for farmers of the Thiruvarur district	Th.M.Lakshmikandhan Deputy Director of Agriculture Agriculture - Farmers Welfare Department, Collectorate Complex, Thiruvarur
8	The information on e-NAM project may be informed to the farmers in all trainings to be conducted	Tmt. R. Saarumathi Deputy Director of Agriculture Agricultural Business and Marketing Regulated Market campus, Thiruvarur
9	Decomposition technology may be developed / popularized among the farmers to decompose Water hyacinth (*Eichhornia sp*)	Mr. S.Vijayakumar Assistant Director of Agriculture Anna silai, Thanjavur Road, Needamangalam
10	A method to control rhinoceros beetle and rugose spiraling whitefly in coconut may be published through newspaper, TV and radio and awareness programme may be conducted to the farmers	Mr. K. Elavarasan Assistant Director of Horticulture Department of Horticulture and Plantation crops, Collectorate Complex, Thiruvarur
11	Awareness may be created among the farmers to increase water table through farm ponds	Er. R. Ravindran Executive Engineer (AED) Department of Agricultural Engineering Pavithramanickam, Thiruvarur- 610002
12	The experience of farmers having demo units under NABARD project may be documented through video and audio with QR code	Th. S. Viswanth Kanna District Development Manager NABARD, Tiruvarur 610 001
13	A training programme on silage making and enriched paddy straw may be conducted for the farmers	Dr.S. Swaminathan Deputy Director of Animal Husbandry Veterinary Hospital Campus, Nethajiroad,Thiruvarur - 610 001
14	Kolukattai grass / Subabul / Buffalo grass may	Dr.S. Swaminathan Deputy Director of Animal Husbandry

	be popularized in Thiruvarur	Veterinary Hospital Campus, Nethaji road,Thiruvarur
15	Cattle health camp may be conducted	Dr.S. Swaminathan Deputy Director of Animal Husbandry Veterinary Hospital Campus, Nethajiroad,Thiruvarur
16	Display board in relation to sericulture may be placed in KVK premises	Ms.T.Usha Assistant Inspector of Sericulture Department of Sericulture, Thiruvarur
17	Mulberry garden may be established in KVK farm for farmers' visit	Ms.T.Usha Assistant Inspector of Sericulture Department of Sericulture, Thiruvarur
18	ADT 6 / ADT 7 blackgram varieties may be popularized	Th. S. Nandakumar Big Farmer S/o. Th. P.S.Sivaprakasam 3/22, West Mandi, Alangudi, Valangaiman Taluk, Thiruvarur - 612 801
19	Training programmes may be conducted in traditional rice varieties	Th. K. Gunaseelan Small Farmer S/o. Th. Kalayanasundram 4/7, Perumal Koil Street, Sarabojipuram, Poonthottam, Kudavasal Taluk ThiruvarurDistrict, PIN 609503
20	Trainings on cultivation practices in major crops may be given to SHG	Tmt. P. Babykala SHG – Chariperson W/o. Th.D.Paneerselvam 15/113, Merkutheru, Pullavarayankudikadu, Needamangalam Taluk Thiruvarur District PIN 614013

Sd/xxx
Programme Co-ordinator