

**ANNUAL REPORT 2014-15**

**(FOR THE PERIOD APRIL 2014 TO MARCH 2015)**

**KRISHI VIGYAN KENDRA (CUDDALORE DISTRICT)**

**TAMIL NADU AGRICULTURAL UNIVERSITY**  
**KRISHI VIGYAN KENDRA – CUDDALORE**  
**TAMIL NADU, INDIA**  
**ANNUAL REPORT (2014-15)**

**PART I - GENERAL INFORMATION ABOUT THE KVK**

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

KVK Address	Telephone		E mail	Web Address
	Office	Fax		
Krishi Vigyan Kendra Vriddhachalam - 606 001 Cuddalore District Tamil Nadu	04143-238353	04143-238353	<a href="mailto:kvkvri@tnau.ac.in">kvkvri@tnau.ac.in</a>	<a href="http://www.kvkcuddalore.com">www.kvkcuddalore.com</a> <a href="http://www.tnau.ac.in">www.tnau.ac.in</a>

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

Address	Telephone		E mail	Web Address
	Office	Fax		
Tamil Nadu Agricultural University Lawley Road, Coimbatore - 641 003 Tamil Nadu	0422-2431222	0422 - 2431672	<a href="mailto:registrar@tnau.ac.in">registrar@tnau.ac.in</a>	<a href="http://www.tnau.ac.in">www.tnau.ac.in</a>

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. R.Arunachalam	04143-238896	09952197187	<a href="mailto:kvkvri@tnau.ac.in">kvkvri@tnau.ac.in</a>

**1.4. Year of sanction:** ICAR - F. No. 22 (17)/83–KVK dt 29.03.1985 of the Deputy Director General (AE), ICAR, New Delhi

### 1.5. Staff Position (as 31<sup>st</sup> March 2015)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr.R.Arunachalam	Professor and Head	M	Agricultural Extension	Ph. D	37400-67000-10000 (GP)	61750	04.12.2012	Permanent	OBC
2	SMS (Home Science)	Dr.S.Kannan	Assistant Professor	M	Home Science	Ph. D	15600-39100-8000(GP)	36700	06.08.2009	Permanent	SC
3	SMS (Animal Husbandry)	Dr. M. Malarkodi	Assistant Professor	F	Soil Science & Agrl.Chemistry	Ph.D.	15600-39100-7000 (GP)	30730	17.04.2013	Permanent	OBC
4	SMS (Agricultural Engineering)	Dr.T.Saravanan	Assistant Professor	M	Pl. Pathology	Ph. D	15600-39100-7000(GP)	30730	18.03.2013	Permanent	OBC
5	SMS (Plant Protection/ Agro Forestry)	Dr.V.Vijaya geetha	Assistant Professor	F	Seed Science & Technology	Ph. D	15600-39100-6000(GP)	30730	02.08.2010	Permanent	OBC
6	SMS (Agronomy)	Dr. K. Venkatalakshmi	Assistant Professor	F	Agronomy	Ph.D.	15600-39100-7000(GP)	30730	16.04.2013	Permanent	OBC
7	SMS (Horticulture)	Vacant									
8	Programme Assistant ( Lab Tech.)	Mrs.G.Meenalakshmi	Programme Assistant (Lab Tech.)	F	Horticulture	B.Sc. (Agri)	9300-34800-4400 (GP)	15440	28.02.2011	Permanent	SC
9	Programme Assistant (Computer)	Mr.R.Samundeeswaran	Programme Assistant (Computer)	M	Computer Science	M.C.A.	9300-34800-4400 (GP)	17490	14.11.2012	Permanent	OBC
10	Programme Assistant/ Farm Manager	Mr. R. Rajeshkannan	Farm Manager	M	Horticulture	M.Sc.(Agri)	9300-34800-4400 (GP)	18020	13.08.2010	Permanent	OBC
11	Superintendent cum Accountant	Th. P. Mohandoss	Administrative Officer	M	-	B.Sc	15600-39100-5400 (GP)	22950	14.09.2009	Permanent	SC

12	Jr. Stenographer	Mrs. T. Suganthi Rani	Superintendent	F	-	XII	9300-34800-4800 (GP)	17180	01.12.2008	Permanent	SC
13	Driver	Th. C. Jayabal	Driver	M	-	XI	9300-34800-4400 (GP)	19520	28.11.1986	Permanent	OBC
14	Driver	Th.S.Arul	Driver cum Mechanic	M	-	X	5200-20200-2400(GP)	10620	21.02.2007	Permanent	OBC
15	Supporting staff (Office Assistant)	Th. A. Deivasigamani	Office Assistant	M	-	XII	4800-10000-1300(GP)	6880	27.01.2011	Probationer	OBC
16	Supporting staff (PUSM)	Th. P. Narayanasami	PUSM	M	-		4800-10000-1300(GP)	9600	08.08.1988	Permanent	OBC

**1.6. Total land with KVK (in ha) : 20 ha**

S. No.	Item	Area (ha)
1	Under Buildings	872.62 m <sup>2</sup>
2.	Under Demonstration Units	208.66 m <sup>2</sup>
3.	Under Crops	16.1 ha
4.	Orchard/Agro-forestry	3.8 ha
5.	Others	Nil

**1.7. Infrastructural Development (2014-15):Nil**

**A) Buildings**

S. No.	Name of building	Source of Funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building					-	-	-
2.	Farmers Hostel					-	-	-
3.	Staff Quarters							
	1					-	-	-
	2							
4.	Demonstration Units							
5	Fencing					-	-	-
6	Rain Water harvesting system					-	-	-
7	Threshing floor					-	-	-
8	Farm godown					-	-	-
9	Jeep shed					-	-	-
10	Seminar hall					-	-	-

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Motor cycle- Bajaj M80 (TN 31 V 4421)	1995	20,448	7714	Under repair
Mahindra Jeep (TN 31 L 7571)	2004	4,48,196	1,79,298 km	Running
Motor cycle-Hero Honda (TN 31V 4421)	2009	48,255	33,950 km	Running
Tractor - (New)	2011	4,87,500	950 hrs	Running

**C) Equipments & AV aids**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Pentax camera	1988	7,572	Condemned
Over head projector	2004	25,488	Condemned
Slide projector	2004	14,588	Condemned
Digital camera	2006	19,900	Good
LCD projector with accessories (2 nos)	2007	1,10,000	Good
Public address system	2008	68,941	Good
Projection screen (Manual)	2009	2,500	Good
Projection screen (Electrical)	2009	28860	Good

**1.8. Details SAC meeting conducted in 2014-15**

Sl.No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.	05.09.2014	22	-	More number of interventions has to be made on the major crops like ground nut, rice and cashew	More number of OFT and FLD were proposed with respect to ground nut and rice 2015-16.
2				Vegetable commodity group is needed for Cuddalore district.	Vegetable commodity group has been started and got registered at Gunamanagalam village,vridhachalam tk.
3				Conduct farmer, extension officials and scientists interaction meet to make issue based interventions.	Interaction meeting has been conducted on issue based interventions with farmer, extension officials and scientists on 18.3.2015. The leading farmers have participated and given suggestions for plan of action.
4				Much emphasis should be given to Ragi cultivation	OFT on assessment of different ragi varieties for salt affected soil has been conducted on 2014-15
5				Demonstration on the machineries has to be done.	Training on farm machineries has been conducted on 11.02.2015

## **PART II - DETAILS OF THE DISTRICT**

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

<b>S. No</b>	<b>Farming system/enterprise</b>
1	Command areas
2	Irrigated agricultural systems
3	Rainfed agricultural systems
4	Livestock production
5	Sericulture
6	Inland aquaculture
7	Cashew Processing unit, Cashew nurseries
8	Value addition

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

<b>S. No</b>	<b>Agro-climatic Zone</b>	<b>Characteristics</b>
1.	Heavy clay soils	Command areas Rice-rice-pulses; Rice-pulses/sesame/cotton
2.	Heavy Clay soils	Tankfed areas Rice-pulses
3.	Laterite, red and black soils	Well irrigated areas Sugarcane-ratoon-rice-groundnut (3 yrs); rice-groundnut-sesame
4.	Laterite and black soils	Rainfed Groundnut-sesame

<b>S. No</b>	<b>Agro ecological situation</b>	<b>Characteristics</b>
AES-I	Sandy Clay loam, Medium texture, Normal Rainfall, Well irrigated area	Diversified agriculture
AES-II	Clay loam, Heavy texture, Normal Rainfall, Delta area	Paddy areas
AES-III	Sandy clay loam, Medium to light texture, Rainfed area.	Rainfed agriculture

### **2.3 Soil type/s**

<b>S. No</b>	<b>Soil type</b>	<b>Characteristics</b>	<b>Area in ha</b>
1.	Sandy loam	Slightly acidic to alkaline in pH Poor in water holding capacity, low in Nitrogen medium in P and K	91679
2.	Sandy	Neutral to Saline pH, poor in water holding capacity, low in Nitrogen medium in P and K.	31974
3.	Clay loam	Neutral to alkaline pH, poorly drained soil, medium in N and P and high in K.	115565
4.	Sandy Clay loam	Neutral to Saline pH, low in Nitrogen medium in P and K	128573
	Total		367791

#### 2.4. Area, Production and Productivity of major crops cultivated in the district (2014-15)

S. No	Crop	Area (ha)	Productivity (Kg/ha)	Production (Metric tons)
<b>Agricultural crops</b>				
Cereals				
1	Rice	133936	Paddy 7411 Rice 2039	6.70 (Rice)
Millets				
1	Sorghum	44	2100	0.001
2	Cumbu	2918	4635	0.14
3	Maize	23157	8166	1.82
4	Varagu	1059	2420	0..03
Pulses				
1	Redgram	815	1140	0.01
2	Blackgram	52366	846	0.45
3	Greengram	11781	710	0.09
Oilseeds				
1	Groundnut	10523	2741	0.29
2	Gingelly	4737	479	0.23
Cash crops				
1	Cotton	6905	1860	0.13
2	Sugarcane	25773	110 (Mt)	28.35
<b>Horticultural crops (2011-12)</b>				
Fruits/plantation crops				
1	Cashew nut	32261	552.9	178371
2	Banana	4250.83	97421	23571.6
3	Jack	664.91	-	4930
4	Guava	570.405	403	658.86
5	Mango	494.935	2277	4438.09
Vegetables/spices				
1	Brinjal	172.385	2542	16637.73
2	Chillies	128.170	45	436.55
3	Bhendi	153.12	757	8699.58
4	Tapioca	3252.010	101408	29790.82
Flower crops				
1	Rose	35.140	--	--
2	Jasmine-Gundumalli	143.590	--	--
3	Jasmine-Mullai	250.315	--	--
4	Crossandra	43.200	--	--

\*\* Source: O/o. Joint Director of Agriculture, Cuddalore and Hand book of statistics,2013



## 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April 2014	0	37.3	24.3	74.5
May 2014	157.6	36.7	26.5	77.0
June 2014	61.0	37.6	27.2	74.6
July 2014	54.6	36.3	26.5	76.8
August 2014	164.2	35.1	25.7	81.4
September 2014	134.8	35.7	25.2	79.2
October 2014	162.8	32.6	24.6	86.0
November 2014	148.7	29.9	23.5	88.7
December 2014	83.2	29.9	23.2	86.8
January 2015	4.4	31.3	20.8	85.6
February 2015	0	33.0	20.6	87.3
March 2015	0	36.5	23.2	77.5
<b>Total/Mean</b>	<b>971.3</b>	<b>34.3</b>	<b>24.3</b>	<b>81.3</b>

\* Source: Regional Research Station, Vriddhachalam, Cuddalore district, Tamil Nadu

## 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2012-13)

Category	Population	Production('000 tonnes)	Productivity
<b>Cattle</b>	337451	174 lakh litres	--
<i>Crossbred</i>	150.976	5412	--
<i>Indigenous</i>	23.562	777	--
<b>Buffalo</b>	19784	15.106	--
<b>Sheep</b>	59255	6968	--
<i>Crossbred</i>		--	--
<i>Indigenous</i>		--	--
<b>Goats</b>	305366		--
<b>Pigs</b>	<b>17827</b>		--
<i>Crossbred</i>		--	--
<i>Indigenous</i>		--	--
<b>Rabbits</b>		--	--
<b>Poultry</b>	3805549	165.121 lakh nos.	
Hens		--	--
<i>Desi</i>		--	--
<i>Improved</i>		--	--
Ducks	11614		--
Turkey and others	--	--	--

Category	Area	Production	Productivity
<b>Fish</b>			--
<i>Marine</i>	57.5 km	426735	477943.69
<i>Inland</i>	45 km	184753.44	103122.52
Prawn	--	--	--
Scampi	--	--	--
Shrimp	--	--	--

\* Source: Handbook of Cuddalore district, O/o the Deputy Director, Statistics, Cuddalore

2.7 District profile has been **Updated** for 2013-14 Yes / No: Yes

## 2.8 Details of Operational area / Villages

Sl. No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Chidambaram	Parangipettai	B. Mutlur	3 years	Rice, sorghum, blackgram, groundnut, vegetables, livestock, poultry, Inland aquaculture	The productivity is less in cropping system alone and income is also low	Integrated Farming System
			B.Mutlur, Keezhamungiladi	Three years		Weed problem causes the yield loss up to 60% in direct sown paddy	Assessment of effective weed control measures in direct seeded paddy
			Vallampadugai, Thatchukadu	Two years		Water scarcity during growth period and Lack of knowledge about moisture mitigation practices in samba paddy	Assessment of drought mitigation technology in pulses
			Kotthatai	Three years		Lack of awareness about the new rice variety for late samba as well as direct seeded rice varieties	Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district
			Thatchukadu	Three years		Labour scarcity and lack of knowledge about use of post emergence herbicides in pulses	Demonstration of post emergence herbicide for black gram
2.	Vridhachalam	Vridhachalam	Perumulai	One year	Rice, maize, red gram, black gram, ground nut, gingelly, sugarcane, cotton, vegetables, banana, tapioca, livestock,	Soil sodicity. Poor soil physical condition and lower nutrient availability in sodic soil and lack of awareness about the tolerant varieties leads to lower yield in Ragi	Assessment of different Ragi varieties for salt affected soil
			Perumulai Sathiyavadi	Three years		Lack of awareness about the multi cut fodder sorghum	Demonstration of Fodder Sorghum CO31

			Chinnavadavadi	Three years	poultry, Inland aquaculture	Hard pan formation in sub-surface layer of alfisols leads poor yield in groundnut	Demonstration of chiseling in ground nut under alfisols
			Alichikudi	Three years		The productivity is less in cropping system alone and income is also low	Integrated Farming System
			Palayapattinum, Vijayamanagaram, Aladi, Sathukudal, T.Pavazhankudi, M.Patti, Puliur,	Two years		local varieties prone to shoot and fruit borer and lack of awareness about high yielding varieties in brinjal	Assessment of suitable brinjal hybrid for Cuddalore district
			M. Patty, Parur, Pudukuraipettai	Three years		Low yield from existing method of planting in banana	Demonstration of high density planting method in banana
			T.Pavazhankudi,	Two years		Soil sodicity. Poor soil physical condition and lower nutrient availability in sodic soil leads to lower yield in paddy	Demonstration of TNAU rice TRY3 in salt affected soils.
			Sathiyavadi	Three years		Low milk yield. No enriched feed materials for livestock. Effective use of sugarcane tops.	Demonstration of enriching and ensiling of sugarcane tops for higher milk yield in cows
			Sathamangalam	Two years		Samba paddy is frequently affected by moisture stress Lack of knowledge about moisture mitigation practices	Demonstration of drought management technology packages in direct sown paddy
			Kuppanatham, Puliur, Vridhachalam	Two years		Lack awareness about newly released high yielding varieties in blackgram	Demonstration of Black gram MDU1
			Manavalanallur, Palayapattinum, Muthanakuppam	Two years		Non availability of well decomposed coco peat for seedling production under shade net	Assessment of cocopeat bioconversion techniques and its performance under protray nursery

			Sathiyam,Kuppan atham,,Vridhachal am,Palayapattina m	Three years		Labour scarcity and lack of knowledge about use of post emergence herbicides in pulses	Demonstration of post emergence herbicide for black gram
			Palyapattinum,Pul iyur,Vijayamanag aram,Natham, Co.Kothanur,Sath ukudal,Sathiyam,P udukurai pettai	Two years		Lack of awareness about high yielding varieties in vegetables	Demonstration of bush type lablab CO (GB)14
3.	Kattuman nar koil	Kattumannar koil	Sri Aathivaraganallur	Two years	Rice, red gram, black gram, green gram, ground nut, gingelly, vegetables, livestock, poultry, Inland aquaculture	The productivity is less in cropping system alone and income is also low	IFS as a special programme
			Sriputhur, Esanur, Nagarapadi	Two years		Soil sodicity. Poor soil physical condition and lower nutrient availability in sodic soil leads to lower yield in paddy	Demonstration of TNAU rice TRY3 in salt affected soils.
			Sri Aathivaraganallur	Two years		The productivity is less in cropping system alone and income is also low	Integrated Farming System
			Sri Neduncherry, Sri puthur, Ambujavalli pettai	Two years		Samba paddy is frequently affected by moisture stress Lack of knowledge about moisture mitigation practices	Demonstration of drought management technology packages in direct sown paddy
			Sri Puthur	One year		local varieties prone to shoot and fruit borer lack of awareness about high yielding varieties	Assessment of suitable brinjal hybrid for Cuddalore district
4.	Thitakudi	Nallur	Veppur	Two year	Rice, maize, cumbu, ragi, blackgram, groundnut, sugarcane, livestock, poultry	Severe incidence of rhizome rot and low yield in turmeric	Demonstration of IDM for Rhizome rot in turmeric
			Illangiyanur, vijayamanagaram, Pellandurai	Three years	local varieties prone to shoot and fruit borer lack of awareness about high yielding varieties in brinjal	Assessment of suitable brinjal hybrid for Cuddalore district	

		Mangaluru	Illangiyannur, Sathiyam	Two years		Weed problem causes the yield losses up to 60%	Assessment of effective weed control measures in direct seeded paddy
			T. Agaram	Two years		Lack of awareness about the promising quality rice variety for Kuruvai season	Demonstration of Rice CO 51
			T. Agaram, Perumulai	One year		Soil sodicity. Poor soil physical condition and lower nutrient availability in sodic soil and lack of awareness about the tolerant varieties leads to lower yield in Ragi	Assessment of different Ragi varieties for salt affected soil
			Perumulai	One year		Water scarcity during growth period. Lack of awareness about the drought tolerant varieties	Assessment of drought tolerant ground nut varieties
		Mangaluru	Perumulai	One year		The productivity is less in cropping system alone and income is also low	IFS as a special programme
			Perumulai, Chinna parur	Two year		Low productivity and lack of knowledge on hybrid in Bhendi	Assessment of suitable Co (hy) 1 bhendi hybrid for Cuddalore district
			Reddakurchi, Kolavai, Mangulam	Two years	Rice, maize, cumbu, ragi, varagu, black gram, red gram, ground nut, gingelly, cotton, sugarcane, livestock, poultry	Severe incidence of rhizome rot and low yield in turmeric	Demonstration of IDM for rhizome rot in turmeric
			T. Agaram	Two years		Soil sodicity. Poor soil physical condition and lower nutrient availability in sodic soil leads to lower yield in paddy	Demonstration of TNAU rice TRY3 in salt affected soils
			V. Puthur	One year		Weed problem causes the yield loss up to 60%	Assessment of effective weed control measures in direct seeded paddy

6.	Kurinchipadi	Kurinchipadi	Karupanchavadi, Paikaranatham	Three years	Rice, maize, cumbu, thinai, groundnut, vegetables, livestock, poultry	Lack of awareness about the promising quality rice variety for Kuruvai season	Demonstration of Rice CO 51
			Krishnakuppam	One year		Lack of awareness about the new rice variety for late samba as well as direct seeded rice varieties	Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district
			Anukampattu	Two years		Non availability of well decomposed coco peat for seedling production under shade net	Assessment of cocopeat bioconversion techniques and its performance under protray nursery
7.	Cuddalore	Cuddalore	Vazhisothanai-palayam	One year	Rice, maize, cumbu, ragi, blackgram, red gram, groundnut, gingelly, sugarcane, coconut, palm oil, tapioca banana, livestock, poultry	Low yield from existing method of planting in banana	Demonstration of high density planting method in banana

## 2.9 Priority thrust areas

S. No	Thrust area
1	Evaluation and demonstration of new high yielding varieties and hybrids
2	Introduction of alternate cropping system and crop management practices
3	Integrated nutrient management for improving crop productivity and soil health
4	Improving the productivity of horticultural crops
5	Integrated pest and disease management
6	Farm mechanization for major oil seeds, cereals and horticultural crops
7	Self employment and entrepreneur development programmes
8	Problem soil management
9	Production and supply of quality seed / seedling materials
10	Water stress mitigation and water resource conservation
11	Integrated Farming System

### PART III - TECHNICAL ACHIEVEMENTS

#### 3.A. Details of target and achievements of mandatory activities

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
7	7	43	43	13	12*	106	101

\*One FLD on Demonstration of Nandhanam II Turkey was withheld due to budget constraint.

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
55	64	4000	4724	500	610	3000	3852

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	-	Cashew grafts – VRI 3 (9803 nos.)	Cashew grafts – VRI 3 (9803 nos.)
		Jack grafts – PLR 1 (50 nos.)	Jack grafts – PLR 1 (50 nos.)
		Medicinal plant seedlings (1350 nos.)	Medicinal plant seedlings (1350 nos.)
		Ornamental plant seedlings (56 nos.)	Ornamental plant seedlings (56 nos.)

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
Telecherry goat (4 nos.)	Telecherry goat (4 nos.)	Vermi compost (1090 kgs)	Vermi compost (1090 kgs )

**3.B1. Abstract of interventions undertaken based on thrust areas identified for the district as given in Sl.No.2.7**

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										No.	Kg
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products		
01	Crop Management	Direct seeded paddy	Weed problem causes the yield losses up to 60%	Assessment of effective weed control measures in direct seeded paddy	--	-	-	2	25	Anna 4 seeds-150 kgs Daincha seeds -20kgs	--	--	--		
02	Varietal evaluation	Ground nut	Water scarcity during growth period. Lack of awareness about the drought tolerant varieties	Assessment of drought tolerant Ground nut varieties	--	1	1	1	25	Ground nut Seeds CO 7- 50 kgs Kadiri 9- 75 kgs GJG 17- 75 kgs	--	--	--	--	



03	Varietal evaluation	Ragi	Soil sodicity. Poor soil physical condition and lower nutrient availability in sodic soil and lack of awareness about the tolerant varieties leads to lower yield in Ragi	Assessment of different Ragi varieties for salt affected soil	--	2	2	-	15	Ragi seeds ML365 -10kgs CO (Ra)-15 kgs TRY 1- 5 kgs	--	--	--	--
04	Varietal evaluation	Bhendi	Low productivity and lack of knowledge on hybrid	Assessment of suitable CO (hy) 1 Bhendi hybrid for Cuddalore district	--	2	2	-	5	CO (Hy) 1- 2.5 kgs	--	--	--	--
05	Varietal evaluation	Brinjal	local varieties prone to shoot and fruit borer lack of awareness about high yielding varieties	Assessment of suitable brinjal hybrid for Cuddalore district	-	2	2	-	5	Brinjal hybrid (Neelima) - 1.150kgs	--	--	--	--

06	Crop Management	Rice fallow pulses	Water scarcity during growth period and Lack of knowledge about moisture mitigation practices	Assessment of different management strategies to mitigate drought in rice fallow pulses	-	1	1	2	10		--	--	--	PPFM-5 1 Bacterial consortia-10 kgs
07	Others	Coco peat bio conversion	Non availability of well decomposed coco peat for seedling production under shade net	Assessment of cocopeat bioconversion techniques and its performance under protray nursery	-	1	1	-	10		--	--	--	Arka microbial consortium decomposer-25 kg Coir pith-820 kgs Pleurotus spawn-50 packets.
08	Variety demonstration	Paddy	Lack of awareness about the promising quality rice variety for Kuruvai season	-	Demonstration of rice CO 51	2	2	2	15	CO 51 seeds-150 Kgs		-	-	-

09	Variety demonstration	Paddy	Soil sodicity. Poor soil physical condition and lower nutrient availability in sodic soil leads to lower yield in paddy	-	Demonstration of TNAU rice TRY 3 in salt affected soils.	-	-	1	12	TRY 3 paddy seeds – 200 Kgs	--	--	--	--
10	Crop Management	Direct sown Paddy	Samba paddy is frequently affected by moisture stress Lack of knowledge about moisture mitigation practices	-	Demonstration of drought management technology packages in direct sown paddy	1	1	2	20	Anna 4 paddy seeds -210 kgs	-	--	--	--
11	Crop Management	Direct sown Paddy	Lack of awareness about the new rice variety for late samba as well as direct seeded rice varieties		Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district	1	1	2	13	Anna 4 paddy seeds -150 kgs	--	--	--	--

12	Crop Management	Ground nut	Hard pan formation in sub-surface layer of alfisols	-	Demonstration of chiseling in ground nut under alfisols	1	1	1	25	-	-	--	--	--
13	Crop Management	Black gram	Labour scarcity and lack of knowledge about use of post emergence herbicides	-	Demonstration of post emergence herbicide for black gram	1	1	1	20	--	--	--	--	--
14	Crop Management	Banana	Low yield from existing method of planting	-	Demonstration of high density planting method in banana	-	-	-	8	-	--	--	--	Pseudomonas -5 kgs <i>Trichoderma viride</i> -5 kgs
15	Crop management	Turmeric	Severe incidence of rhizome rot and low yield	-	Demonstration of IDM for rhizome rot in turmeric	-	-	-	6	-	-	-	-	Azospirillum- 40 kgs Phosphobacteria- 41 kgs <i>Trichoderma viride</i> -12.5kgs Pseudomonas- 22.5kgs

16	Variety demonstration	Black gram	Lack awareness about newly released high yielding varieties in blackgram	-	Demonstration of Blackgram MDU 1	1	1	1	10	Black gram-seeds (MDU 1)-4 kgs	-	-	-	-
17	Variety demonstration	Lablab	Lack of awareness about high yielding varieties	-	Demonstration of Bush type lablab CO (GB) 14	2	2	-	6	Bush type lablab CO (GB) 14 -80 kgs	-	-	-	-
18	Variety demonstration	Fodder sorghum	Lack of awareness about the multi cut fodder sorghum	-	Demonstration of Fodder sorghum CO 31	-	-	-	12	Fodder sorghum CO 31 seeds -8 kgs	-	-	-	-
19	Nutrient management	Sugarcane tops	Low milk yield No enriched feed materials for livestock Effective use of sugarcane tops	-	Demonstration of enriching and ensiling of sugarcane tops for higher milk yield in cows	1	1	-	5	-	-	-	-	-

	<b>IFS</b>													
20	Farming system	Wet land,dry land	The productivity is less in cropping system alone and income is also low	-	Integrated Farming system-wet land and dry land	2	2	1	7	-	--	Goats - 4 Chicks -150 nos.	--	chick feed-34kgs

### 3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1	Assessment of effective weed control measures in direct seeded paddy	CRRI, Cuttack	Direct seeded paddy	1	-	2	Demonstration of herbicide spray and co culture of Sesbania
2	Assessment of drought tolerant Ground nut varieties	TNAU, Coimbatore	Ground nut	1	-	2	Demonstration of line sowing and gypsum application and foliar spray of micro nutrient
3	Assessment of different Ragi varieties for salt affected soil	GKVK, UAS, Bangalore	Ragi	1	-	3	Method demonstration on soil reclamation using gypsum, ZnSO <sub>4</sub> application, salt resistant varieties, ICMP, field visit, on-campus and off-campus training
4	Assessment of suitable CO (hy) 1 Bhendi hybrid for Cuddalore district	TNAU, Coimbatore	Bhendi	1	-	2	Method demonstrations on seed treatment, planting method and IPM, field visit, on-campus and off-campus training
5	Assessment of suitable brinjal hybrid for Cuddalore district	TNAU, IIHR, KAU	Brinjal	1	-	2	Method demonstrations on seed treatment, planting method and IPM, and field visit
6	Assessment of different management strategies to mitigate drought in rice fallow pulses	TNAU and CRIDA	Rice fallow pulses	1	-	2	Demonstration like drought mitigation strategies, time and methods of application of KCL
7	Assessment of coco peat bioconversion techniques and its performance under protray nursery	IIHR and TNAU	Media preparation for vegetables	1	-	2	Demonstration on bed formation and inoculation of microbial consortia.
8	Demonstration of rice CO 51	TNAU, Coimbatore	Paddy	-	1	2	Method demonstrations on seed treatment, planting method and IPM and field visit
9	Demonstration of TNAU rice TRY 3 in salt affected soils.	TNAU, Coimbatore	Paddy	-	1	2	Method demonstrations on seed treatment, planting method and IPM and field visit

10	Demonstration of drought management technology packages in direct sown paddy	TNAU, Coimbatore	Direct seeded paddy	-	1	3	Demonstration like drought mitigation strategies, time and methods of application PPFM and KCL
11	Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district	TNAU, 2009	Paddy	-	1	2	Demonstration of sowing A, B and R lines, rouging, removal of off type's removal, INM, IPM.
12	Demonstration of chiseling in ground nut under alfisols	CPG,2012	Ground nut	-	1	2	Method demonstration of land preparation, gypsum application, micro nutrient application
13	Demonstration of post emergence herbicide for black gram	CPG,2012	Black gram	-	1	2	Method demonstrations on seed treatment, planting method and IPM, DAP foliar spray and field visit
14	Demonstration of high density planting method in banana	CPG,2011	Banana		1	2	Demonstration of sucker treatment, ICMP, field visit, IPM, on-campus and off-campus training
15	Demonstration of IDM for rhizome rot in turmeric	TNAU, 2011	Turmeric	-	1	2	Demonstration of rhizome treatment, ICMP, field visit, IPM, on-campus and off-campus training
16	Demonstration of Blackgram MDU 1	TNAU, 2014	Black gram	-	1	2	Method demonstrations on seed treatment, planting method and IPM, DAP foliar spray and field visit
17	Demonstration of Bush type lablab CO (GB) 14	TNAU, 2007	lablab	-	1	2	Method demonstrations on seed treatment, planting method and IPM, field visit, on-campus and off-campus training
18	Demonstration of Fodder sorghum CO 31	TNAU	Fodder sorghum	-	1	1	Method demonstrations planting method, field visit
19	Demonstration of enriching and ensiling of sugarcane tops for higher milk yield in cows	TANUVAS	Livestock	-	1	2	Demonstration of ensiling sugarcane tops with urea and molasses and formation of heap and field visit



20	Integrated Farming system-wet land and dry land	TNAU	Farming system	-	1	4	Demonstration of IFS system, on-campus and off-campus training
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**3.B2 contd..**

No. of farmers covered															
OFT				FLD				Training				Extension activities			
General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
27	3	4	-	64	3	7	-	2422	820	983	499	3232	873	553	198

**PART IV - ON FARM TRIAL****3. A1. Abstract on the number of technologies assessed in respect of crops**

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	1	1	-	-	2	-	-	-	-	4
Integrated Crop Management	1		1	-	-	-	-	-	-	2
Resource Conservation Technology	-	-	-	-	-	-	-	-	-	-
Others					1					1
<b>Total</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7</b>

**4.A2. Abstract on the number of technologies refined in respect of crops** : Nil

**4.A3. Abstract on the number of technologies assessed in respect of livestock enterprises** : Nil

**4.A4. Abstract on the number of technologies refined in respect of livestock enterprises** : Nil

**4.B. Achievements on technologies Assessed and Refined****4.B.1. Technologies Assessed under various Crops**

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Varietal Evaluation	Ragi	Assessment of different Ragi varieties for salt affected soil	5	5	2 ha
	Ground nut	Assessment of drought tolerant Ground nut variety	3	3	1.2 ha
	Bhendi	Assessment of suitable CO (hy) 1 Bhendi hybrid for Cuddalore district	5	5	2 ha
	Brinjal	Assessment of suitable brinjal hybrid for Cuddalore district	10	10	2.5 ha

Integrated Crop Management	Direct seeded paddy	Assessment of effective weed control measures in direct seeded paddy	5	5	2.0 ha
	Rice fallow pulses	Assessment of different management strategies to mitigate drought in rice fallow pulses	10	10	2.0 ha
<b>Others</b>	Cocopeat bio conversion	Assessment of cocopeat bioconversion techniques and its performance under protray nursery	5	5	-
<b>Total</b>	7		43	43	16.1

**4.B.2. Technologies Refined under various Crops : Nil**

**4.B.3. Technologies assessed under Livestock and other enterprises : Nil**

**4.B.4. Technologies Refined under Livestock and other enterprises : Nil**

**4.C1. Results of Technologies Assessed**

## Results of On Farm Trial

### OFT 1: Assessment of drought mitigation strategies for rice fallow pulses

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Blackgram	Rice fallow	Water scarcity and less care	Assessment of different management strategies to mitigate drought in rice fallow pulses	10	TO <sub>1</sub> – Farmers' practice (Spraying of KCl @ 1%)  TO <sub>2</sub> - Spraying of PPFM @ 200ml/ac at boot leaf stage and PI  TO <sub>3</sub> - Spraying of Bacterial consortia (PT+B30+G12)	No. of Pods/plant  No. of seeds/pod  Seed Yield kg/ha	24  6  454.2 (Results on the TO <sub>2</sub> – the best technology alone given here)	Spraying of PPFM @ 200 ml/ac at Flowering stage increased the no of pods/plant, Seeds/pod and seed yield.	Spraying of PPFM @ 200 ml/ac at flowering was easy and observed more yield even under stress condition	No	Does not arise

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option: 1 (Farmers' practice - Spraying of KCL @ 1%)	TNAU	364.0	kg/ha	5520	1.38
Technology option 2: Spraying of PPFM @ 200 ml/ac at boot leaf stage and PI	TNAU	454.2	kg/ha	10,481	1.72
Technology option 3: Spraying of Bacterial consortia (PT+B30+G12) at 30 DAS	CRIDA	409.4	kg/ha	8,017	1.55

**4.C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details**

1.	<b>Title of Technology Assessed</b>	:	Assessment of different management strategies to mitigate drought in rice fallow pulses				
2.	<b>Problem Definition</b>	:	<ul style="list-style-type: none"> <li>• Low moisture during rice fallow pulses</li> <li>• Drought and non availability of water leads to reduction in the crop yield</li> </ul>				
3.	<b>Details of technologies selected for assessment</b>	:	Technology option 1  Spraying of KCl @ 1%	Technology option 2  Spraying of PPFM @ 200 ml/ac at boot leaf stage and PI	Technology option 3:  Spraying of Bacterial consortia (PT+B30+G12)		
4.	<b>Source of technology</b>	:	Farmers' practice TNAU	TNAU	CRIDA		
5.	<b>Production system and thematic area</b>	:	Crop management				
6.	<b>Performance of the Technology with performance indicators</b>	:	<p>The growth and yield attributes were recorded in rice fallow blackgram following application of different mitigation strategies. Among them, <b>Spraying of PPFM @ 200 ml/ac at flowering have increased the number of pods/plant, number of seeds/pod and grain yield per ha (19.8 % increased yield over control)when compared to other options</b> viz., Spraying of KCl @ 0.1% and spraying with Bacterial consortia (PT+B30+G12). However, spraying with Bacterial consortia (PT+B30+G12) have also increased the yield (11.1 % increase over farmer's practice) and performed better in stress condition</p>				
7.	<b>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</b>		Spraying of DAP	Spraying KCl	Agronomic practices	Seed treatment	Post harvest technology
			85 %	55 %	75%	55%	65%
8.	<b>Final recommendation for micro level situation</b>	:	Spraying of PPFM @ 200 ml/ac flowering is suitable for rice fallow pulses cultivation in Cuddalore district.				
9.	<b>Constraints identified and feedback for research</b>	:	Nil				
10.	<b>Process of farmers participation and their reaction</b>	:	The farmers have realized the use and effect of mitigation practices on crop growth and yield. The farmers were fully aware about benefits of the mitigation strategies tested in the OFT.				

**OFT 2: Assessment of drought tolerant ground nut varieties**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Ground nut	Rain fed	Water scarcity and lack of awareness about the drought tolerant varieties	Assessment of drought tolerant ground nut varieties	3	TO <sub>1</sub> – Farmers' practice (VRI-2) TO <sub>2</sub> – Ground nut variety CO7 TO <sub>3</sub> – Ground nut variety Kadiri 9 TO <sub>3</sub> . Ground nut variety GJG-17	1.No.of pods/plant (Nos.) 2.100 seed weight (g) 3.Yield (kg/ha)	21 48.9 2350	Ground nut variety CO 7 performed better than farmers practice, which is 24.6 per cent higher than the farmers practice of VRI 2.	Farmers were satisfied with the CO7 ground nut performance. It withstand early drought well when compared to other varieties.	Nil	Doesn't arise

**Contd..**

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 – Farmers' practice (VRI 2)	-	1770	kg/ha	88,117	2.7
Technology option 2 - CO7	TNAU	2350	kg/ha	1,14,366	3.5
Technology option 3 - Kadiri 9	ANGRAU	2085	kg/ha	97,817	3.0
Technology option 4 - GJG 17	JAU	1950	kg/ha	89,383	2.7

**4.C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following Details**

1.	Title of Technology Assessed	:	Assessment of drought tolerant ground nut varieties				
2.	Problem Definition	:	Water scarcity and lack of awareness about the drought tolerant varieties				
3.	Details of technologies selected for assessment	:	Farmers practice VRI 2	Technology option 1 CO-7	Technology option 2 Kadiri 9	Technology option 3 GJG17	
4.	Source of technology	:	TNAU	TNAU	ANGRAU	JAU	
5.	Production system and thematic area	:	Rain fed and varietal evaluation				
6.	Performance of the Technology with performance indicators	:	The highest yield under rain fed situation was obtained in CO-7 Ground nut (2350 kg/ha) variety than Kadiri 9 (2085 kg/ha), GJG-17 (1950 kg /ha) and farmers practice of VRI 2.CO7 ground nut variety recorded 24.6 % higher yield than farmers practice (VRI 2)				
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques		Seed treatment / seedling dip	Agronomic practices	INM	IPM	Post harvest technology
			45%	80%	70%	65%	60%
8.	Final recommendation for micro level situation	:	Ground nut variety CO 7 performs better under rain fed situation of Cuddalore district.				
9.	Constraints identified and feedback for research	:	Constraints identified were nil and use of micro sprinkler under drought through harvested water has to be studied.				
10.	Process of farmers participation and their reaction	:	Demonstration of gypsum application in ground nut was produced higher yield and farmers were satisfied with the increased pod yield.				

**OFT 3: Assessment of effective weed control measures in direct seeded paddy**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Direct seeded paddy	Irrigated	Weeds causes the yield loss up to 60 % and farmers are not known about the suitable method of weed control	Assessment of effective weed control measures in direct seeded paddy	5	<p>TO<sub>1</sub> – Hand weeding thrice (15,30 &amp; 45 DAS)</p> <p>TO<sub>2</sub> – Pretilachlor - 0.45 kg /ha-3DAS, Azimsulfuron 50 DF35 g/ha-20 DAS, Hand weeding -45 DAS</p> <p>TO<sub>3</sub> – Co culture of <i>Sesbania aculata</i> &amp; Killing the sesbania at 25-30 DAS using 2,4 D ester 0.4 - 0.5 kg/ha</p> <p>TO<sub>3</sub>. Bispyribac (25 gai/ha) + azimsulfuron (17.5 g ai/ha)-15-25 DAS</p>	<p>Total no.of weeds (Grasses, BLW and sedges)/ m<sup>2</sup></p> <p>No. of tillers/hill</p> <p>1000 seed weight (g)</p> <p>Yield (kg/ha)</p>	<p>25</p> <p>14</p> <p>25.8</p> <p>4914</p>	<p>The application of Bispyribac (25 g ai/ha) + azimsulfuron (17.5 g ai/ha) on 15-25 DAS recorded 31.2 per cent higher income than the hand weeding . But with regard to yield (5049 kg/ha) and no.of weed (17/m<sup>2</sup>) hand weeding recorded better than other treatments</p>	<p>Application of Bispyribac (25 g ai/ha) + azimsulfuron (17.5 g ai/ha) on 15-25 DAS is economically viable as well controls the weeds in early stage of the crop.</p>	-	Doesn't arise

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Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 – Hand weeding thrice (15,30 & 45 DAS)	-	5049	kg/ha	17,729	1.47
Technology option 2 – Pretilachlor -0.45 kg /ha-3DAS,Azimsulfuron 50 DF35 g/ha-20 DAS, Hand weeding -45 DAS	TNAU CPG (2012)	4996	kg/ha	19,242	1.78
Technology option 3 – Co-culture of <i>Sesbania aculata</i> & Killing of Sesbania at 25-30 DAS using 2,4 D ester 0.40-0.5 kg/ha	NAIP Recommendation, ICAR, New Delhi, (2010)	4838	kg/ha	24,849	1.87
Technology option 4– Bispyribac (25 gai/ha) + azimsulfuron (17.5 g ai/ha)-15-25 DAS	CRRI, Cuttack (2009)	4914	Kg/ha	25,779	1.91



**4.C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following Details**

1.	Title of Technology Assessed	:	Assessment of effective weed control measures in direct seeded paddy				
2.	Problem Definition	:	Weeds causes the yield loss up to 60 % and farmers are not known about the suitable method of weed control				
3.	Details of technologies selected for assessment	:	Farmers practice	Technology option 1	Technology option 2	Technology option 3	
			Hand weeding thrice 15,30 &45 DAS	Pretilachlor - 0.45 kg /ha-3DAS,Azimsulfuron 50 DF35 g/ha-20 DAS, Hand weeding - 45 DAS	Co-culture of <i>Sesbania aculata</i> & Killing the <i>Sesbania</i> at 25-30 DAS using 2,4 D ester 0.40-0.5 kg/ha	Bispyribac (25 gai/ha) + azimsulfuron (17.5 g ai/ha)-15-25 DAS	
4.	Source of technology	:	-	TNAU CPG (2012)	NAIP Recommendation, ICAR, New Delhi, (2010)	CRRI, Cuttack (2009)	
5.	Production system and thematic area	:	Irrigated and crop management				
6.	Performance of the Technology with performance indicators	:	The application of Bis pyribac (25 g ai/ha) + azimsulfuron (17.5 g ai/ha) on 15-25 DAS recorded 31.2 per cent higher income than the hand weeding .But with regard to yield (5049 kg/ha) and no.of weed (17/m <sup>2</sup> ) hand weeding recorded better than other treatments.				
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques		Seed treatment / seedling dip	Agronomic practices	INM	IPM	Post harvest technology
			50%	75%	70%	60%	60%
8.	Final recommendation for micro level situation	:	The highest net return was obtained in the application of Bispyribac (25 g ai/ha) + azimsulfuron (17.5 g ai/ha) on 15-25 DAS. But with respect to yield and no.of weeds/m <sup>2</sup> area, farmers practice (hand weeding) was recorded better than remaining treatment.				
9.	Constraints identified and feedback for research	:	Constraints identified is nil and Machine has to be provided to the farmer at subsidized, price to encourage co culture				
10.	Process of farmers participation and their reaction	:	Farmers were participated in herbicide application and co -culture of sesbania and they were satisfied about the weed control measures.				

**4. D1. Results of Technologies Refined:**

**-Nil**

**OFT 4: Assessment of Ragi varieties for salt affected soils**

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Ragi	Irrigated	Poor soil properties and cultivation of local variety leads to lower productivity in sodic soil	Assessment of Ragi varieties for salt affected soils	5	TO <sub>1</sub> Local variety TO <sub>2</sub> TRY 1 TO <sub>3</sub> Co (Ra) 15 TO <sub>4</sub> ML 365	Finger length (cm) No. of tillers/hill (Nos) Yield (kg/ha)	11 10.00 3492	ML 365 Ragi variety may be recommended for salt affected soils of Cuddalore district during samba season for getting higher return.	ML 365 ragi variety performed well under salt affected soil	-	Doesn't Arise

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Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 – Farmers' practice (VRI2)	FR	2386	kg/ha	18,948	1.8
Technology option 2 - TRY 1	TNAU	2606	kg/ha	22,908	1.95
Technology option 3 - Co (Ra) 15	TNAU	3132	kg/ha	32,376	2.4
Technology option 4 - ML 365	GKVK, UAS, Bengaluru	3492	kg/ha	38,856	2.6

**1. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details**

1.	<b>Title of Technology Assessed</b>	:	Assessment of Ragi varieties for salt affected soils				
2.	<b>Problem Definition</b>	:	Poor soil properties and cultivation of local variety leads to lower productivity in sodic soil				
3.	<b>Details of technologies selected for assessment</b>	:	Local variety	TRY 1	Co (Ra) 15	ML 365	
4.	<b>Source of technology</b>	:	FR	TNAU	TNAU	GKVK, UAS, Bengaluru	
5.	<b>Production system and thematic area</b>	:	Irrigated; Varietal evaluation				
6.	<b>Performance of the Technology with performance indicators</b>	:	Cultivation of ML 365 Ragi variety recorded 31.6 % higher grain yield over local variety. ML 365 also recorded more number of tillers and higher finger length than others				
7.	<b>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</b>	:	Performance of ML 365 Ragi variety under salt affected soil is very good and produced more tillers per hill and is found to be resistant to pest and diseases.				
			Soil reclamation	Agronomic practices	INM	IPM	Post harvest technology
			45 %	75 %	65 %	50 %	65 %
8.	<b>Final recommendation for micro level situation</b>	:	ML 365 Ragi variety may be recommended for salt affected soils of Cuddalore district during samba season for getting higher return.				
9.	<b>Constraints identified and feedback for research</b>	:	Nil				
10.	<b>Process of farmers participation and their reaction</b>	:	Farmers have actively participated in each and every activity in conducting OFT. The performance of ML 365 Ragi variety and its efficiency under sodic soil conditions were well understood by the farmers. One of the farmers followed the system of Ragi cultivation technique and recorded higher yield.				

**OFT 5: Assessment of suitable Co (hy) 1 Bhendi hybrid for Cuddalore district**

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Bhendi	Irrigated	Low yield from private hybrid High incidence of yellow vein mosaic disease	Assessment of suitable bhendi hybrid in cuddalore district	5	TO <sub>1</sub> – Farmers’ Practice (Private hybrid)  TO <sub>2</sub> – Co Bh (Hy)-1  TO <sub>3</sub> – Kasi bairav (IIVR, 2002)	Yield (kg/ha)  Net return  Yellow vein mosaic disease (%)	11827 kg/ha  Rs 53616  3.15 % (Results on the TO <sub>2</sub> – the best technology alone given here)	Co (Bh) Hy-1 is performed better and yielded high fruit yield.	The yellow vein mosaic disease is low in the Co (Bh) Hy-1	No	Does not arise

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Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option :1 (Farmers’ practice – Private hybrid)	--	9844	kg/ha	37752	1.92
Technology option 2: Co Bh (Hy)-1	TNAU	11827	kg/ha	53616	2.30
Technology option 3: Kasi bairav	IIVR	10075	kg/ha	39600	1.97

**1. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details**

1.	<b>Title of Technology Assessed</b>	:	Assessment of suitable bhendi hybrid in cuddalore district				
2.	<b>Problem Definition</b>	:	<ul style="list-style-type: none"> <li>• Low yield from private hybrid</li> <li>• Lack of awareness on high yielding hybrid</li> </ul>				
3.	<b>Details of technologies selected for assessment</b>	:	Technology option 1 Private Hybrid	Technology option 2 Co Bh (Hy)-1	Technology option 3: Kasi bairav		
4.	<b>Source of technology</b>	:	Farmers' practice	TNAU	IIVR		
5.	<b>Production system and thematic area</b>	:	Irrigated and crop management				
6.	<b>Performance of the Technology with performance indicators</b>	:	The Co (Bh) Hy- 1 hybrid have performed better by producing higher yield of 11827 kg/ha when compared to Kasi bairav (10,075 kg/ha). The private hybrid yielded only 9844 kg of fruits per ha. The net return is also more from Co (Bh) Hy- 1 hybrid (Rs 53,616) compared to other hybrid.				
7.	<b>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</b>		Seed treatment /	Agronomic practices	INM	IPM	Post harvest technology
			35%	80%	75%	45%	35%
8.	<b>Final recommendation for micro level situation</b>	:	Co (Bh) Hy- 1 hybrid produced higher yield and less incidence of yellow vein mosaic disease. The hybrid is suitable for cuddalore district.				
9.	<b>Constraints identified and feedback for research</b>	:	Nil				
10.	<b>Process of farmers participation and their reaction</b>	:	The farmers have realized the performance of Co Bh (Hy)-1 bhendi by means of high yielding and low yellow vein mosaic disease				

**OFT 6: Assessment of suitable brinjal hybrid for Cuddalore district**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Brinjal	Irrigated	local varieties prone to shoot and fruit borer lack of awareness about high yielding varieties	Assessment of suitable brinjal hybrid for Cuddalore district	10	TO <sub>1</sub> .Farmers practice (local Hybrid) TO <sub>2</sub> . Arka keshav TO <sub>3</sub> .Neelima	No.of fruits/plant Single fruit weight (g) Fruit yield /ha Net return(Rs.)		Trial is under progress.			

**Contd..**

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 – Farmers’ practice -(local Hybrid)	-	Nursery raised in Jan, 2015 and transplanted in Feb. The trial is in progress. The crop is in harvesting stage.			
Technology option 2 - Arka keshav hybrid	IIHR, Bangalore				
Technology option 3 - Neelima hybrid	KAU-ARS, Manuuthy				

**OFT 7: Assessment of coco peat bioconversion techniques and its performance under protray nursery**

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trial s	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment t	Feedback from the farmer	Any refinement needed	Justificatio n for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Enterprise	Irrigated	Non availability of well matured coco peat and long duration for bioconversion of coco pith	Assessment of coco peat bioconversion techniques and its performance under protray nursery	5	TO 1 – Farmers’ practice (VRI2) TO 2 - Raw coco pith + urea + <i>Pleurotus</i> Layering method - 3 months TO 3 - Raw coco pith+ urea+ fungal consortium + enrichment with Arka microbial consortium as - Layering method (1 month )	C: N ratio Time taken to maturity Seed germination Seedling shoot and root length		The bioconverted cocopeat is ready and sowing using the cocopeat will be taken in June and July, 2015. C: N ratio is assessed from the bioconverted cocopeat.			Doesn’t Arise

Contd..

Technology Assessed	Source of Technology	C: N ratio (After conversion)	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 – Farmers’ practice (VRI2)	-	60:1			
Technology option 2 - Raw coco pith + urea + <i>Pleurotus</i> Layering method - 3 months	TNAU, Coimbatore	23:1			
Technology option 3 - Raw coco pith+ urea+ fungal consortium + enrichment with Arka microbial consortium as - Layering method (1 month )	IIHR, Bangalore	22:1			



**PART. V - FRONTLINE DEMONSTRATIONS**

**5. A. Summary of FLDs implemented during 2014-15**

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
1	Pulses	Irrigated	Rabi, 2014	Black gram	MDU-1	-	Variety demonstration	Demonstration of Blackgram MDU 1	4	4.0	-	10	10	--
2		Irrigated	Rabi, 2014	Black gram	VBN 4	-	Variety demonstration	Demonstration of post emergence herbicide for black gram	2.4	4.8	2	4	6	-
3	Cereals	Irrigated	Kurvai, 2014	Paddy	CO-51	-	Variety demonstration	Demonstration of rice CO 51	4	2.4	-	10	10	
4		Irrigated	Samba season, 2014	Paddy	TRY-3	-	Variety demonstration	Demonstration of TNAU rice TRY 3 in salt affected soils	4	4	-	10	10	-
5		Irrigated	Samba, 2014	Paddy	Anna-4	-	Crop management	Demonstration of drought management technology packages in direct sown paddy	4	4	-	10	10	-
6		Irrigated	Samba, 2014	Paddy	Anna-4	-	Seed production	Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district	4	4	-	10	10	-
7	Oil seeds	Rain fed	Late Kharif	Ground nut	JL24	-	Crop management	Demonstration of chiseling in ground nut under alfisols	4	4	2	8	10	-
8	Vegetables	Irrigated	Throughout the year	Bush type Lablab	CO (GB)14	-	Varietal demonstration	Demonstration of Bush type lablab CO (GB) 14	4	4	4	6	10	-
9		Irrigated	May-June	Turmeric	Erode local	-	Crop management	Demonstration of IDM for rhizome rot in turmeric	2	2	2	3	5	-
10	Fruit	Garden land	Jan-feb	Banana	Poovan	-	Crop management	Demonstration of high density planting method in banana	2	2	-	5	5	-
11	Others Fodder	Irrigated	Through out the year	Fodder sorghum	CO 31	-	Crop management	Demonstration of Fodder sorghum CO 31	4	4	3	7	10	-
12	Livestock	-	Throughout the year	Sugarcane tops	-	-	Nutrient management	Demonstration of enriching and ensiling of sugarcane tops for higher milk yield in cows	2	2	-	5	5	-
13	Special programme on Integrated Farming system	Wet land and dry land	NEM season	Paddy, maize, black gram & Fodder crops	Vanaraja-150 chicks Tellicherry goat-4 nos.	-	Farming system	IFS as a special programme wet land  Dry land	2 (units)  2 (units)	2 (units)	1	3	4	-

## 5. A. 1. Soil fertility status of FLDs plots during 2013-14

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
1	Pulses	Irrigated	Rabi, 2014	Black gram	MDU-1	-	Variety demonstration	Demonstration of Blackgram MDU 1	Rabi 2014	L	M	H	Paddy
2		Irrigated	Rabi, 2014	Black gram	VBN-4	-	Variety demonstration	Demonstration of post emergence herbicide for black gram	Rabi 2014	L	M	H	Paddy
3	Cereals	Irrigated	Kurvai, 2014	Paddy	CO-51	-	Variety demonstration	Demonstration of rice CO 51	Kurvai, 2014	L	L	H	Black gram
4		Irrigated	Samba season, 2014	Paddy	TRY-3	-	Variety demonstration	Demonstration of TNAU rice TRY 3 in salt affected soils	Samba season, 2014	L	M	H	Black gram
5		Irrigated	Samba, 2014	Paddy	Anna-4	-	Crop management	Demonstration of drought management technology packages in direct sown paddy	Samba, 2014	L	M	M	Black gram
6		Irrigated	Samba,2014	Paddy	Anna-4	-	Seed production	Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district	Samba,2014	L	M	H	Black gram

7	Oil seeds	Rain fed	Adi pattama	Ground nut	JL24	-	Crop management	Demonstration of chiseling in ground nut under alfisols	Adi pattam	L	M	H	Black gram
8	Vegetables	Irrigated	Throughout the year	Bush type Lablab	CO (GB)14	-	Varietal demonstration	Demonstration of Bush type lablab CO (GB) 14	Throughout the year	L	M	H	Vegetables
9		Irrigated	May-June	Turmeric	Erode local	-	Crop management	Demonstration of IDM for rhizome rot in turmeric	May-June	L	L	H	Banana
10	Fruit	Garden land	Jan-feb	Banana	Poovan	-	Crop management	Demonstration of high density planting method in banana	Jan-Feb	L	M	H	Vegetables
11	Others Fodder /	Irrigated	Throughout the year	Fodder sorghum	CO 31	-	Crop management	Demonstration of Fodder sorghum CO 31	Throughout the year	L	M	H	Maize
12	Livestock	-	Throughout the year	Sugarcane tops	-	-	Nutrient management	Demonstration of enriching and ensiling of sugarcane tops for higher milk yield in cows	Throughout the year	-	--	-	-
13	Integrated Farming system	Wet land and dry land	NEM season	Paddy, maize, black gram & Fodder crops	Vanaraja -150 chicks Tellicher ry goat-4 nos	-	Farming system	IFS as a special programme wet land Dry land	NEM season	L	M	H	Paddy

## 5.B. Results of Frontline Demonstrations

## 5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)			Check	% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)				
							Demo	H	L			A	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Pulses	Demonstration of Black gram MDU 1	MDU-1	-	Irrigated	10	2	8.40	6.80	7.60	6.25	21.60	19500	47500	28000	2.44	19500	39063	19563	2.00	
	Demonstration of post emergence herbicide for black gram	VBN-4	-	Irrigated	12	4.8	9.26	6.43	7.72	6.90	11.88	30392	60750	30358	1.99	23942	55650	27258	1.96	
Cereals	Demonstration of rice CO 51	CO-51	-	Irrigated	10	2.4	58.63	49.75	54.73	49.75	10.01	33,680	82,095	48,415	2.44	33,680	73,125	39,445	2.17	
	Demonstration of TNAU rice TRY 3 in salt affected soils	TRY-3	-	Irrigated	10	4	65.63	54.38	57.64	47.25	22.01	35,120	86,460	51,340	2.46	33,450	70,875	37,425	2.12	
	Demonstration of drought management technology packages in direct sown paddy	Anna 4	-	Rainfed	10	4 ha	46.35	38.17	40.79	37.51	8.74	36,550	81,428	44,878	2.22	37,950	77,345	39,395	2.03	

	Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district	Anna-4	-	Irrigated	10	2	44.20	46.50	43.30	36.80	17.66	35,500	58,630	42440	2.19	36,200	66240	30740	1.86
Oil seeds	Demonstration of chiseling in ground nut under alfisols	JL24	-	Rain fed	10	4	23.50	18.00	21.51	18.14	16.90	32,500	1,18,305	85,805	2.64	31,500	99,770	68,270	2.18
Vegetables	Demonstration of Bush type lablab CO (GB) 14	CO (Gb)14	-	Irrigated	24	4	88.90	68.40	74.50	52.10	42.99	28,000	145820	117820	5.20	25460	81452	55992	3.19
Spices and Condiments	Demonstration of IDM for rhizome rot management in turmeric	Erode local	--	Irrigated	5	2.5 ha	87.88	81.45	85.62	75.50	13.40	41750	1,85886	154136	4.45	30,152	1,66,052	125900	4.13
	Demonstration of high density planting in banana	Poovan	--	Irrigated	5	2.5 ha	472.5	412.7	452.0	348.0	29.89	58,750	1,95306	1,36556	3.32	56,745	15,3462	1,47817	2.70
Others Fodder	Demonstration of Fodder sorghum CO 31	Co 31	-	Irrigated	10	4	1475 tonne	1152 tonne	1323 tonne	-	-	25,000	1,12000	77000	4.1	1.The farmer cultivated only sorghum CO 31 and used for fodder purpose 2. The farmers have used their own paddy straw available nearby place. So check value is not calculated			

Livestock	Demonstration of enriching and ensiling of sugarcane tops for higher milk yield in cows	-	-	-	5	2	14	9	12	10	16	15,120	40,520	25400	2.67	16,000	36,000	20,000	2.25
Poultry	Demonstration of Nandhanam II Turkey	Nandhanam II turkey	--	--	The demonstration withheld due to budget constraint.														
Special programme on Integrated Farming system	IFS as a special programme - Wet land	Vanaraja -150 chicks	-	Wet land	2	2 (units)	61.20	50.50	55.85	48.30	15.63	1,21,448	42,0153	298,705	3.45	78,520	2,84,560	2,06,040	3.62
		Tellicherry goat-4 nos	-	Dry land	2	2 (units)	5.6	4.5	5.05	4.2	20.4	24,270	56,160	32,090	2.31	1,12,50	20,157	89,07	1.79
FLD conducted during 2013-14	Demonstration of Arka meghana chilli hybrid in cuddalore district	Arka meghana chilli seed		Irrigated	10	2	302	275	282.00	324.00	-12.96	42450	145280	102830	3.42	42754	167852	125098	3.92

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

H – Highest Yield, L – Lowest Yield A – Average Yield

### 1. A. Integrated Farming System - Wet land situation – 2014-15

Crop	Name of the technology demonstrated	Farming situation	Components included	No. of Demo.	Area (ha)	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Farming system	Integrated Farming System	Wet land	Crop ,Fish, poultry	2	3	1,21,448	4,20,153	<b>2,98,705</b>	3.45	78,520	2,84,560	2,06,040	3.62

#### Data on additional parameters other than yield (*viz.*, reduction of percentage in weed/pest/ diseases *etc.*)

Data on other parameters in relation to technology demonstrated				Check		
Parameter with unit	Total cost	Gross return	Net return	Total cost	Gross return	Net return
Crop(Rice-rice)	81,245	3,12,450	2,31,205	78,520	2,84,560	2,06,040
Fish	37,003	85,753	48,750	-	-	-
Chicks	3200	21,950	18,750	-	-	-

#### Comparison of conventional cropping system and integrated cropping system

Components	Cost of cultivation	Gross return	Net return	B:C ratio	Employment generation (man days/year)
Conventional cropping	78,520	2,84,560	2,06,040	1:32	785
IFS	1,21,448	4,20,153	2,98,705	1:35	912
Additional advantage of IFS over conventional cropping	- 86188 (additional expenditure)	135593	92665	-	127 man days

**1.B. Integrated Farming System - Dry land situation – 2014-15**

Crop	Name of the technology demonstrated	Farming situation	Components included	No. of Demo.	Area (ha)	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Farming system	Integrated Farming System	Dry land	Crop, fodder and goat	2	2	24,270	56,160	32,090	<b>2.31</b>	11,250	20,157	8907	1:1.79

**Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/ diseases etc.)**

Data on other parameters in relation to technology demonstrated				Check		
Parameter with unit	Total cost	Gross return	Net return	Total cost	Gross return	Net return
Crop (Food)	7245	19,090	11,845	11,250	20,157	8907
Crop (Fodder)	4275	9520	5245	-	-	-
Goat	12,750	27,550	15,000	-	-	-

**Comparison of conventional cropping system and integrated cropping system**

Components	Cost of cultivation	Gross return	Net return	B:C ratio	Employment generation (man days /year)
Conventional cropping	11,250	20,157	8907	1:1.79	96
IFS	24,270	56,160	32090	1:2.31	365
Additional advantage of IFS over conventional cropping	13,020	3600	23183	-	269



**Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/ diseases etc.)**

<b>Data on other parameters in relation to technology demonstrated</b>		
<b>Parameter with unit</b>	<b>Demo</b>	<b>Check</b>
<b>FLD 1. Demonstration of Black gram MDU 1</b>		
No.of pods/plant	30	26
No.of seeds /pod	7.4	6.2
<b>FLD 2. Demonstration of post emergence herbicide for black gram</b>		
No.of pods/plant	22.2	18.4
100 seed weight	82	75
<b>FLD 3. Demonstration of rice CO 51</b>		
No.of productive tillers /hill	22.5	20.0
No.of grains/panicle	184.5	165
<b>FLD 4. Demonstration of TNAU rice TRY 3 in salt affected soils</b>		
No.of productive tillers /hill	25.7	21.2
No.of grains/panicle	139.9	118.5
<b>FLD. 5. Demonstration of drought management technology packages in direct sown paddy</b>		
No.of productive tillers /hill	17	11
No.of grains/ panicle	198	174
<b>FLD 6. Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district</b>		
No.of productive tillers /hill	16	10
No.of grains/panicle	205	187
<b>FLD 7. Demonstration of chiseling in ground nut under alfisols</b>		
No. of pods/plant	15	12
100 seed weight	38	35
<b>FLD 8. Demonstration of Bush type lablab CO (Gb) 14</b>		
No.of pods/plant	18	12
<b>FLD 9. Demonstration of IDM for rhizome rot in turmeric</b>		
Rhizome rot incidence	4.10	19.15
No.Of Fingers /Plant	8.75	6.05
<b>FLD 10. Demonstration of high density planting method in banana</b>		
No. of hands /bunch	15.45	13.75
No. of fingers/bunch	262	240
<b>FLD 12 Demonstration of enriching and ensiling of sugarcane tops for higher milk yield in cows</b>		
Palatability	Palatability is good	Not palatable
Intake /day	2.3 kg/day	1.5 kg/day
<b>FLD 13 Demonstration of Fodder sorghum CO 31</b>		
No.of tillers/plant	17	15
No.of leaves /plant	108	100

5.B.2. Livestock and related enterprises : Nil

5.B.3. Fisheries : Nil

5.B.4. Other enterprises : Nil

5.B.5. Farm implements and machinery : Nil

**5.B.6. Extension and Training activities under FLD**

Sl.No.	Activity	No. of activities organized	Number of participants	Remarks
1	Field days	5	250	-
2	Farmers Training	20	4724	-
3	Media coverage (Radio programme)	9	Entire district	-
4	Training for extension functionaries	2	120	-
5	Others (Please specify)			-
	a. Extension literatures prepared and distributed	10	100	
	b. News paper coverage	37	Entire district	

**PART VI – DEMONSTRATIONS ON CROP HYBRIDS**

**Demonstration details on crop hybrids: Demonstration of Arka meghana chilli hybrid in cuddalore district (FLD conducted during 2013-14)**

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
				Demonstration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Chilli	Arka meghana	10	2.5	282.0	324.0	-12.96	42450	145280	102830	3.42
<b>Others (Specify)</b>										

H-High L-Low, A-Average

\*Please ensure that the name of the hybrid is correct pertaining to the crop specified



Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient use efficiency	-	-	-	-	-	-	-	-	-	-
Soil and water testing	-	-	-	-	-	-	-	-	-	-

<b>Livestock Production and Management</b>										
Poultry Management	-	-	-	-	-	-	-	-	-	-
Feed and Fodder technology	-	-	-	-	-	-	-	-	-	-
<b>Home Science/Women empowerment</b>										
Value addition	4	64	19	83	16	2	18	80	21	101
Location specific drudgery production	-	-	-	-	-	-	-	-	-	-
<b>Agril. Engineering</b>										
Farm machinery and its maintenance	1	14	13	27	-	-	-	14	13	27
<b>Integrated Pest Management</b>										
Integrated Pest Management	5	121	25	146	50	29	79	171	54	225
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
<b>Fisheries</b>										
Integrated fish farming	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
<b>Production of Inputs at site</b>										
Seed Production	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Mushroom production	-	-	-	-	-	-	-	-	-	-
Others	5	223	21	134	23	1	16	246	22	268
<b>Total</b>	<b>21</b>	<b>569</b>	<b>101</b>	<b>560</b>	<b>111</b>	<b>39</b>	<b>142</b>	<b>683</b>	<b>137</b>	<b>820</b>



Balanced use of fertilizers	-	-	-	-	-	-	-	-	-	-
Soil and water testing	-	-	-	-	-	-	-	-	-	-
Dairy Management	-	-	-	-	-	-	-	-	-	-
Poultry Management	-	-	-	-	-	-	-	-	-	-
Animal Nutrition Management	-	-	-	-	-	-	-	-	-	-
Household food security by kitchen gardening and nutrition gardening	-	-	-	-	-	-	-	-	-	-
Value addition	5	72	14	86	48	19	67	120	33	153
Location specific drudgery production	-	-	-	-	-	-	-	-	-	-
Farm machinery and its maintenance	-	-	-	-	-	-	-	-	-	-
Installation and maintenance of micro irrigation systems	-	-	-	-	-	-	-	-	-	-
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	1	35	12	47	21	7	28	56	19	75
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
<b>Fisheries</b>										
Integrated fish farming	-	-	-	-	-	-	-	-	-	-
Seed Production	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Mushroom production	-	-	-	-	-	-	-	-	-	-
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	-	-	-	-	-	-	-	-	-	-
<b>Others</b>	1	18	7	25	-	-	-	18	7	25
<b>Total</b>	<b>9</b>	<b>465</b>	<b>148</b>	<b>613</b>	<b>182</b>	<b>86</b>	<b>268</b>	<b>647</b>	<b>234</b>	<b>881</b>

**7.C. Training for Rural Youths including sponsored training programmes (on campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	-	-	-	-	-	-	-	-	-	-
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-
Integrated farming	1	17	12	29	-	-	-	17	12	29
Seed production	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Vermi-culture	-	-	-	-	-	-	-	-	-	-
Mushroom Production	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	1	14	3	17	-	-	-	14	3	17
Value addition	1	18	9	27	2	4	6	20	13	33
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>3</b>	<b>49</b>	<b>24</b>	<b>73</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>51</b>	<b>28</b>	<b>79</b>

**7.D. Training for Rural Youths including sponsored training programmes (off campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	1	20	-	20	8	-	8	28	-	28
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-
Integrated farming	-	-	-	-	-	-	-	-	-	-
Seed production	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Mushroom Production	-	-	-	-	-	-	-	-	-	-
Value addition	5	62	70	132	9	12	21	71	82	153

Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>6</b>	<b>82</b>	<b>70</b>	<b>152</b>	<b>17</b>	<b>12</b>	<b>29</b>	<b>99</b>	<b>82</b>	<b>181</b>

#### 7.E. Training programmes for Extension Personnel including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	1	10	2	12	8	4	12	18	6	24
Integrated Pest Management	2	20	4	24	7	4	11	27	8	35
Integrated Nutrient management	1	18	1	19	2	4	6	20	5	25
Protected cultivation technology	1	-	12	12	7	3	10	7	15	22
Production and use of organic inputs	1	8	6	14	8	1	9	16	7	23
Care and maintenance of farm machinery and implements	1	11	6	17	2	5	7	13	11	24
Information networking among farmers										
<b>Total</b>	<b>7</b>	<b>67</b>	<b>31</b>	<b>98</b>	<b>34</b>	<b>21</b>	<b>55</b>	<b>101</b>	<b>52</b>	<b>153</b>

#### 7.F. Training programmes for Extension Personnel including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	1	44	12	56	22	11	33	66	23	89
Integrated Pest Management	2	63	14	77	16	14	30	79	28	107
Integrated Nutrient management	1	35	9	44	14	9	23	49	18	67
Protected cultivation technology	2	41	19	60	20	16	26	61	35	96
Care and maintenance of farm machinery and implements	2	74	16	90	21	-	21	95	16	111
Management in farm animals	1	23	4	27	3	29	32	26	33	59
<b>Total</b>	<b>9</b>	<b>280</b>	<b>74</b>	<b>354</b>	<b>96</b>	<b>79</b>	<b>165</b>	<b>376</b>	<b>153</b>	<b>529</b>



### 7.G. Sponsored training programmes conducted

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>1</b>	<b>Crop production and management</b>										
1.a.	<b>Others (pl. specify)</b>	1	250	150	400	145	55	200	395	205	600
	IPM in vegetables	1	65	10	75	18	7	25	83	17	100
	PPVR&RI	1	45	15	60	27	13	40	72	28	100
	PPVR&RI	1	75	8	83	10	7	17	85	15	100
	ATMA	5	324	173	497	168	85	253	492	258	750
	NABARD	2	101	43	144	86	44	130	187	87	274
<b>3</b>	<b>Agricultural Extension</b>										
3.a.	Others	2	82	37	119	74	33	107	156	70	226
	<b>Total</b>	<b>13</b>	<b>942</b>	<b>436</b>	<b>1378</b>	<b>528</b>	<b>244</b>	<b>772</b>	<b>1470</b>	<b>680</b>	<b>2150</b>

#### Details of sponsoring agencies involved

1. NADP-SSI
2. PPVR&RI,-Government of India
3. Market led extension activity, GOI scheme
4. Awareness program on IPM in Vegetables sponsored by Collaborative Research support program for IPM under International development aid by United States and Dept.of Plant Molecular Biology, TNAU, Coimbatore.

**7.H. Details of Vocational Training Programmes carried out by KVKs for rural youth**

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>1</b>	<b>Crop production and management</b>										
1.a.	Integrated crop management(IFS)	1	26	2	28	5	0	5	31	2	33
1.b.	Organic farming	1	41	7	48	12	5	15	53	12	65
<b>2</b>											
2.a.	Value addition	1	8	15	23	3	14	17	11	29	40
<b>3.</b>											
3.a.	Vermi-composting	-	-	-	-	-	-	-	-	-	-
3.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-
3.c.	Mushroom cultivation	1	10	2	12	4	4	8	14	8	20
3.d.	Nursery, grafting etc.	1	14	4	18	8	7	15	22	11	33
	<b>Grand Total</b>	<b>5</b>	<b>99</b>	<b>30</b>	<b>129</b>	<b>32</b>	<b>30</b>	<b>60</b>	<b>131</b>	<b>62</b>	<b>191</b>

**PART VIII – EXTENSION ACTIVITIES****Extension Programmes (including extension activities undertaken in FLD programmes)**

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	10	198	52	250	40	5	45	11	4	15
Kisan Mela	1	350	12	362	42	8	50	8	7	12
Exhibition	2	412	38	450	50	13	63	15	5	20
Film Show	10	104	44	150	38	4	42	6	6	12
Method Demonstrations	15	183	27	210	27	7	34	8	7	15
Farmers Seminar	3	60	25	85	10	4	14	2	1	3
Workshop	4	55	25	75	12	6	18	7	-	7
Group meetings	11	124	26	150	22	3	25	9	7	16
Lectures delivered as resource persons	15	286	164	450	22	13	35	12	9	21
Newspaper coverage	37	-	-	-	-	-	-	-	-	-
Radio talks	09	-	-	-	-	-	-	-	-	-
TV talks	-	-	-	-	-	-	-	-	-	-
Popular articles	-	-	-	-	-	-	-	-	-	-
Extension Literature	10	-	-	-	-	-	-	-	-	-
Advisory Services	500	321	104	425	51	24	75	15	10	25

Scientific visit to farmers field	25	104	21	125	34	18	52	5	5	10
Farmers visit to KVK	20	330	170	500	80	44	124	10	8	18
Diagnostic visits	12	84	6	90	22	10	32	5	2	15
Exposure visits	6	450	100	550	41	9	50	-	-	-
Soil health Camp	1	30	3	33	7	-	7	-	-	-
Animal Health Camp	2	50	12	62	5	4	9	-	-	-
Soil test campaigns	5	33	17	50	32	10	42	20	4	24
Farm Science Club Conveners meet	-	-	-	-	-	-	-	-	-	-
Self Help Group Conveners meetings	2	30	11	41	8	7	15	-	-	-
Celebration of important days (specify)	4	-	-	-	-	-	-	-	-	-
World Environmental day (05.06.14)	1	13	3	16	4	3	7	2	-	2
Independence day(15.08.14)	1	6	4	10	3	2	5	0	0	0
Republic day(26.01.15)	1	7	3	10	2	3	5	0	0	0
Women's day(08.03.15)	1	2	6	8	1	1	2	0	0	0
<b>Total</b>	<b>704</b>	<b>3232</b>	<b>873</b>	<b>4102</b>	<b>553</b>	<b>198</b>	<b>751</b>	<b>135</b>	<b>75</b>	<b>215</b>

### PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

#### 9.A. Production of seeds by the KVKs: Nil

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (g)	Value (Rs)	Number of farmers
-	-	-	-	-	-
<b>Total</b>					-

#### 9.B. Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Number	Value (Rs.)	Number of farmers
Fruits	Cashew grafts	VRI 3	9803	235272	300
	Jack grafts	PLR 1	50	2500	25
Ornamental plants	Insulin and Aloe vera	-	56	1120	10
Medicinal and Aromatic	Medicinal Plants	-	1350	27000	300
<b>Total</b>			<b>11259</b>	<b>265892</b>	<b>635</b>

#### 9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
	Vermicompost	1090	10	6540
<b>Total</b>	Vermicompost	<b>1090</b>	<b>10</b>	<b>6540</b>

**9.D. Production of livestock materials**

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
<b>Dairy animals</b>				
Others (Pl. specify) Goat	Telicherry goat	4	25300	2
<b>Total</b>		<b>4</b>	<b>25300</b>	<b>2</b>

**PART X – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND DROUGHT MITIGATION**

**10. A. Literature Developed/Published (with full title, author & reference)****(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.))**

KVK News letter : YERKALAM  
 Date of start : April, 2005  
 Periodicity : Quarterly (Jan.-Mar., Apr. –Jun., Jul.-Sep. and Oct.-Dec.)  
 No. of copies distributed: 1200

**(B) Literature developed/published**

Item	Title	Authors name	Number
<b>Research papers (Full papers)</b>	Standardization of vigour test for measuring the vigour status of mustard genotypes-Research journal of seed science.	V.Vijayageetha,P.Balamurugan and M.Bhaskaran, 2014,7(3)	-
	Standardization of Polymer seed film coating technique- Inter.Journal of Emerging Technologies In Computational and Applied Sciences.	V.Vijayageetha,P.Balamurugan and M.Bhaskaran, 2014,8(6)	-
	Maximising red gram yield through integrated agronomic management practices under alkali soil- Research Journal of Forestry and Agricultural Sciences.	K.Venkatalakshmi,2014,2(3)	-
<b>Research papers (Abstracts)</b>	Surfactant producing PGPR for management of rhizome rot of ginger and Turmeric – Symposium on Challenges and management approaches for crop diseases of national importance –status and prospects	Sarvanan,T., T.Meganathan and K.Nageswari,2015	-
	Fungicides and time of application for management of leaf rust disease in coffee.- Symposium on Challenges and management approaches for crop diseases of national importance –status and prospects	Sarvanan,T and R.Arulmozhiyan,2015	-
		Scientists of this KVK	5
<b>Technical reports</b>	Annual Action plan 2015-16	Scientists of this KVK	6
	19 <sup>th</sup> SAC report	Malarkodi, M and R.Arunachalam	3
	NADP – PF training report	K.Venkatalakshmi and R.Arunachalam	2
	EEC report	Malarkodi, M	
	PPV & FR report	Scientists of this KVK	5
<b>News letters</b>	Yerkalam (4 issues)	Scientists of this KVK	6
<b>Technical bulletins</b>	-	-	-
Popular articles	Control of rat in Paddy field- Dinamalar 13.12.2014	Professor and Head, KVK	-


	Cashew mosquito bug control measures-Dinamalar-28.12.2014	Professor and Head,KVK	-
	Control of plant hoppers in paddy-Dinamalar-13.12.14	Professor and Head,KVK	-
	Mushroom cultivation practices –Dinamalar-14.11.14	Sarvanan,T,	-
<b>Extension literature</b>			
<b>Booklet</b>			100
	Tree cultivation	M.Malarkodi ,V.Vijayageetha, T.Sarvanan S.Kannan, K.Venkatalakshmi,S.Jeeva and R.Arunachalam	100
	Production and use of organic inputs in agriculture	M.Malarkodi, V.Vijayageetha, T.Sarvanan S.Kannan, K.Venkatalakshmi,S.Jeeva and R.Arunachalam	50
	Protection of plant varieties and Farmers right act	V.Vijayageetha, M.Malarkodi, T.Sarvanan S.Kannan, K.Venkatalakshmi,S.Jeeva and R.Arunachalam	100
	Kurvai and samba paddy	V.Vijayageetha ,K.Venkatalakshmi,T.Sarvanan,M.Malarkodi and R.Arunachalam	50
	Quality seedling and production technologies in vegetables	V.Vijayageetha, T.Sarvanan, M.Malarkodi,S.Kannan, K.Venkatalakshmi,S.Jeeva and R.Arunachalam	100
	Market related information	V.Vijayageetha, T.Sarvanan, M.Malarkodi,S.Kannan, K.Venkatalakshmi,S.Jeeva and R.Arunachalam	50
	Integrated farming system	K.Venkatalakshmi, M.Malarkodi, V.Vijayageetha, T.Sarvanan, S.Kannan,	200
	Coconut cultivation and Marketing	K.Venkatalakshmi, M.Malarkodi, V.Vijayageetha, T.Sarvanan, S.Kannan	100
	Black gram and ground nut cultivation technique	K.Venkatalakshmi, M.Malarkodi, V.Vijayageetha, T.Sarvanan, S.Kannan	50
	Value added products from mango fruit	S.Kannan,V.Vijayageetha ,K.Venkatalakshmi,T.Sarvanan,M.Malarkodi and R.Arunachalam	
	Value added products from cashew apple	S.Kannan ,V.Vijayageetha ,K.Venkatalakshmi,T.Sarvanan,M.Malarkodi and R.Arunachalam	
	Preparation of value added products and its marketing techniques of fruits and vegetables	S.Kannan ,V.Vijayageetha ,K.Venkatalakshmi,T.Sarvanan,M.Malarkodi and R.Arunachalam	
	Value addition in minor millets	S.Kannan ,V.Vijayageetha ,K.Venkatalakshmi,T.Sarvanan,M.Malarkodi and R.Arunachalam	
<b>Folder/leaflets</b>	SSI and their benefits in sugarcane	K.Venkatalakshmi and R.Arunachalam	500
	Mushroom production	T.Sarvanan and R.Arunachalam	500
	Methods of soil and water sample collection	Malarkodi, M and R.Arunachalam	1000
<b>Others (Pl. specify)</b>	-	-	
<b>TOTAL</b>	<b>40</b>	<b>-</b>	<b>4466</b>

### 10.B. Details of Electronic Media Produced

Item	Title	Authors name	Number
CD	Protection of plant varieties and Farmers right act.	KVK,Vridhachalam	100
CD/DVD	KVK activities and achievements	KVK,Vridhachalam	-

### 10. C. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).

This KVK has developed ten successful entrepreneurs on seed production/ nursery technologies/ food processing/ flower arrangements. Brief outlines of their success story are presented here under.

Success story 1	<b>SEED PRODUCER (RAM MAHESH)</b>	
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<b>Name of the Farmer</b>	:	Thiru. S.Ram Mahesh
<b>Address for the communication with pin code</b>	:	S/o. Sambanthamoorthy Vallam ,Thatchakadu B.Muttalur, ChidambaramT.K.
<b>Contact Phone number</b>	:	98844 01114
<b>Area of the Farm and water source</b>	:	He owns an area of 20 ha of rain fed land.
<b>Technologies adopted</b>	:	<ul style="list-style-type: none"> <li>• He adopted improved Production Technologies for Rainfed Rice-ANNA 4.</li> <li>• He had followed all agronomic and plant protection practices for the paddy crop.</li> <li>• PPFM spray to mitigate drought</li> </ul>
<b>Impact due to Technological interventions</b>	:	<ul style="list-style-type: none"> <li>• In samba season, he cultivated ANNA 4 rice variety (under OFT) and achieved a good yield of 5880 kg/ha even though the entire Cauvery delta zone suffered out of severe water scarcity during this samba season.</li> <li>• The farmers have realized a increase of 23.81% yield over ruling Kar variety. The net return from the ANNA 4 variety given Rs 11485 per ha than of Rs 7557/- from Kar rice variety.</li> <li>• He won state level Best farmer award from TNAU during February, 2013.</li> </ul>
<b>Lessons learnt</b>	:	<ul style="list-style-type: none"> <li>• The Cuddalore district has considerable area under rainfed rice especially at Nallur, Mangalore blocks and also part</li> </ul>

of Bhuvanagiri and Vriddhchalam block during samba season. Generally, the farmers get very low yield mainly under rainfed situation owing to local varieties and poor maintenance. The locally available kar (Red) rice variety fetches low market value.

- Cultivation of ANNA -4 proved excellent yield performance in his field (5880 kg/ha) even though the entire Cauvery delta zone suffered out of severe water scarcity during this samba season.

**Details of spreading success to other farmers or farmers groups**


: Out of his yield, 2500 kgs of seed was procured from him as TFL seed with the approval of TNAU and distributed to the other farmers of Cuddalore district for further spread.



**Field assessment by the DEE and KVK scientists**



**Mr. Ram Magesh receiving Best Farmer award from TN Agri Minister on 28.02.2013**

Success story 2	<b>SEED PRODUCER (SHIVASHAKTHI SEEDS)</b>	
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- Name of the Farmer** : Th. A. Ramesh
- Address for the communication with pin code** : S/o Adivaragan pillai  
Main road, Gunamangalam & Post  
Srimushnam 608703
- Contact Phone number** : 9942515469
- Area of the Farm and water resourced** : 15 acres with bore well
- Technologies adopted** :
  - Improved seed production technologies viz., such as land selection, sources of seed, isolation distance, rouging, foliar nutrition, harvesting and post harvest handling of seeds in three stages under seed village training programme.
- Impact due to Technological interventions** :
  - Before 2007 he was an ordinary farmer cultivating paddy in his own land and surviving with average minimum income which was sufficient to meet out his family daily needs.
  - Now he is running seed production unit successfully with the capacity of 55t of ADT 43, 90t of CR1009, 15t of ADT38 35 t of BPT5204, 7t of ADT 39 and 3t of IW Ponni as his contribution to the farmers of Cuddalore District
  - He is earning approximately Rs. 3 lakhs /annum and generating employment of 192 man days per year.
- Lessons learnt** :
  - The seed production is a successful venture for farmers as it gives remuneration income to the farmer.
  - The need for good quality seed material is growing day by day and hence there is a great scope for a profitable agribusiness in seed venture.
- Details of spreading success to other farmers or farmers groups** : The farmers of Gunamangalam village are being trained by the Th. A. Ramesh.




The Vice-Chancellor, TNAU, and the ZPD interacting with the entrepreneur at this KVK



Seed processing unit of the entrepreneur Mr.A.Ramesh



Success story 3	<b>SEED PRODUCER (RAJA SEEDS)</b>	
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<b>Name of the Farmer</b>	:	Th. T. Subramaniam
<b>Address for the communication with pin code</b>	:	S/o Thirugnanasambantham North street, Rajendrapattinam-608703
<b>Contact Phone number</b>	:	
<b>Area of the farm and water source</b>	:	35 acres of wet land with good irrigation sources.
<b>Technologies adopted</b>	:	Krishi Vigyan Kendra intervened and trained the farmers of Rajendrapattinam about the production of quality seeds under seed village training programme
<b>Impact due to Technological interventions</b>	:	<ul style="list-style-type: none"> <li>• He is producing 12 ha of paddy seeds and 12 ha of blackgram seeds and supplying the same to the farmers and to the department of agriculture.</li> </ul>
<b>Lessons learnt</b>	:	<ul style="list-style-type: none"> <li>• Before the Training programme the farmer purchased the seeds from private seed companies, government outlets and also used their own farm saved seeds.</li> <li>• After the training undergone by the farmer he himself produced the quality seeds and supplying it to the farmers in and around Cuddalore district and now he become an entrepreneur.</li> <li>• The profit achieved of this entrepreneur showed that the seed production is a profitable agribusiness venture and the scope is enlarging day by day as there is growing demand for quality seed material in the agricultural industry.</li> </ul>
<b>Details of spreading success to other farmers or farmers groups</b>	:	The farmers of the Rajendra pattinam trained from Th. T. Subramaniam and they are also producing certified seeds.



**Mr. Raja, the seed producer at his sale outlet**



**Certified seed packs of Raja Seeds**

Success story 4	<b>NURSERY GARDEN (AMMAN NURSERY)</b>	
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<b>Name of the Farmer</b>	:	S.VIJAYALAKSHMI
<b>Address for the communication with pin code</b>	:	M/s.Amman nursery , Cuddalore Main Road, V.Sathamangalam, Vridhachalam t.k.
<b>Contact Phone number</b>	:	98652 45007
<b>Area of the Farm and water source</b>	:	1 ha. with bore well.
<b>Technologies adopted</b>	:	<ul style="list-style-type: none"> <li>• Cashew seedlings were raised under soft wood grafting method under shade net.</li> <li>• Jack seedlings were also raised by grafting technology by the Amman nursery.</li> </ul>
<b>Impact due to Technological interventions</b>	:	<ul style="list-style-type: none"> <li>• A total no.of 2,10,000 Cashew seedlings were sold in the year of 2012 with a high viability rate (more than 95 %).</li> <li>• Earned a profit of 30,000/- per month.</li> </ul>
<b>Lessons learnt</b>	:	<ul style="list-style-type: none"> <li>• Seedlings recovery rate is higher in this grafting technology when compared to conventional method.</li> <li>• Seedling production is also a very good commercial venture for the farmers,rural youth and farm women to get a remunerative monthly income.</li> </ul>
<b>Details of spreading success to other farmers or farmers groups</b>	:	This nursery is approved by the directorate of cashew and cocoa Development board, Cochin. So more numbers of farmers visited this nursery and learnt the technology.



**Amman Nursery name board**



**Mr.Sivakumar Explaining his client**

Success story 5	NURSERY GARDEN (SARADHAMBAL NURSERY)	
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- Name of the Farmer** : Thiru. R.Muthukumaran
- Address for the communication with pin code** : Sarathambal nursery,  
361, Kullanchavadi salai,  
Vegakollai and Post, Panrutti taluk,  
Cuddalore district.
- Contact Phone number** : 97904 15127
- Area of the Farm and water source** :
  - Total area is 12 acres with assured irrigation source.
  - One acre is being used for nursery.
  - Among the total area, 5 acres have been planted with cashew, 2 acres with jack and remaining 3 acres has been utilized for crossandra cultivation and one acre for jasmine in which the mother plant stock materials are collected for making cuttings
- Technologies adopted** :
  - Nursery production technologies-Grafting technique.
  - Mist chamber construction,
  - Use of growth regulators and
  - Nursery mixture preparation.
- Impact due to Technological interventions** :
  - At present in and around Vegakollai village there are 20 nurseries and the production capacity is 3-5 lakhs per unit with initial cost of Rs.50,000.
  - On an average 15-20 lakh plants has been produced every year from crossandra nurseries in Vegakollai village.
- Lessons learnt** :
  - The nursery unit is providing employment to the rural youth for 750-800 man days per unit per year.
  - Seedling production is also a very good commercial venture for the farmers,rural youth and farm women to get a remunerative monthly income
- Details of spreading success to other farmers or farmers groups** :
  - He generated rural employment to about 50 people in vegakollai.
  - Nursery garden is profitable agribusiness and it provides employment oppurtunities to rural youth and farm women.
  - The advent of hi tech methods will further boost up the production of quality seedling and higher returns.



Workers active in preparation of pot mixture



Workers active in seedling preparation

Success story 6	NURSERY GARDEN (SRI MURUGAN NURSERY)	
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<b>Name of the Farmer</b>	:	A.Dhanavel
<b>Address for the communication with pin code</b>	:	Sri Murugan Nursery Cuddalore road, Pudukuraipettai Kuppanathum, Vridhachalam t.k.
<b>Contact Phone number</b>	:	98651 97550
<b>Area of the Farm</b>	:	1 acre
<b>Technologies adopted</b>	:	<ul style="list-style-type: none"> <li>• Raising of seedlings viz., Cashew,Jack,Mango,Guava,</li> <li>• Sapota,Lemon,Amla, and other Ornamental plants</li> <li>• soft wood grafting method</li> <li>• .Shade net method</li> </ul>
<b>Impact due to Technological interventions</b>	:	<ul style="list-style-type: none"> <li>• 3000 no.of seedling are being sold/month</li> <li>• Approximately Rs.15,000/month as profit.</li> </ul>
<b>Lessons learnt</b>	:	<ul style="list-style-type: none"> <li>• Viability of seedlings is more than the conventional planting.</li> <li>• Quality and true types of seedlings were produced under soft wood grafting.</li> <li>• Even growth is achieved.</li> </ul>
<b>Details of spreading success to other farmers or farmers groups</b>	:	Rasi Nursey, Amman nursery and velkkani nursery were started after getting training from Murgan nursey.



Nursery Board



Our SMS with the entrepreneur

Success story 7	<b>JEYAM HOME MADE PRODUCTS</b>	
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<b>Name of the Farmer</b>	: R.Suganthi and K.Seetha lakshmi
<b>Address for the communication with pin code</b>	: M/s. Jeyam home made products, 101 ,Thangam Nagar, Gandhi nagar post, Vadakuthu, Kurinjipadi T.K.
<b>Contact Phone number</b>	: Cell: 94860 89781
<b>Area of the farm</b>	: 1200 sq.ft
<b>Technologies adopted</b>	: <ul style="list-style-type: none"> <li>• Value added products in fruits, vegetables, pulses, cereals and millets.</li> <li>• Pickle preparation ready mix powder</li> <li>• Health food</li> <li>• Improved packaging and marketing.</li> </ul>
<b>Impact due to Technological interventions</b>	: <ul style="list-style-type: none"> <li>• Sale of pickles/month:3000 bottles</li> <li>• Instant powder/month:200 kgs</li> <li>• Approximate profit/month :Rs.30,000/-</li> </ul>
<b>Lessons learnt</b>	: Value added products gain more market value than raw products.
<b>Details of spreading success to other farmers or farmers groups</b>	: More no. of self help groups visited and learnt the technology from them .



Vice Chancellor, TNAU visiting the Stall of Mrs. Suganthi ( Jeyam Food Products)



Mrs. N. Suganthi receiving “Velanmai Chemmal” award during the farmers day celebration on 11.01.14 at TNAU

Success story 8	AERO FOODS	
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<b>Name of the Farmer</b>	:	Mr.Manimozhi
<b>Address for the communication with pin code</b>	:	M/s.Aero Foods, 144/1 Annasai, Periyar Nagar Vridhachalam, Cuddalore Tk.
<b>Contact Phone number</b>	:	94435 11316
<b>Area of the company</b>	:	800-900 sq.ft
<b>Technologies adopted</b>	:	<ul style="list-style-type: none"> <li>• Prepared milletsbased value added products (Varagu,Samai,Theni, Ragi).</li> <li>• Prepared millet based Health mix</li> </ul>
<b>Impact due to Technological interventions</b>	:	<ul style="list-style-type: none"> <li>• 1.5 tonnes of processed millets are being sold every month</li> <li>• 400-500 kgs of millet based health mix powder are being sold every month</li> <li>• Earning an approximate profit of Rs.20,000/month</li> </ul>
<b>Lessons learnt</b>	:	<ul style="list-style-type: none"> <li>• Processed millets fetch more price than raw products.</li> <li>• Diabetic patient prefers millet based product rather than cereal based product and hence more market value.</li> </ul>
<b>Details of spreading success to other farmers or farmers groups</b>	:	More no. of farmers were attracted towards this company and become member of this society.



**AERO Foods –Production Unit**



**Display of Food products – AERO Foods Team**

Success story 9	PETALZ BOUQUET SHOP	
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- Name of the Farmer** : Mrs. R. Umaraju
- Address for the communication with pin code** : W/o Rajasekar  
42, Ranganathan Street, Pathirikuppam Post,  
Arisiperiyankuppam Via, Cuddalore -607002
- Contact Phone number** : 99651 21620
- Area of the shop** : Petals shop with a area of 700 sq.ft.
- Technologies adopted** :
- Florist - Flower Bouquet arrangement
  - Floral stage decoration on commercial basis
  - Dry flower preparation and arrangement
- Impact due to Technological interventions** :
- Effectively utilized flower raw materials available in the area.
  - One of the income generation activities for the farm woman, rural youth and earned Rs 40,000 per month.
- Lessons learnt** :
- Flower Bouquet arrangement is a very good commercial venture for the women and youth to get a remunerative monthly income.
- Details of spreading success to other farmers or farmers groups** :
- .Mr. R. Kovathanan of Mangalampettai has specialized in floral stage decorations and he has completed more than 300 floral stage decorations in and around Namakkal, Trichy, Villupuram, Neyveli and Vridhachalam ranging from Rs 6000 to Rs One lakh per decoration.
  - Further Mr. K. Sakthivel of Chidambaram has been selling flower bouquet and basket bouquet during his leisure time from home on order basis
  - Mrs.Punithavathi from Bhuvanagiri also doing dry flower business on new basis.



**Vocational Training on Flower arrangements**



**Vice Chancellor, TNAU visiting the Stall of Mrs. Umaraju. (Petalz Bouquet Shop)**

Success story 10	<b>VERMICOMPOST PRODUCTION</b>	
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<b>Name of the Farmer</b>	:	Mr.V.Sekar
<b>Address for the communication with pin code</b>	:	S/o.Velmurugan Kodukkur village Vridhachalam tk-606001
<b>Contact Phone number</b>	:	97863 46901
<b>Area of the farm</b>	:	3000 sq.ft with bore well
<b>Technologies adopted</b>	:	Vermi composting technologies-by utilizing agricultural waste
<b>Impact due to Technological interventions</b>	:	<ul style="list-style-type: none"> <li>• Recycled the waste effectively</li> <li>• Reduced the environmental pollution</li> <li>• 35 tonnes of vermi compost are being sold per year</li> <li>• Earning an approximate profit of Rs. 75,000 per year.</li> </ul>
<b>Lessons learnt</b>	:	<ul style="list-style-type: none"> <li>• Application of vermi compost enhances growth and yield of the crop rather than normal compost because of its growth hormone content and fetches huge margin.</li> <li>• Efficient way of utilizing agricultural waste.</li> </ul>
<b>Details of spreading success to other farmers or farmers groups</b>	:	More no. of farmers were visited his farm and learnt the technology.





**10.D. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year**

Nil

**10.E. Give 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)**

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Paddy	<i>Vasambu (Acotus calamus)</i> powder and cow urine are mixed in the water that has been boiled and cooled over night and the seeds are soaked in the solution. The floating seeds are removed. The remaining seeds are used for sowing.	This serves the dual purpose of seed selection and treatment of seed borne disease
2		The place with higher elevation in the field is selected for raising paddy nursery	Water flooding is avoided
3		Ash is dusted on the germinated paddy nursery before the occurrence of heavy rain.	This practice prevents toppling of seedlings and also accumulation of seedlings on one side
4		Farm waste and trash are burnt on the nursery beds. The heat that is generated by burning, sterilizes the soil and some nutrients like potash is added	For effective nutrient management
5		A mixture of coconut water and buttermilk is used to increase the number of flowers in paddy. A mixture of 5 liters of coconut water and 5 liters of buttermilk is kept in a mud pot. This pot is buried in the soil for 5-7 days, after that one liter of solution is mixed with 10 liters water to spray on the crop,	For increase number of flowers in the crop.
6		Nochi leafs along with stored paddy grain. News paper clippings and herbal leaf mixture.	To repel stored product pests
7	Pulses	Use of neem oil / red earth	To repel stored product pests in Pulses
8		Coating the pulse seeds with arappu leaf powder	To protect the seeds from ants and birds
9		Drying of blackgram seeds during new moon time	To protect from pulse beetle infestation
10	Vegetables	Neem extract/ Pungam Oil/ Panchaghavya	To control sucking pests and borers in vegetables
11	Animal husbandry	Oral administration Aloe vera & Aanai nerunji leaves	To induce heat in cows
12		Oral administration of Betelvines, omam	To solve indigestion problem in goats
13		Equal quantity of Napthalene balls and camphor were mixed with water into paste and apply on the body of cattles for 2 hours	To control parasites
14		Application of fat of pigs/henna leaf paste	To control foot and mouth disease in cattles

**10.F. Indicate the specific training need analysis tools/methodology followed for****Identification of courses for farmers / farm women**

- Participatory exercises
- Farm science club conveners meeting
- Monthly zonal work shop
- SAC meetings
- Questionnaire method / Contact letter
- Village meetings
- Personal contact / Field visits
- Discussion with farmers and farm advisory visit
- Feed back analysis obtained at the end of every meeting
- Training needs registered by the youths (Training needs register)
- Farmers – scientist- extension workers quarterly interaction meetings

**Rural youth**

- Personal contact
- Participatory rural exercises
- KVK direct contact programmes/interactive meetings
- Feedback analysis obtained at the end of every meeting
- Training needs registered by the youths (Training needs register)

**In service personnel**

- Collaborative meeting with line departments
- Discussion with extension functionaries during the monthly zonal workshop
- Collaborative meeting with line departments
- Farmers – scientist- extension workers quarterly interaction meetings

**10.G. Field activities**

(i)	Number of villages adopted	14
(ii)	Number of farm families selected	110
(iii)	Number of survey / PRA conducted	14

**10.H. Activities of Soil and Water Testing Laboratory**

- Status of establishment of Lab : Yes
1. Year of establishment : 17.06.2005

2. List of equipments purchased with amount :

S. No.	Name of the Equipment	Qty.	Cost (Rs.)
1.	Spectrophotometer	1	75,072
2.	Flame Photometer	1	36,720
3.	P <sup>H</sup> Meter	1	7,344
4.	EC Meter	1	7,344
5.	Physical balance	1	28,080
6.	Chemical balance	1	1,01,770
7.	Water distillation still	1	26,118
8.	Nitrogen digestion and distillation	1 set	1,72,675
9.	Shaker	1 set	44,077
10.	Refrigerator	1	19,500
11.	Hot plate	1	1,875
12.	Grinder	1	11,582
	<b>Total</b>	<b>12</b>	<b>532157</b>

Details of samples analyzed so far since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	3330	3102	826	84375
Water Samples	3077	3049	999	29580
<b>Total</b>	<b>6407</b>	<b>6151</b>	<b>1825</b>	<b>113955</b>

Details of samples analyzed so far since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	3212	3002	776	81425
Water Samples	3002	2979	959	28830
<b>Total</b>	<b>6214</b>	<b>5981</b>	<b>1735</b>	<b>110255</b>

10.I. Technology Week celebration during 2014-15 : Nil

**CELEBRATION OF TECHNOLOGY MONTH**

Period of observing Technology month : Does not arise

Total number of farmers visited : Does not arise

Total number of agencies involved : Does not arise

Number of demonstrations visited by the farmers within KVK campus: Does not arise

**Other Details**

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Lectures organized	-	-	-
Exhibition	-	-	-
Diagnostic Practical's	-	-	-
Supply of Literature (No.)	-	-	-
Supply of Planting materials (No.)	-	-	-
Total number of farmers visited the technology week	-	-	-

**10. J. Interventions on drought mitigation (if the KVK included in this special programme)**

Our KVK was not included under this special programme and hence the following details could not be provided.

- |   |                  |
|---|------------------|
| A. Introduction of alternate crops/varieties                  | - Does not arise |
| B. Major area coverage under alternate crops/varieties        | - Does not arise |
| C. Farmers-scientists interaction on livestock management     | - Does not arise |
| D. Animal health camps organized                              | - Does not arise |
| E. Seed distribution in drought hit states                    | - Does not arise |
| F. Large scale adoption of resource conservation technologies | - Does not arise |
| G. Awareness campaign   | - Does not arise |

**PART XI. IMPACT****11.A. 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./Unit)	After (Rs./Unit)
Drought mitigation in rice	625	25	Rs. 30000/ha	Rs. 35000/ha
Introduction of Anna 4 Paddy variety in drought prone areas	56	45	Rs. 34557/ha	Rs. 43485/ha
Precision farming technology (Sugarcane)	500	40	Rs. 127000/ha	Rs. 155000/ha
Introduction of ADT (R) 49 paddy	48	35	Rs. 40000/ha	Rs. 47000/ha
Transplanted redgram-FLD	20	10	Rs.17000/ha	Rs.25000/ha
Value addition in millets –vocational training	20	5	Rs. 5000/month	Rs. 7000/month
Value addition in fruits and vegetables – vocational training	22	12	Rs. 7000/month	Rs. 30000/month
Flower arrangement techniques - vocational training during 2012-13	15	10	Rs. 10000/month	Rs. 28000/month
Quality seedling production –Vocational training	40	25	Rs. 10000/month	Rs. 35000/month
Integrated Farming system-wet land –FLD & Training	100	30	Rs.1,26,050/ha	Rs.3,61,312
Integrated Farming system –dry land – FLD & Training	100	25	Rs.10,000/ha	Rs.33,000/ha

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

## 11.B. Cases of large scale adoption

(Please furnish detailed information for each case)

<b>CASE 1.</b>	<b>QUALITY SEEDLING PRODUCTION – NURSERY TECHNOLOGIES</b>
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In Cuddalore district apart from Paddy, Sugarcane and Oilseed crops, the tree crops like Cashew, Jack, Mango are other important crops fetches commercial value to the farmers. In addition to this, the vegetable cultivation is also being carried out in about 700 ha. The quality seedling production is an important profitable venture in this district. Before the KVK interventions, farmers bought the seedlings from the nurseries of nearby districts, for which they had to pay a huge amount.

### Interventions of this KVK

Realising the commercial value behind the production of quality seedling production on the above crops, this KVK arranged for series of trainings for the rural youths of this district. The quality seedling production techniques like shade net nursery establishment and maintenance, different commercial grafting methods in cashew, mango, jack and ornamental plants like, crossandra, rose, jasmine, and crotons were taught to the trainees. Besides, the rural youths were also given skill training on the production of quality seedlings on vegetable crops like brinjal, tomato, chilli, etc through portray method.

### After KVK intervention

There were about 22 rural youths attended this vocational training during Jan 2010. They were also guided properly during our follow up visits. Few elite youths like, Mr.R.Muthukumaran, Mr. Murugan have first started this commercial production of quality seedlings. On seeing their success now in the Vegakollai village itself there are about 12 shade net nurseries producing the quality seedlings of the above crops. More over on our continuous and intensive efforts, there are about 15 new nursery establishments in the villages around our KVK and as of now in Cuddalore district there are about 500 shade net nurseries involved in the production of quality seedlings on commercial basis and our KVK scientists are offering valuable technology advisories to them

These nurseries are selling the seedlings to the farmers of neighbouring districts and neighbouring states like, Andhra, Karnataka and Orissa. A cashew seedling which costs around Rs. 24 at Tamil Nadu fetches higher market value of about Rs. 48 in the neighbouring states. On an average, farmers get annual average income of Rs. 200000 to Rs. 700000 depending upon the size of the shade net nurseries and the volume of the business

<b>CASE 2.</b>	<b>ANNA 4 DROUGHT TOLERANT VARIETY</b>
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Anna 4 paddy was released during 2009 and is a semi dwarf, erect and non-lodging drought tolerant variety. The Cuddalore district has considerable area under rainfed rice especially in Nallur, Mangalore and also part of Bhuvanagiri and Vriddhchalam blocks during samba season. Generally, farmers get very low yield mainly under rainfed situation due to use of local varieties and moisture stress.

#### **Interventions of KVK, Vriddhachalam**

During Samba 2012-13, this KVK has introduced this drought tolerant variety ANNA 4 to the above rainfed area under OFT programme. The farmers were trained well on improved production technologies for this rainfed rice and also they were explained about the performance of ANNA 4 paddy variety. The OFT programme was conducted in Sathiyam, Vaiyankudi and Thatchukadu areas. The farmers have realized a increase of 23.81% yield over ruling Kar variety. The net return from the ANNA 4 variety was Rs. 43485/- per ha than of Rs. 34557/- from local rice variety. Besides, the farmers were also impressed with the performance of ANNA 4 in terms of establishment, tiller production and non lodging characteristic until harvest. ANNA 4 variety has slender white rice compared local kar (red bold) and fetches more market value than local kar (red bold).

#### **Impact of intervention**

A farmer named Mr. Ram Jegathesh from Thatchukadu village of Parangipettai block cultivated ANNA 4 rice variety in his field at OFT trial in 2 ha. He had followed all agronomic and plant protection practices as recommended. He showed excellent yield performance in his field even though the entire cauvery delta zone suffered out of severe water scarcity during this samba season. More over as the crop stand was good in his field, during a field assessment made by the Director of Extension Education and the Programme Co-ordinator of this KVK it has been decided to procure TFL seed from this farmer for distribution to the local farmers. Accordingly we procured 1535 kg of TFL seed from this farmer with the approval of the honourable Vice Chancellor of Tamil Nadu Agricultural University. The farmer received “Best farmer” Award from the Honourable Minister for Agriculture, Tamil Nadu for the year 2013. The farmer has produced more than 3 tons of TFL seed during 2013 for further horizontal spread. This year 52 farmers adopted this variety in about 500 acres.

<b>CASE 3.</b>	<b>AREA SPECIFIC MINERAL MIXTURE</b>
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TANUVAS evolved area specific mineral mixture “TANUVAS – SMART” mineral mixture and which is much than the conventional mineral mixture. About 50 g of TANUVAS – SMART mineral mixture should be supplemented to cows daily, which means that a farmer having five cows would be able to save about Rs 1000 / year.

#### **Intervention of KVK, Vridhachalam**

On farm trial on the assessment of mineral mixture “TANUVAS – SMART has been conducted during the period 2012- 13 at Sathiyavadi village, Vridhachalam Taluk. Totally 40 cows were taken for assessment (20 for control and 20 for treatment) with the following technological options.

Technology option-1 (Farmer’s practice) – No mineral mixture

Technology option -2 (TANUVAS Mineral mixture)

Technology option -3 (Area specific mineral mixture)

Finally it was found that Area specific mineral mixture fed cows produced more milk (3-4 liters/day) compared to ordinary mineral mixture (2-3 liters/day) and control (1-2 liters/day).

**Before intervention :** Poor milk yield, unhealthy and poor consumption rate of dairy cows.

**After intervention :** After intervention, dairy cows gave more milk and the external appearance was also good and healthy. On seeing the success of this trial and on our subsequent intensive trainings now more than 200 farmers are using this mineral mixture for their dairy cows.

**CASE 4.****INTEGRATED FARMING SYSTEM UNDER WETLAND SITUATION**

Integrated farming system is a holistic approach which is nothing but integration of agriculturally allied enterprises along with the cropping with the objectives of increasing income and recycling of farm wastes and by products to sustain the soil productivity .The allied enterprises were selected based on the resource availability and agro ecological situation. The efficiency of the component linkages was evaluated predominately on the basis and employment generation with the possibility of recycling the organic wastes.

Earlier the small farmers followed cropping system alone (Rice-rice fallow pulses) in their farm. They earned low yield and income from the crop due to aberrant weather situations like drought, flood and cyclone etc. and also they faced unemployment combined with no income during the off season.

**KVK,Vridhachalam intervention:**

The integrated farming system experiments were conducted at wetland since 2012 onwards at this Kendra. Integration of crop along with fish, poultry and vermi compost unit in the wet land system under 1 ha of land .The crop (Rice-Maize/cotton-) is cultivated in 0.9 ha of land. The density of fingerlings stockings 1000 is nos. The poultry shed is erected over the fish pond with 50 nos. poultry breed of Vanaraja and Giriraja. The product from the crop like broken rice, maize grains and oil cakes were fed to poultry .The poultry droppings and rice bran, oil cakes were supplied as a feed to the fish. The byproducts were efficiently recycled in IFS through this the cost of production is greatly reduced simultaneously net income generated (Rs.3,61,312) is increased and more employment opportunity is created (1200 man days /year) is increased. During 2012-13 three nos. of wet land FLDs were conducted in Alichikudi, Gopurapuram and Puliur villages .Subsequently IFS based intensive trainings were arranged for the local farmers and extension functionaries.

**After intervention:**

After the technological backstopping provided by the KVK, Vridhachalam many farmers realized the benefits of IFS (wetland).They have shifted their cropping pattern and farming system from conventional to integrated farming system in order to attain the sustainable livelihood. The farmers have obtained higher production and income throughout the year. The economic and society status of the farmer is certainly by this intervention. In one hectare of wet land systems a farmer could get a net additional income of Rs.1,08,350/- from the allied enterprises apart from his crop component.

**Feedback from the farmers:**

Integration of crop cultivation along with fish and poultry rearing is the profitable, sustainable and employment generating technology. The financial status of the farmer is improved by this intervention .The farmers were satisfied with this intervention.



## **Horizontal spread**

Within a short period of 2012-14, now through interactive efforts in collaborative with local extension functionaries now about 25 Nos. farmers have established their own wetland IFS system in their farms, especially in Karveppilankurchi and Chinnakanadi areas.

### **11.C. Details of impact analysis of KVK activities carried out during the reporting period**

#### **1. Analyzing the effectiveness of the on and off campus training programmes**

The following methods were employed to assess the effectiveness of the on and off campus training programmes.

- a. Obtaining formal feed back at the end of each training programme in the prescribed format. This revealed the effectiveness of Subject Matter Specialist, delivery of subject and the content of the training. For each and every training such analyses were carried out and based on the feedback necessary corrections were done in the training methodologies
- b. Informal discussion at the end of the training period to assess the impact of the programme
- c. For certain very important vocational trainings we assessed the pre and post training knowledge level of the trainees by employing participatory methods.
- d. Regular follow up / mobile contacts etc.,

#### **2. Demonstrations and diagnostic field visits**

- a. Participatory appraisal techniques
- b. Informal discussion
- c. Personal contacts (Farm and Home visits/telephone calls/SMS communications)
- d. By assessing the percentage of adoption through casual discussion and questionnaire methods

#### **4. Other extension activities (Exhibitions /Newsletter/KVK literature/Media activities/FFS/Field days etc.,)**

- a. Feed back register
- b. Informal discussion
- c. Responses through our social media activities (Face book activities)

**PART XII - LINKAGES**

**12.A. Functional linkage with different organizations**

This Kendra has developed a strong functional linkage with Govt. and Non-Govt. organizations for conducting training programmes, demonstrations, seminar, campaigns, farm advisory service, farmers study tour and other extension activities to achieve the Krishi Vigyan Kendra mandates. The details of the collaborative activities carried out are furnished below.

Name of Organization	Nature of linkage
<b>Dept. of Agriculture</b>	<ul style="list-style-type: none"> <li>◆ Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization</li> <li>◆ Mid monthly and Monthly Zonal Workshop</li> <li>◆ FLD – Field day</li> <li>◆ Participated in the training programme</li> <li>◆ Watershed &amp; Waste land development programme</li> <li>◆ Seedling supply</li> <li>◆ District level farm improvement committee</li> <li>◆ In service training to AOs /AAOs</li> <li>◆ Off campus training programme</li> <li>◆ Farm advisory services</li> <li>◆ Seed farm- seed production meeting</li> <li>◆ ATMA implementation</li> <li>◆ Precision farming project</li> </ul>
<b>Dept. of Horticulture</b>	<ul style="list-style-type: none"> <li>◆ Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization</li> <li>◆ Off campus training programme</li> <li>◆ Collaborative training programme</li> <li>◆ Seedlings supply</li> <li>◆ Demonstration</li> <li>◆ NHM training on cashew, mango, banana, chillies and loose flowers</li> <li>◆ Precision farming project</li> </ul>
<b>Annamalai University, Chidambaram</b>	<ul style="list-style-type: none"> <li>◆ Rural agricultural work experience programme</li> <li>◆ U.G. and P.G. students visit to KVK</li> <li>◆ Training to FSC clubs</li> </ul>
<b>TANUVAS, UTRC, Cuddalore</b>	<ul style="list-style-type: none"> <li>◆ Resource persons for training</li> </ul>
<b>Agricultural Extension Wing, Department of agriculture (TANCOF)</b>	<ul style="list-style-type: none"> <li>◆ Off campus training</li> <li>◆ Seed supply &amp; Watershed development</li> <li>◆ Training on oil seed production technology</li> </ul>
<b>Department of Animal husbandry</b>	<ul style="list-style-type: none"> <li>◆ Advisory service</li> </ul>
<b>Collectorate, Cuddalore</b>	<ul style="list-style-type: none"> <li>◆ Grievance day meeting</li> <li>◆ NLC expansion programme-alternate employment for displaced riots</li> <li>◆ Agricultural production council meeting</li> <li>◆ Periodical technical / consultative meeting</li> </ul>

Table 12. A contd..

<b>Mahalir Thittam / DRDA Cuddalore</b>	<ul style="list-style-type: none"> <li>◆ Sponsored training</li> <li>◆ SGSY – SHG training</li> <li>◆ Skill up-gradation programme</li> <li>◆ Vazhalnthukattuvom project</li> </ul>
<b>Higher Secondary Schools</b>	<ul style="list-style-type: none"> <li>◆ Awareness campaign</li> <li>◆ NSS campaign</li> </ul>
<b>NGOs</b>	<ul style="list-style-type: none"> <li>◆ Awareness campaign</li> <li>◆ Training programme</li> <li>◆ Demonstration</li> </ul>
<b>NABARD, Cuddalore</b>	<ul style="list-style-type: none"> <li>◆ Farmers group discussion</li> <li>◆ TTC meetings</li> <li>◆ Trainings to farmers</li> </ul>
<b>Agriculture Engineering Dept. Govt. of Tamil Nadu</b>	<ul style="list-style-type: none"> <li>◆ Rain water harvesting programme</li> <li>◆ Training on agricultural implements and river basin development</li> <li>◆ Resource person for department training programmes</li> </ul>
<b>ZRC, Coimbatore</b>	<ul style="list-style-type: none"> <li>◆ Training on power tiller operation, maintenance and its attachments</li> <li>◆ Implements supply</li> </ul>
<b>Dept. of Millets, TNAU, Coimbatore</b>	<ul style="list-style-type: none"> <li>◆ FLD in kodomillet and maize</li> <li>◆ Seed supply</li> </ul>
<b>Dept. of Forage crops, TNAU, CBE</b>	<ul style="list-style-type: none"> <li>◆ FLD and OFT on forage crops</li> </ul>
<b>NGO- KVKs</b>	<ul style="list-style-type: none"> <li>◆ Training and exposure visit</li> <li>◆ Seed materials supply &amp; FLD / OFT discussion</li> </ul>
<b>WTC, Tamil Nadu Agricultural University, Coimbatore</b>	<ul style="list-style-type: none"> <li>◆ Drip and sprinkler unit supply</li> <li>◆ Technical support</li> <li>◆ Training on micro irrigation</li> </ul>
<b>Indian Bank, Vriddhachalam</b>	<ul style="list-style-type: none"> <li>◆ Training programmes</li> </ul>
<b>AIR,Puducherry</b>	<ul style="list-style-type: none"> <li>◆ Helps to popularize the latest technology</li> </ul>

**12.B. List Externally Funded Projects / schemes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies**

<b>Name of the scheme</b>	<b>Role of KVK</b>	<b>Date/ Month of initiation</b>	<b>Funding agency</b>	<b>Amount (Rs.)</b>
<b>NADP – SSI Training</b>				
Agriculture	Conducting training to 600 Nos.of beneficiary farmers in 30 batches in the following blocks Cuddalore, Annagramam, Panruti, Nallur, Kurinchipadi Kattumanarkoil, Vriddhachalam block	2013-14 (conducted during 2014-15)	NADP	4,56,000

**12.C. Details of linkage with ATMA**

a) Is ATMA implemented in your district Yes

If yes, role of KVK in preparation of SREP of the district?

**Coordination activities between KVK and ATMA during 2014-15**

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	1. GB meeting 2. Technology advisory meeting 3. ATMA functionaries, farmers and scientists interaction meet	10 8	- - 1	-
02	Research projects	-	-	-	-
03	Training programmes	➤ ATMA Farm Schools ➤ Crop advisory Trainings ➤ Training for the block level BTM and SMS	5 5 10	4	-
04	Demonstrations	All block level demonstrations organized by ATMA functionaries	15	5	➤ Panchakavya preparation ➤ Market based extension ➤ Crop management techniques
05	Extension Programmes				
	Kisan Mela	Farmers day	1	1	TRRI Adthurai and TNAU Coimbatore
	Exposure visit	-	-	-	-
	Exhibition	-	2	2	-
	Soil health camps	Soil health camp organized by ATMA	5	2	-
	Animal Health Campaigns	Animal Health Campaign- Cuddalore	3	-	-
	Others (Pl. specify)	-	-	-	-
06	<b>Publications</b>	<b>Nil</b>			
07	<b>Other Activities</b> (Pl. specify)	<b>Nil</b>			

**12.D. Give details of programmes implemented under National Horticultural Mission** : Nil

**12.E. Nature of linkage with National Fisheries Development Board** : Nil

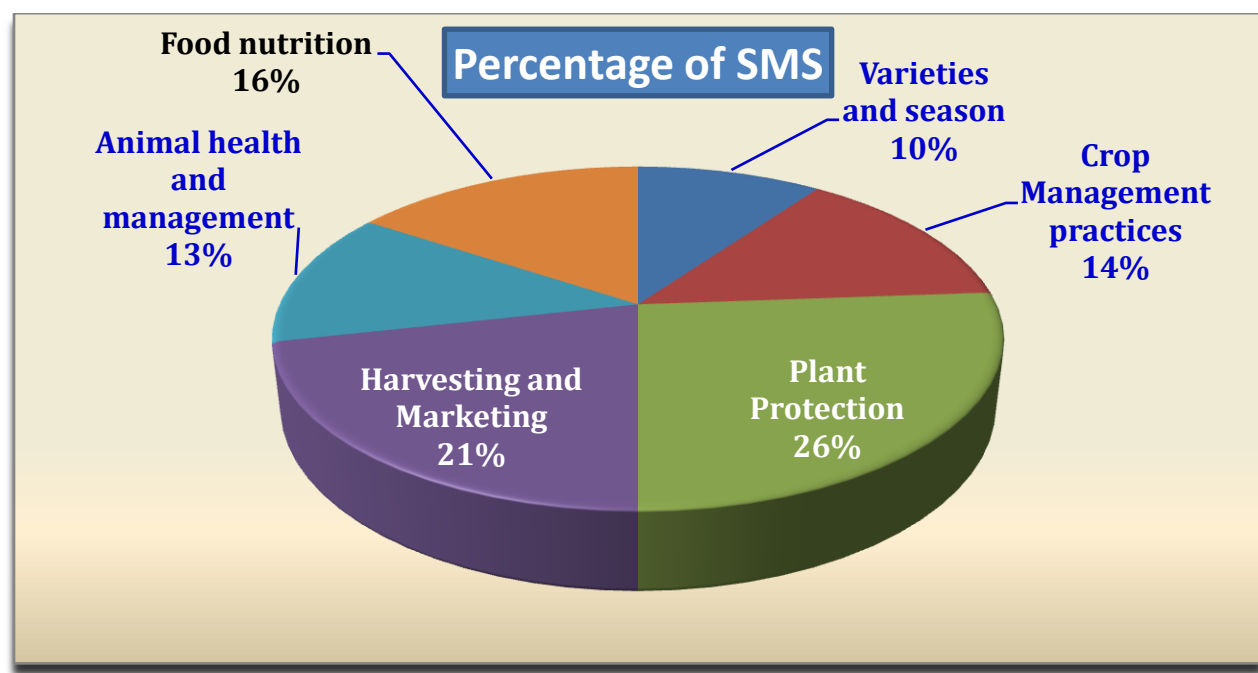
## 12. F. Details of linkage with RKVY

:

One project on Sustainable sugarcane Initiatives to farmers were conducted under NADP- RKVY during 2013-14 at KVK, Cuddalore. There are 600 farmers were benefited from the training. Training on single chip bud making, drip irrigation, protray seedlings and management, planting of seedlings and management in main field were demonstrated to the trainees.

## 12. G Kisan Mobile Advisory Services

A mobile advisory account has been created at the farmers' portal (KMAS) during 2014-15. Through Kisan advisory services KVK, Cuddalore has given advisory services to farmers like crop management practices based on climate, selection of suitable season and varieties and other management practices like fertilizer and weed management. Based on pest and disease outbreak we have also given advisory services to the farmers. So far 534 no. of farmers were registered and benefitted by this service in the Cuddalore district and 172 SMS was sent to the beneficiaries through the portal.





**13.C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)**

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
2.	Vermicompost	1090kgs	Rs.6/kg	Rs.6540/-	-

**13.D. Performance of instructional farm (livestock and fisheries production)**

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1.	Goat	Tellicherry	Goat	4 nos	Rs.240/kg of live weight	Rs.25,300	-

**13.E. Utilization of hostel facilities: Accommodation available (No. of beds)**

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2014	5	13	-
May 2014	5	10	-
June 2014	3	9	-
July 2014	5	12	-
August 2014	3	9	-
September 2014	2	8	-
October 2014	1	4	-
November 2014	10	26	-
December 2014	12	19	-
January 2015	4	12	-
February 2015	1	4	-
March 2015	1	9	-

**13.F. Database management**

S. No	Database target	Database created
1	Resource inventory of the district <ol style="list-style-type: none"> <li>1. Nine fold classification of land</li> <li>2. Number and size of operational holdings</li> <li>3. Weather parameters of the district (for minimum 10 years)</li> <li>4. Details of soil profile</li> <li>5. Detailed cropping pattern (for minimum 10 years)</li> <li>6. Area, production and productivity of major crops</li> <li>7. Details of livestock wealth of district</li> <li>8. Production and productivity of livestock produces</li> <li>9. Area under irrigation from different sources</li> <li>10. Seasonal availability of labour</li> <li>11. Trend in wholesale price of major crop and livestock products(for minimum 10 years)</li> <li>12. Details of input agencies</li> <li>13. Details of infrastructural facilities available for production, post harvest and marketing</li> <li>14. Details of institutional credit facilities</li> <li>15. Any other relevant to district</li> </ol>	Completed

2	Farmers database Details of farmers	Completed
3	Technology inventory for the district Details of suitable technologies for a district with their details	Completed
4	Database for technologies assessed and refined Technologies taken up for assessment and refinement with their attributes	Completed
5	Frontline demonstrations database Details of crops and enterprises along with technologies identified for demonstration	Completed
6	Training database Details of training programmes across all categories and types of participants	Completed
7	Database of extension programmes Details of extension activities conducted with types of participants	Completed
8	Seeds and Planting material database Details of crops along with varieties produced and sold	Completed
9	KVK inventory of assets Details of inventions including all assets explaining year of purchase, present condition etc	Completed
10	KVK account database Various accounts along with their sanction, expenditure etc	Completed

### 13.G. Details on Rain Water Harvesting Structure and micro-irrigation system -Nil

## PART XIV - FINANCIAL PERFORMANCE

### 14.A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India						
With KVK	State Bank of India	Vriddhachalam	00954	Main	11074361787	000240	SBIN0000954
	State Bank of India	Vriddhachalam	00954	RF-Farm	11074361743	000662	SBIN0000954
	State Bank of India	Vriddhachalam	00954	RF-Buliding	11074361754	-	SBIN0000954

### 14.B. Utilization of KVK funds during the year 2014-15 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	9500000	0	9930782
2	<b>Traveling allowances</b>	111000		151057
		-	9960633	-
3	<b>Contingencies</b>			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	50000	-	228325
B	POL, repair of vehicles, tractor and equipments	50000	-	144831
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	20000	-	74866
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	20000	-	76193



<i>E</i>	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	100000	-	100000
<i>F</i>	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	60000	-	59958
	Integrated Farming system	10000	-	45585
<i>G</i>	Training of extension functionaries	10000	-	24890
<i>H</i>	Maintenance of buildings	10000	-	49001
<i>I</i>	Extension activities	10000	-	47387
<i>J</i>	Farmers Field School	10000	-	30000
<i>K</i>	Library	0	-	3503
<b>TOTAL (A)</b>		9961000	9960633	10966378
<b>B. Non-Recurring Contingencies</b>				
1	Works	-	-	-
2	Equipments including SWTL & Furniture	-	-	-
3	Vehicle (Four wheeler/Two wheeler, please specify)	-	-	-
4	Library (Purchase of assets like books & journals)	-	-	-
<b>TOTAL (B)</b>		-	-	-
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		9961000	9960633	10966378

#### 14.C. Status of revolving fund building (Rs. in lakh) for the three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2012 to March 2013	352235.72	123220	36106	439349.72
April 2013 to March 2014	439349.72	138650	379229	198770.72
April 2014 to March 2015	198770.72	120615	115619	203316.72

#### Status of revolving farm (Rs. in lakh) for the three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2012 to March 2013	446711	458279	410440	494550.0
April 2013 to March 2014	494550	348210	477056	365704.01
April 2014 to March 2015	365704.01	383644	510586	238762.01

#### 15. Details of HRD activities attended by KVK staff during 2014-15

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr.V.Vijayageetha	SMS (Seed science and technology)	ATMA-Strategic planning training	JDA, Tirunelveli	2.6.14-06.06.14
Dr. T. Saravanan	SMS (Plant Pathology)	IPM in important crops of Puducherry,Tamil Nadu and Kerala “	KVK, Puducherry	10.09.2014-12.09.2014
Dr.M.Malarkodi	SMS (Soil science)	Organic certification and internal control system	NCOF, Bangalaoe	13.10.14-18.10.14

Dr.S.Kannan	SMS(FS&N)	Food and nutritional security of the rural house holds-role of women	MANAGE	18.10.14
Dr.K.Venkata lakshmi	SMS (Agronomy)	Integrated farming system	DEE, TNAU, Coimbatore	27.10.14
Dr.S.Kannan	SMS(FS&N)	Frontier home science technologies for knowledge and economic empowerment	ZPD zone VIII, BANGALORE	28.10.14-30.10.14
Dr.K.Venkata lakshmi	SMS (Agronomy)	Mandated activities of KVK	KVK, Thrissur	18.11.14 25.11.14
Dr.V.Vijayageetha	SMS (Seed science and technology)	PIMA (Participatory impact arepalayam,Erode)	MYRADA, KVK, Erode	18.11.14-25.11.14
Dr.T.Saravanan	SMS (Plant pathology)	Farmers Field school	TNAU, Coimbatore	20.11.14 - 21.11.14
Dr.T.Saravanan	SMS (Plant pathology)	Commodity futuristic market	CARDS, TNAU	25.11.14 - 26.11.14
Dr.V.Vijayageetha	SMS (Seed science and technology)	Pre and post harvest seed crop management techniques for improving productivity of agricultural and horticultural crops and their marketability	TNAU, Coimbatore	2.12.14-24.12.14
Dr.S.Kannan	SMS (FS&N)	Promoting the market potential of livestock and poultry products	DEE, TANUVAS	29.12.14-30.12.14
Dr.M.Malarkodi	SMS (Soil science)	Soil Resilience	AC&RI, Madurai	21.01.15-22.01.15
Dr.K.Venkata lakshmi	SMS (Agronomy)	Oil palm production technologies	ARS, Pattukottai	24.2.15
Dr.K.Venkata lakshmi	SMS (Agronomy)	Bamboos its importance, utilization and conservation	IFGTB, Coimbatore	2.3.15

**16. Please include any other important and relevant information which has not been reflected above (write in detail).**

<b>Farmers Field School</b>	<b>QUALITY SEEDLING PRODUCTION TECHNIQUES IN HORTICULTURAL CROPS</b>
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- Farmers Field school has been conducted at Gunamangalam, Kattumannarkoil block with the aim to upscale the knowledge of farmers regarding to latest technologies in seedling production in horticultural crops.
- This programme has been conducted during the period of 20.11.2014 to 6.3.15.
- Totally 25 nos. of farmers were registered and participated in this course.
- The various topics like quality seedling production for gourds, small onion and flower crops, organic farming in vegetable seedling production ,identification and management of pest and disease in nursery were covered by the scientist of this KVK viz., Dr.V.Vijayageetha (SST), Dr.T.Saravanan (PP), Dr.M.Malarkodi (SS&AC)). Dr.K.Venkatalakshmi, SMS (Agronomy) and Dr.S.Kannan has co-ordinated the programme.

**The following is the lesson schedule of the FFS programme.**

S.No	Date	Title	Name of the Scientist
1	18.11.14	*Introduction about farmers field school *Importance of production of quality seedling in horticultural crops	Dr.S.Kannan & Dr.V.Vijayageetha

2	28.11.14	Quality seedling production in small onion,annual moringa and cluster bean	Dr.V.Vijayageetha
3	04.12.14	Quality seedling production in all types of gourds	Dr.V.Vijayageetha
4	12.12.14	Quality seedling production in jasmine, tuberose and marigold etc	Dr.V.Vijayageetha
5	19.12.14	Coir compost (coco peat)production technology	Dr.M.Malarkodi
6	02.01.15	Nutrient management in nursery	Dr.M.Malarkodi
7	09.01.15	Protray method of seedling production	Dr.K.Venkatalakshmi
8	23.01.15	Organic farming in vegetable seedling production	Dr.K.Venkatalakshmi
9	31.01.15	Identification of pest and diseases in nursery	Dr.T.Sarvanaan
10	06.02.15	Management of pest and diseases in nursery	Dr.T.Sarvanaan
11	13.02.15	Biological control of the diseases in quality seedling production	Dr.T.Sarvanaan
12	20.02.15	Introduction to shade nets and poly houses,construction and uses	Dr.M.Malarkodi
13	27.02.15	Post harvest technology of vegetables and flowers	Dr.S.Kannan
14	06.03.15	Marketing strategies successful cases and importance of group formation	Dr.S.Kannan

## SUMMARY FOR 2014-15

### I. TECHNOLOGY ASSESSMENT

#### Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Varietal Evaluation	Ragi	Assessment of different Ragi varieties for salt affected soil	6
	Ground nut	Assessment of drought tolerant Ground nut variety	3
	Bhendi	Assessment of suitable Co (hy) 1 Bhendi hybrid for Cuddalore district	5
	Brinjal	Assessment of suitable brinjal hybrid for Cuddalore district	10
Integrated Crop Management	Direct seeded paddy	Assessment of effective weed control measures in direct seeded paddy	5
	Rice fallow pulses	Assessment of different management strategies to mitigate drought in rice fallow pulses	5
Others	Coco peat bio conversion	Assessment of coco peat bioconversion techniques and its performance under portray nursery	5
<b>Total</b>	7		39

Summary of technologies assessed under livestock : Nil

Summary of technologies assessed under various enterprises : Nil

Summary of technologies assessed under home science : Nil

### II. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops : Nil

Summary of technologies assessed under refinement of various livestock : Nil

Summary of technologies refined under various enterprises : Nil

Summary of technologies refined under home science : Nil

### III. FRONTLINE DEMONSTRATION

Crop	Thematic area	Name of the technology demonstrated	No. of KV Ks	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Black gram	Varietal demonstration	Demonstration of Black gram MDU 1	-	10	2	7.60	6.25	21.6	No. of pods/plant – 30 No. of seeds/plant - 7.4	No. of pods/plant –26 No. of seeds/plant -6.2	19500	47500	28000	2.44	19500	39063	19563	2.00
Black gram	Varietal demonstration	Demonstration of post emergence herbicide for black gram	-	12	4.8	7.72	6.90	11.9	No. of pods/plant-22.2 100 seed-weight 82	No. of pods/plant -18.4 100 seed-weight -75	30392	60750	30358	1.99	23942	55650	27258	1.96
Paddy	Varietal demonstration	Demonstration of rice CO 51	-	10	2.4	54.73	49.75	10.0	No. of productive tillers/hill - 22.5 No. of grains/panicle -184.5	No. of productive tillers/hill -20.0 No. of grains/panicle -165	33,680	82,095	48,415	<b>2.44</b>	33,680	73,125	39,445	2.17
Paddy	Varietal demonstration	Demonstration of TNAU rice TRY 3 in salt affected soils	-	10	4	57.64	47.25	22.0	No. of productive tillers/hill - 25.7 No. of grains/panicle 139.9	No. of productive tillers/hill -21.1 No. of grains/panicle -118.5	35,120	86,460	51,340	2.46	33,450	70,875	37,425	2.12

Direct seeded paddy	Crop management	Demonstration of drought management technology packages in direct sown paddy	-	10	4 ha	40.79	37.51	8.74	No.of productive tillers/hill -17 No.of grains/panicle -198	No.of productive tillers/hill -11 No.of grains/panicle-174	36,550	81,428	44,878	<b>2.22</b>	37,950	77,345	39,395	2.03
Paddy	Crop management	Demonstration and farmers participatory seed production of paddy variety ANNA 4 for rain fed areas of Cuddalore district	-	10	2	43.30	36.80	43.3	No.of productive tillers/hill-16 No.of grains/panicle --205	No.of productive tillers/hill -10 No.of grains/panicle-187	35,500	58,630	42440	2.19	36,200	66240	30740	1.86
Ground nut	Crop management	Demonstration of chiseling in ground nut under alfisols	-	10	4	21.51	18.14	21.5	No.of pods/plant-15 100 seed weight-38	No.of pods/plant -12 100 seed weight-35	32,500	1,18,305	85,805	<b>2.64</b>	31,500	99,770	68,270	<b>2.18</b>
Lab lab	Varietal demonstration	Demonstration of Bush type lablab CO (GB) 14	-	10	4	74.50	52.10	42.9	No.of pods/plant-18	No.of pods/plant -12	28,000	145820	117820	5.20	25460	81452	55992	3.19
Turmeric	Disease management	Demonstration of IDM for rhizome rot management in turmeric	-	5	2.5 ha	85.62	75.50	13.4	Rhizome rot incidence - 4.10 No.of fingers/plant - 8.75	Rhizome rot incidence -19.15 No.of fingers/plant -6.05	41750	1,85886	154136	4.45	30,152	1,66,052	125900	4.13

Banana	Crop management	Demonstration of high density planting in banana	-	5	2.5 ha	452.0	348.0	29.8	No.of hands/bunch No.of fingers/bunch	No.of hands/bunch No.of fingers/bunch	58,750	1,95306	1,36556	3.32	56,745	15,3462	1,47817	2.70
Fodder sorghum	Varietal demonstration	Demonstration of Fodder sorghum CO 31	-	10	4	1323 tonne	-	-	No.of tillers/plant-15.45 No.of leaves/plant -262	No.of tillers/plant-13.75 No.of leaves/plant -240	25,000	1,12000	77000	4.1	1.The farmer cultivated only sorghum CO 31 and used for fodder purpose 2.The farmers have used their own paddy straw available near by place. So check value is not available.			
Livestock	Nutrient management	Demonstration of enriching and ensiling of sugarcane tops for higher milk yield in cows	-	5	2	12	10	16	Palatability-good Daily Intake-2.3 kg/day	Palatability-not good Daily Intake-1.5 kg/day	15,120	40,520	25400	2.67	16,000	36,000	20,000	2.25
Poultry	Demonstration of Nandhana m II Turkey	Nandhana m II turkey	The demonstration was withheld due to budget constraint															
	Farming system	IFS in wet land	-	2	2(units)	55.85	48.30	15.63	Employment generation-785man days	Employment generation - 912 man days	1,21,448	4,20,153	2,98,705	<b>3.45</b>	78,520	2,84,560	2,06,040	3.62
		Dry land	-	2	2(units)	5.05	4.2	20.4	Employment generation-96 man days	Employment generation -365 man days	24,270	56,160	32,090	<b>2.31</b>	11,250	20,157	89,07	1.79

FLD conducted during 2013-14	Demonstration of Arka meghana chilli hybrid in cuddalore district	Arka meghana chilli seed		Irrigated	10	2	302	275	282.00	324.00	-12.96	42450	145280	102830	3.42	42754	167852	125098
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\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST











Mushroom production	-	-	-	-	-	-	-	-	-	-
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	-	-	-	-	-	-	-	-	-	-
<b>Others</b>	1	18	7	25	-	-	-	18	7	25
<b>Total</b>	<b>9</b>	<b>465</b>	<b>148</b>	<b>613</b>	<b>182</b>	<b>86</b>	<b>268</b>	<b>647</b>	<b>234</b>	<b>881</b>

### Training for Rural Youths including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	-	-	-	-	-	-	-	-	-	-
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-
Integrated farming	1	17	12	29	-	-	-	17	12	29
Seed production	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Vermi-culture	-	-	-	-	-	-	-	-	-	-
Mushroom Production	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	1	14	3	17	-	-	-	14	3	17
Value addition	1	18	9	27	2	4	6	20	13	33
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>3</b>	<b>49</b>	<b>24</b>	<b>73</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>51</b>	<b>28</b>	<b>79</b>

**Training for Rural Youths including sponsored training programmes (off campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	1	20	-	20	8	-	8	28	-	28
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-
Integrated farming	-	-	-	-	-	-	-	-	-	-
Seed production	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Mushroom Production	-	-	-	-	-	-	-	-	-	-
Value addition	5	62	70	132	9	12	21	71	82	153
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>6</b>	<b>82</b>	<b>70</b>	<b>152</b>	<b>17</b>	<b>12</b>	<b>29</b>	<b>99</b>	<b>82</b>	<b>181</b>

**Training programmes for Extension Personnel including sponsored training programmes (on campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	1	10	2	12	8	4	12	18	6	24
Integrated Pest Management	2	20	4	24	7	4	11	27	8	35
Integrated Nutrient management	1	18	1	19	2	4	6	20	5	25
Protected cultivation technology	1	-	12	12	7	3	10	7	15	22
Production and use of organic inputs	1	8	6	14	8	1	9	16	7	23
Care and maintenance of farm machinery and implements	1	11	6	17	2	5	7	13	11	24
Information networking among farmers	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>7</b>	<b>67</b>	<b>31</b>	<b>98</b>	<b>34</b>	<b>21</b>	<b>55</b>	<b>101</b>	<b>52</b>	<b>153</b>

**Training programmes for Extension Personnel including sponsored training programmes (off campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	1	44	12	56	22	11	33	66	23	89
Integrated Pest Management	2	63	14	77	16	14	30	79	28	107
Integrated Nutrient management	1	35	9	44	14	9	23	49	18	67
Protected cultivation technology	2	41	19	60	20	16	26	61	35	96
Care and maintenance of farm machinery and implements	2	74	16	90	21	-	21	95	16	111
Management in farm animals	1	23	4	27	3	29	32	26	33	59
<b>Total</b>	<b>9</b>	<b>280</b>	<b>74</b>	<b>354</b>	<b>96</b>	<b>79</b>	<b>165</b>	<b>376</b>	<b>153</b>	<b>529</b>

**Sponsored training programmes**

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>1</b>	<b>Crop production and management</b>										
1.a.	Others (pl.specify)	1	250	150	400	145	55	200	395	205	600
	IPM on vegetables	1	65	10	75	18	7	25	83	17	100
	PPVR&RI	1	45	15	60	27	13	40	72	28	100
	PPVR&RI	1	75	8	83	10	7	17	85	15	100
	ATMA	5	324	173	497	168	85	253	492	258	750
	NABARD	2	101	43	144	86	44	130	187	87	274
<b>3</b>	<b>Agricultural Extension</b>										
3.a.	Others	2	82	37	119	74	33	107	156	70	226
	<b>Total</b>	<b>13</b>	<b>942</b>	<b>436</b>	<b>1378</b>	<b>528</b>	<b>244</b>	<b>772</b>	<b>1470</b>	<b>680</b>	<b>2150</b>

**Details of Vocational Training Programmes carried out for rural youth**

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>1</b>	<b>Crop production and management</b>										
1.a.	Integrated crop management(IFS)	1	26	2	28	5	0	5	31	2	33
1.b.	Organic farming	1	41	7	48	12	5	15	53	12	65
<b>2</b>											
2.a.	Value addition	1	8	15	23	3	14	17	11	29	40
<b>3.</b>											
3.a.	Vermi-composting	-	-	-	-	-	-	-	-	-	-
3.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-
3.c.	Mushroom cultivation	1	10	2	12	4	4	8	14	8	20
3.d.	Nursery, grafting etc.	1	14	4	18	8	7	15	22	11	33
	<b>Grand Total</b>	<b>5</b>	<b>99</b>	<b>30</b>	<b>129</b>	<b>32</b>	<b>30</b>	<b>60</b>	<b>131</b>	<b>62</b>	<b>191</b>

**V. Extension Programmes**

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	Total
Advisory Services	500	500	25	525
Diagnostic visits	12	122	15	137
Field Day	10	295	15	310
Group discussions	11	175	16	191
Film Show	10	192	12	204
Self -help groups	4	100	4	104
Kisan Mela	1	412	12	424
Exhibition	2	513	20	533
Scientists' visit to farmers field	25	177	10	187
Plant/animal health camps	3	111	-	111
Farm Science Club	-	-	-	-
Farmers' seminar/workshop	7	192	10	202
Method Demonstrations	15	244	15	259
Celebration of important days	4	63	2	65
Exposure visits	6	600	-	600
<b>Total</b>	<b>610</b>	<b>3696</b>	<b>156</b>	<b>3852</b>



**Details of other extension programmes**

Particulars	Number
Extension Literature	13
News Letter	4
News paper coverage	37
Technical Articles	4
Technical Reports	5
Radio Talks	9
TV Talks	-
Animal health camps (Number of animals treated)	2
<b>Total</b>	<b>74</b>

**VI. PRODUCTION OF SEED/PLANTING MATERIAL****Production of seeds by the KVKs: Nil**

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (q)	Value (Rs)	Number of farmers

**Production of planting materials by the KVKs**

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Number	Value (Rs.)	Number of farmers
Fruits	Cashew grafts	VRI 3	9803	235272	300
	Jack grafts	PLR 1	50	2500	25
Medicinal and Aromatic	Insulin,Aloe vera	-	1350	27000	300
Ornamental plants	Crotons	-	56	10	1120
<b>Total</b>			<b>11,259</b>	<b>2,64,782</b>	<b>1745</b>

**Production of Bio-Products**

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
	Vermicompost	1090	6540	10
<b>Total</b>		<b>1090</b>	<b>6540</b>	<b>10</b>

**Production of livestock and related enterprise materials**

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
<b>Dairy animals</b>				
Others (Pl. specify) Goat	Tellicherry goat	4	25300	2
<b>Total</b>				

**VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2014-15**

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	3212	3002	776	81425
Water	3002	2979	959	28830
<b>Total</b>	<b>6214</b>	<b>5981</b>	<b>1735</b>	<b>110255</b>

### VIII. SCIENTIFIC ADVISORY COMMITTEE

**Number of SACs conducted - 1 Nos. (20.06.2013)**

### IX. NEWSLETTER

**Number of issues of newsletter published - 4 Nos. (Quarterly issue)**

### X. RESEARCH PAPER PUBLISHED

**Number of research paper published - 5 (3 nos.of full paper+2 nos. of abstracts)**

Surfactant producing PGPR for management of rhizome rot of ginger and Turmeric –Symposium on Challenges and management approaches for crop diseases of national importance –status and prospects	Sarvanan,T., T.Meganathan and K.Nageswari,2015
Fungicides and time of application for management of leaf rust disease in coffee.- Symposium on Challenges and management approaches for crop diseases of national importance –status and prospects	Sarvanan,T and R.Arulmozhiyan,2015
Standardization of vigour test for measuring the vigour status of mustard genotypes-Research Journal of Seed Science.	V.Vijayageetha,P.Balamurugan and M.Bhaskaran, 2014,7(3)
Standardization of Polymer seed film coating technique- Inter. Journal of Emerging Technologies In Computational and Applied Sciences.	V.Vijayageetha, P.Balamurugan and M.Bhaskaran, 2014,8(6)
Maximising red gram yield through integrated agronomic management practices under alkali soil-Research Journal of Forestry and Agricultural Sciences.	K.Venkatalakshmi,2014,2(3)

### XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM - Nil

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**ON FARM TRIALS**



**Assessment of effective weed control measures in direct seeded paddy**



**Assessment of different Ragi varieties for salt affected soil**



**Assessment of drought tolerant ground nut varieties**



**Assessment of different management strategies to mitigate drought in rice fallow pulses**



**Assessment of a suitable Bhendi hybrid for Cuddalore district**



**Assessment of cocopeat bioconversion techniques and its performance under protray nursery**

# Frontline Demonstration conducted at KVK-Cuddalore 2014-15



Demonstration of Rice CO 51



Demonstration of TNAU Rice TRY3 in salt affected soils



Demonstration of drought management technology packages in direct sown paddy



Demonstration and farmers participatory seed production of paddy variety ANNA4 for rain fed areas of Cuddalore district



Demonstration of chiseling in ground nut under alfisols



Demonstration of post emergence herbicide for black gram



**Demonstration of Black gram MDU 1**



**Demonstration of bush type lab lab CO (GB) 14**



**Demonstration of high density planting method in banana**



**Demonstration of IDM for rhizome rot in Turmeric**



**Demonstration of enriching and ensiling of sugarcane tops**



**Demonstration of fodder sorghum C031**

**ON CAMPUS TRAINING**



**Training on Hitech coconut production**



**Training on Pest and disease management in paddy**



**Training on value addition in vegetables and fruits**



**Training on Mechanization in paddy cultivation**



**Training on use of computer and TNAU agriportal**



**Training on ICM in groundnut and black gram cultivation**

## OFF CAMPUS TRAINING



Training on value addition in minor millets at karupanchavadi village



Training on Rat eradication at Kumaramanagalam village



Training on value addition in minor millets at Gunamangalam village



Livestock management in Sathakudal village



Organic input production and uses in Agriculture



Market led Extension training at Karuppanchavadi Village

**VOCATIONAL TRAINING**



**SPONSORED TRAININGS**



**Awareness Programme on IPM in Vegetables**



**Market led extension**



**NADP- Training on sustainable sugarcane initiatives (SSI) to the farmers**





**Training to extension functionaries**



**DEMO UNIT BASED EXTENSION ACTIVITIES**



**Hi-Tech Nursery**



**Herbal Garden**



**Azolla Production Unit**



**Mush Room Production Unit**

**Diagnostic Field Visit**



**Cotton - Boll shedding at Mangalore**



**Nutrient management in Groundnut - Kurinchipadi**



**Watermelon- Low yield at Sri mushnam**



**Watermelon -Viral disease at Kothattai**



**Pest and disease in samba paddy- Karupanchavadi**



**Soil problems -M Parur**

**FARMERS FIELD SCHOOL**



**Farmer Producer Organization promoted by KVK, Cuddalore**



