

**ANNUAL REPORT 2010-11**  
(APRIL 2010 TO MARCH 2011)

**6-8, Feb 2012**



**ICAR-KRISHI VIGYAN KENDRA**  
**Tamil Nadu Agricultural University**  
**Sikkal-611 108**  
**NAGAPATTINAM**



# ANNUAL REPORT 2010-11

**(APRIL 2010 TO MARCH 2011)**

## **KRISHI VIGYAN KENDRA (NAGAPATTINAM) 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 Tamilnadu Agricultural University Sikkal, Nagapattinam – 611 108.	04365- 246266	04365- 246266	kvksikkal@tnau.ac.in	-

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

Address	Telephone		E mail	Web Address
	Office	Fax		
Tamilnadu Agricultural University Coimbatore -641 003	0422- 2431222		vctnau@tnau.ac.in	www.tnau.ac.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.T.Dhamodaran, Ph.D.,	9150151495	93448 86867	kvksikkal@tnau.ac.in aexdhmlal@yahoo.com

### **1.4. Year of sanction: 2004**

**1.5. Staff Position (as 31<sup>st</sup> March 2011)**

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. T. Dhamodaran	Associate Professor	M	Agrl. Extension	Ph.D.,	15600-39100+8000	26050 + 8000	31.05.10 (AN)	Permanent	SC
2	SMS	Dr. J. John Gunasekar	Associate Professor	M	Bio Energy	Ph.D.	37400-67000+9000	37400 + 9000	07.08.09	Permanent	BC
3	SMS	Dr. M. Joseph	Assistant Professor	M	Agronomy	Ph.D.	15600-39100+7000	22830 + 7000	21.07.10	Permanent	SC
4	SMS	Dr. G. Thangamani	Assistant Professor	F	Agrl. Micro	Ph.D.	15600-39100+7000	22830 + 7000	18.11.2010	Permanent	MBC
5	SMS	Dr. T. Elaiyabharathi	Assistant Professor	M	Agrl. Entomology	Ph.D.	15600-39100+6000	19600+ 6000	30.12.09	Temporary	BC
6	SMS	Dr. G. Malathi	Assistant Professor	F	Horticulture	Ph.D.	15600-39100+6000	19600+ 6000	31.12.09	Temporary	MBC
7	SMS	Dr. K. Sivakumar	Assistant Professor	M	Soil Science	Ph.D.	15600-39100+6000	18850+ 6000	12.01.10	Temporary	BC
8	Programme Assistant (Lab Tech.)	Th. V. GnanaBharathi	Programme Assistant (Lab Tech.)	M	Agriculture	B.Sc (Agri)	9300-34800+4400	11600 + 4400	05.06.07	Permanent	SC
9	Programme Assistant (Computer)	Th. R. S.Swamiappan	Programme Assistant (Computer)	M	Computer science	MCA	9300-34800+4400	11130 + 4400	8.12.08	Permanent	BC
10	Programme Assistant/ Farm Manager	Th. R. Vedharethinam	Farm Manager	M	Agronomy	M.Sc (Ag) Agronomy	9300-34800+4400	11600 + 4400	04.06.07	Permanent	MBC
11	Assistant	Th. N. Sankar	Junior Assistant cum Typist	M	Office	MA, B.Ed	5200-20200	5200+ 2400	28.02.2011	Temporary	MBC
12	Jr. Stenographer	Tmt. S. Shanthi	Junior Assistant cum Typist	F	Office	MA	5200-20200	5200+ 2400	28.02.2011	Temporary	BC
13	Driver	Th. V. Rajan	Driver cum Mechanic (Foreman)	M	Office	--	5200-20200+2400	12650 + 4200	07.06.10	Permanent	MBC
14	Driver	Th. P. Govindaraju	Driver	M	Office	H Sc.,	5200-20200	5200+ 2000	28.02.2011	Temporary	SC
15	Supporting staff	Th. S. Rajendran	PUSM	M	Office	--	5200-20200+1300	6850+ 1300	03.05.10	Permanent	MBC
16	Supporting staff	Th. C. Kaliyaperumal	PUSM	M	Office	--	5200-20200+1300	7110+ 1300	14.09. 10	Permanent	BC

**1.6. Total land with KVK (in ha) : 22.6 ha**

S. No.	Item	Area (ha)
1	Under Buildings	2.40
2.	Under Demonstration Units	3.60
3.	Under Crops	15.40
4.	Orchard/Agro-forestry	1.20
5.	Others	0.0
	Total	22.6

**1.7. Infrastructural Development:**
**A) Buildings**

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs. lakh)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR		548m2	41.65			Completed
2.	Farmers Hostel	ICAR		300m2	26.38			Completed
3.	Staff Quarters							
	1	ICAR		400m2	33.30			Completed
	2							
	3							
	4							
	5							
	6							
4.	Demonstration Units							
	1. Rain water harvesting	RSVY Agri		5000 m2	6.00			Completed
5	Fencing	ICAR		--	5.00			Completed
6	Rain Water harvesting system	AED, Nagai – (subsidy)		2100 m2	0.08			Completed
7	Threshing floor	ICAR		--	3.00			In progress
8	Implement/ vehicle shed	ICAR		--	3.00			Completed
9	Irrigation system	ICAR		--	3.00			Completed
10	Land levelling	ICAR		--	3.00			Completed
11	Farm godown	--		--	--			--

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Four Wheeler Bolero Jeep	2004	4,88,210/-	119298	Good condition
Two Wheeler (TVS – star city)	2006	39,641/-	56305	Good condition
Two Wheeler (Suzuki Access 125)	2009	49651/-	11225	Good condition

## C) Equipments &amp; AV aids

Sl. No.	Name of Equipments	Date of purchase	Cost (Rs. in lakhs)	Present status
1.	Tractor - TN-51-C-1924	2004	3,47,607	Good
2.	Rotovator	2004	68,500	Good
3.	Cultivator	2004	14,645	Good
4.	Cage Wheel	2004	11,684	Good
5.	Leveller	2004	8,922	Good
6.	Computer with Accessories	2005	75,000	Good
7.	Xerox machine	2005	73,968	Good
8.	Shredder	2006	25,605	Good
9.	Digital Camera	2006	19,950	Good
10.	Flow through paddy thresher	2006	50,000	Good
11.	Laminar air flow chamber	2007	37,856	Good
12.	Autoclave – vertical	2007	33,560	Good
13.	Digital pH meter	2007	14,850	Good
14.	Digital electronic balance	2007	18,150	Good
15.	Computer – Desktop – 2No	2007	93,000	Good
16.	Computer (Laptop – Compaq)	2007	49,400	Good
17.	LCD Projector – 2 No	2007	1,07,000	Good

## 1.8. Details SAC meeting conducted in 2010-11

Sl.No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
NIL					

**PART II - DETAILS OF DISTRICT**

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

S. No	Farming system/enterprise
<b>Rice based cropping system and Farming systems</b>	
1.	Rice – Rice – Fallow
2.	Rice – Rice – Groundnut / Gingelly
3.	Rice – Pulses / Cotton / Gingelly
4.	Rice – Sugarcane (3 years rotation)
5.	Rice - Vegetable
6.	Coconut, Mango and Cashew , Aquaculture and inland fish farming

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

S. No	Agro-climatic Zone	Characteristics
1	Cauvery Delta Zone	Nagapattinam a coastal district of Tamil Nadu, lies between 10° 8' and 11° 28' in North Latitude and 76° 34' and 75° 53' in East Longitude. It is bounded on the north by Cuddalore, South by Palk Strait, West by Tiruvarur and on the East by Bay of Bengal

  

S. No	Agro ecological situation	Characteristics
1	Coastal Eco system	Nagapattinam is categorized as agro-ecological region 18, representing the Coastal eco-system-Eastern coastal plain, hot sub-humid to semi-arid eco-system with a growing period of 90 to 210 days

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in lakh ha
1.	Clay loam	High WHC	0.98
2.	Clay sandy loam	Medium WHC	0.55
3.	Sandy soil	Low WHC	0.35
		<b>Total</b>	1.88

2.4. Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
1.	Paddy	160908	581329	3395
2.	Millets	5.0	NA	NA
3.	<b>Pulses</b>			
	Blackgram	54476	40208	650
	Greengram	26313	21592	600
4.	Sugarcane	3694	NA	NA
5.	Cotton	1633	NA	NA
6.	<b>Oilseeds</b>			
	Groundnut	3248	8133	2200
	Gingelly	624	487	480
7.	Coconut	3483	NA	NA
8	Cashew	869	365	420
9	Mango	1845	7232	3920

Source: JDA, Nagapattinam

## 2.5. Weather data

Month	Rainfall (mm)	Temperature <sup>0</sup> C		Relative Humidity (%)
		Maximum	Minimum	
April 2010	5.5	35.7	26.4	73.0
May 2010	141.5	35.2	26.7	76.9
June 2010	106.0	35.4	26.2	74.0
July 2010	63.5	34.7	25.6	68.7
August 2010	236.5	34.8	25.5	72.3
September 2010	113.0	32.5	25.3	81.1
October 2010	110.0	32.0	25.6	82.5
November 2010	541.0	29.6	24.2	94
December 2010	512.0	28.2	22.6	97.6
January 2011	18.0	28.9	21.3	93.2
February 2011	37.5	29.8	21.3	88.5
March 2011	0.0	31.7	22.1	83.1

Source: AWS, KVK, Sikkal

## 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Cow</i>	254611	NA	NA
Buffalo	26934	NA	NA
Crossbred	54061		
<b>Sheep</b>			
Crossbred	9834	NA	NA
<i>Indigenous</i>	23220	NA	NA
<b>Goats</b>			
Crossbred	107719	NA	NA
<i>Indigenous</i>	322205	NA	NA
<b>Pigs</b>			
<i>Crossbred</i>	818	NA	NA
<i>Indigenous</i>	2598	NA	NA
<b>Rabbits</b>			
	1377	NA	NA
<b>Poultry</b>			
Hens		NA	NA
<i>Desi</i>	264164	NA	NA
<i>Improved</i>	35894	NA	NA
Ducks	12712	NA	NA
Turkey and others	775	NA	NA
<b>Fish</b>			
<i>Marine</i>		61479 t	
<i>Inland</i>		7120 t	2.0t/ha
Prawn		NA	NA
Scampi		NA	NA
Shrimp		NA	NA

Source: Joint Director of Animal husbandry, Nagapattinam

2.7. District profile has been prepared and submitted : 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	Nagapattinam	1. Nagapattinam	North Poigainallur., South Poigai nallur Palpannaichery Sikkal, Manikkapangu, Vadugacherri,	2005	Rice-Rice-Pulses Rice-Ground Nut Rice-Vegetables	1. Problematic soil 2. Low yield 3. Water scarcity during summer 4. Inundation of water during monsoon	1. Introduction of micro irrigation techniques 2. Crop diversification 3. Introduction of suitable high yielding & marketable varieties
		2. Thirumarugal	Poothanur, Edaiyathangudi, Panangudi,	2007	Rice-Rice-Pulses Rice-Rice-Cotton	1. Low yield 2. Water scarcity 3. Inundation of water during monsoon	1. Crop diversification 2. Introduction of suitable high yielding & marketable varieties
2	Tirukkuvilai	3. Keezhaiyur	Thirukkuvilai Keezhaiyur Palakurichi	2006	Rice-Rice-Pulses Rice-Rice-Ground Nut	1. Problematic soil 2. Water scarcity	1. Crop diversification 2. Soil health management
3.	Kilvelur	4. Kilvelur	Nangudi Kilvelur Athipuliyur Thevur Ilupur Avarani Puducherry	2004	Rice-Rice-Pulses	1. Water scarcity 2. Flood damages 3. Pest and disease problems	1. Introduction of suitable high yielding & marketable varieties 2. ICM & IPM 3. Diversification



4.	Vedaranyam	5. Vedaranyam	Vedaranyam Pushbahavanam Periyakuthagai Vettaikaranirrupu Kathiripulam	2005	Rice-Rice-Pulses Rice-Ground Nut Jasmine, Rice-Vegetables Cashew & Mango	1. Water scarcity 2. Inundation of water during monsoon 3. Salinity problem	1. Introduction of micro irrigation techniques 2. Introduction high value vegetables. 3. Soil health improvement
		6. Thalainayar	Thalainayar	2005	Rice-Rice-Pulses Jasmine, Rice-Vegetables Cashew & Mango	1. Flood water damage during monsoon 2. Water scarcity 3. Salinity problem	1. Introduction of suitable high yielding & marketable varieties 2. Soil health improvement
5.	Mayiladuthurai	7. Mayiladuthurai	Mayiladuthurai Manganallur	2009	Rice-Rice-Pulses Rice-Rice-Ground Nut Rice-Rice-Cotton Rice-Banana	1. Flood damages 2. Heavy Soil with poor drainage	1. IFS concept 2. Introduction of alternate cropping system 3. Farm mechanization
		8. Kuthalam	Kuthalam	2009	Rice-Rice-Pulses Rice-Banana Rice-Rice-Ground Nut Rice-Rice-Cotton/ Vegetable	1. Flood damages 2. Heavy Soil with poor drainage	1. IFS concept 2. Introduction of alternate cropping system 3. Farm mechanization
6.	Sirkazhi	9. Sirkazhi	Agani Thirukadaiyur Sirkali Vaitheeswarankoil	2007	Rice-Rice-Pulses Rice-Rice-Cotton Rice-Ground Nut/Vegetables Banana, Sugarcane	1. Poor drainage in heavy soils 2. Saline problem	1. Precision farming in Vegetables 2. Crop diversification
		10. Kollidam	Kollidam	2009	Rice-Rice-Pulses Rice-Rice-Cotton Rice-Ground Nut/Vegetables Sugarcane, Banana	1. Poor drainage in heavy soils 2. Saline problem	1. Precision farming in Vegetables 2. Crop diversification
7.	Tharangampadi	11.Sembanarkoil	Poraiyar Tharangampadi Anaimattam	2009	Rice – Rice – Pulses Rice – Groundnut/Vegetables Rice – Cotton Sugarcane & Banana	1. Poor drainage in low lands 2. Saline problem 3. Water scarcity	1. Precision farming in Vegetables 2. Crop diversification

## 2.9 Priority thrust areas

- Soil health management
- Seed production
- Precision farming
- Crop diversification
- Integrated farming system
- Farm mechanization
- Agro forestry
- Non crop activities – Inland Fish Farming, Apiculture, Back yard poultry

### **PART III - TECHNICAL ACHIEVEMENTS**

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

OFT				FLD			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
6	6	30	30	13	10	89	69

Training				Extension Programmes			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
45	80	2000	2632	500	491	2500	3544

Seed Production (Qtl.)		Planting materials (Nos.)	
Target	Achievement	Target	Achievement
-	-	-	-

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
Target	Achievement	Target	Achievement
-	-	-	-

**3. B1. Abstract of interventions undertaken based on thrust areas identified for the district as given in Sl.No.2.9**

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										Supply of bio products	
				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	Supply of planting materials (No.)	Supply of livestock (No.)	No.	Kg	
1	Precision farming	Vegetables	-	-	-	-	-	-	-	-	-	-	-	-	
2	Crop diversification	Rice	Inundation and water logging during monsoon period	Evaluation of submergence tolerance rice varieties for samba season	-	2	-	6	15	100 kg	-	-	-	-	
3		Vegetables	Problematic soil Low yield Water scarcity during summer	-	Popularization of PKM 1 Moringa in deltoic alluvial soil	2	-	-	-	200g					
					Protected Cultivation of vegetables under shade net during off season	-	-	-	-	100 g					
4	Integrated farming system concept	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	Soil and water conservation	Pulses and oil seeds	Water scarcity during summer		Popularization of mobile sprinkler in rice fallow pulses and oil seeds	1	-	1	2	-	-	-	-	-	
6	Soil health management	Rice	Inundation of water during monsoon	Integrated algal management in rice eco system	-	1	-	-	-	Copper sulphate 2.5 kg/ha	-				

7		Rice	Low yield		ICM using bio-inoculants in rice	3	1	-	-	PSB, KSB, SISB, ZnSB	-	-	-	-
8	Farm mechanization	Rice	Heavy infestation of weeds Poor crop establishment in SRI	Evaluation of different weeders in SRI		2	1	-	-	-	-	-	-	-
9		Rice	Labour scarcity		Farm Mechanization	4	1	-	-	Seeds and hiring macheneries				
10	Agro forestry	-	Non availability of fodders		Popularization of fodder bank at village level	-	-	Not performed due to non-availability of inputs in time			-	-	-	-
11	Non crop activities	Dairy	Low milk yield	Area Specific Mineral Mixture for Dairy cows	-	-	-	-	-	ASMM and TANUVAS mineral mixture				
12		Fishery	Low income under composite fish culture	Evaluation of polyculture in inland fisheries in Delta region	Popularization of composite fish culture	2	-	-	-	Fish fingerlings		5000 nos.		
13		<b>Poultry</b>	<b>Less hatchery percentage</b>		<b>Popularization of low cost poultry egg incubator</b>	-	-	<b>Not performed due to non-availability of gadget in time</b>			-	-	-	-
14		Poultry	Low income for landless laborers		Promotion of Backyard poultry to improve the livelihood of farm women	-	-	Not performed due to non-availability of inputs in time			-	-	-	-
15			Less feeding efficiency and poor awareness		Scientific composite fish culture	1		-	-	Fish				

16	IPDM	Rice	Yield reduction due to False Smut disease in rice during Samba season	Management of False Smut disease in Samba paddy	-	1	-	-	-	Fungicides				
17		Rice	Yield reduction due to stem borer and leaf folder and other bacterial diseases		IPDM for Samba rice	4	2	-	-	Bio-pesticides	-	-	-	-

## 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
<b>OFT</b> 1	Evaluation of different weeders in SRI	TNAU	Rice	5	-	3	1
2	Management of False Smut disease in Samba paddy	TNAU	Rice	5	-	1	-
3	Evaluation of polyculture in inland fisheries in Delta region	TANUVAS	Fishery	5	-	1	-
4	Evaluation of submergence tolerance rice varieties for samba season	TNAU	Rice	5	-	-	-
5	Area Specific Mineral Mixture for Dairy cows	TANUVAS	Dairy	10	-	-	-
6	Integrated algal management in rice eco system	TNAU	Rice	5	-	1	-
<b>FLD</b> 7	Farm Mechanization	TNAU	Rice	-	5	4	-
8	Popularization of CORH 3 Hybrid Rice under SRI	TNAU	Rice	-	10	1	-
9	IPDM for Samba rice	TNAU	Rice	-	10	4	-
10	ICM using bio- inoculants in rice	TNAU	Rice	-	10	2	-
11	Popularization of mobile sprinkler in rice fallow pulses and oil seeds	TNAU	Pulses/oil seeds	-	5	1	1
12	Special pulses programme	TNAU	Pulses	-	10	2	1
13	Farmers' participatory seed production in groundnut	TNAU	Ground nut	-	5	-	-
14	Popularization of PKM 1 Moringa in deltoic alluvial soil	TNAU	Moringa	-	5	2	-
15	Protected Cultivation of vegetables under shade net during off season	TNAU	Vegetables	-	4	3	-
16	Popularization of fodder bank at village level	TANUVAS	Fodder	-	-	-	-
17	Popularization of low cost poultry egg incubator	TANUVAS	Poultry	-	-	-	-
18	Promotion of Backyard poultry to improve the livelihood of farm women	TANUVAS	Poultry	-	-	-	-
19	Scientific composite fish culture	TANUVAS	Fishery	-	5	1	-



**4.A.2. Abstract on the number of technologies refined in respect of crops**

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Crop Management	1	-	-	-	-	-	-	-	-	1
<b>Total</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>

**4.A.3. Abstract on the number of technologies assessed in respect of livestock enterprises**

Thematic areas	Cattle	Poultry	Piggery	Rabbit	Fisheries	TOTAL
Nutrition Management	1	-	-	-	-	1
<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

**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
Varietal Evaluation	Rice	Evaluation of submergence tolerance rice varieties for samba season	5	5	2.0
Farm Machineries	Rice	Evaluation of different weeders in SRI	5	5	2.0
Seed / Plant production	Rice	Management of False Smut disease in Samba paddy	5	5	2.0
<b>Total</b>			<b>15</b>	<b>15</b>	<b>6.0</b>

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

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha
Integrated Crop Management	Rice	Integrated algal management	10	10	1
<b>Total</b>			<b>5</b>	<b>5</b>	<b>4.0</b>

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

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Nutrition management	Milch cow	Area Specific Mineral Mixture for Dairy cows	10	30
Production and management	Fish	Evaluation of polyculture in inland fisheries in Delta region	5	5
<b>Total</b>			<b>15</b>	<b>5</b>

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

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
<b>Total</b>				



#### 4.C1. Results of Technologies Assessed

##### Results of On Farm Trial

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter 8	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7		9	10
Rice	Rice-Rice-Pulses	1.Heavy infestation of weeds 2.Poor crop establishment in SRI	Evaluation of different weeders in SRI	5 No.	TO1- FP- Hand weeding TO 2- Cono weeder T O3- TNAU Power weeder	Weed population/m <sup>2</sup> , WCE, Plant height, No of tillers/m <sup>2</sup> , No. of panicles/hill, Panicle length, No. of grains/panicle, 1000 grain weight, Grain & Straw yield and B:C ratio	13.0 77 101 cm 39 37 83 141 20.2 6.6 t 7.8 t 2.81	TNAU power weeder performed well and recorded marginally higher grain yield and higher B:C ratio. Easy to operate and increased field capacity are other benefits of TNAU power weeder	Row to row spacing and line to line spacing should be kept more than 25 cm. Square planting also be necessarily maintained. More stirring with easy operation are the benefit.
Rice	Rice-Rice-Pulses	Yield reduction due to False Smut disease in rice during Samba season	Management of False Smut disease in Samba paddy	5 No	TO1- FP- No prophylatic spray TO 2- Copper hydroxide (Cocide) 500 ml/ha TO 3- Propiconazole @ 500 ml/ha TO 4- Super Pseudomonas 2.5 Kg/ha TO 5- Carbendzim + Mancozeb @ 1Kg/ha	% grains infested, % panicle infested, Grain yield, B:C ratio	29.6 22.22 4.9 t/ha 2.04	Spraying of Propiconazole @ 500 ml/ha was found effective against false smut with lesser number of grain infestation (29.6%) and panicle (22.2%) followed by recommended Kocide (22.6%) as against untreated check (29.62%). Propiconazole and Kocide treatments higher grain yiled of 4950kg/ha and 4332 kg/ha respectively than check.	The farmers got first time awareness on the prophylactic spray with fungicides to control false smut disease and appreciated.
Fish	Inland Fish culture	Low income under composite fish culture	Evaluation of polyculture in inland fisheries in Delta region	5 No	T1- Stunted Fingerlings of Fresh water fish Carp varieties (composite fish culture) @ 2500/ac T2- Stunted Fingerlings of Carp varieties with fresh water Prawn (Macrobrackium spp) (Poly fish culture) @ 2500+2500/ac	Feed utilization efficiency, Growth of fish, Fish yield, B:C ratio	700 – 800 g 3125 kg/ha 2.50 2500 kg/ha 2.00	Cultivation of stunted common carp fingerlings resulted in more yield and benefit cost ratio than the combination of freash water prawn and stunted carp varieties	Growth and yield performance of Common carp was good.  The combination of stunted fingerlings and fresh water prawn had given lesser profit only as compared to stunted common carp

Rice	Rice-Rice-Pulses	Inundation and water logging during monsoon period	Evaluation of submergence tolerance rice varieties for samba season	5 No	T1 - FP T 2- Sub swarna 1	yield	4 t/ha 5.0 t/ha	Occurrence of prolonged inundation for 10 days before flowering, the Swarna Sub 1 performed better than the local variety BPT 5204 and recorded grain yield of 5t/ha than the local check (4t/ha).	Swarna sub 1 performed better under prolonged water stagnation than the local variety.		
Milch cow	Live Stock		Area Specific Mineral Mixture for Dairy cows	10	T1 - Farmers practice (No/irregular mineral supplementation) T 2- <b>Mineral Mixture</b> 30-50 g/day continuously for one year from the day after calving T 3- <b>Area specific Mineral Mixture</b> 30-50 g/day continuously for one year from the day after calving	This OFT was not conducted due to non availability of inputs during right time					
OFT No.	Any refinement needed	Justification for refinement			Technology Assessed		Source of Technology	Production	unit	Net Return in Rs. / unit	BC Ratio
	<b>11</b>	<b>12</b>			<b>13</b>		<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
1	Not Needed	Not needed			T1- FP- Hand weeding			6100	(kg/ha)	33200	2.56
					T 2- Cono weeder		TNAU	6500	(kg/ha)	36400	2.80
					T 3- TNAU Power weeder		TNAU(2010)	6600	(kg/ha)	36800	2.81
2	Not needed. May be proposed to FLD for 2011-12 programme	Spraying of Propiconazole @500ml/ha as prophylactic measure for effective control of false smut			T1- FP- no prophylatic spray			3985	(kg/ha)	18000	1.8
					T 2- Copper hydroxide (Cocide) 500 ml/ha		TNAU-2010	4332	(kg/ha)	23000	2.04
					T 3- Propiconazole @ 500 ml/ha		TNAU-2011	4950	(kg/ha)	28000	2.27
					T 4- Super Pseudomonas 2.5 Kg/ha		TNAU-2011	4055	(kg/ha)	20000	1.90
					T 5- Carbendzim + Mancozeb @ 1Kg/ha		TNAU-2010	4102	(kg/ha)	21000	1.95
3					T1- Stunted Fingerlings of Fresh water fish Carp varieties (composite fish culture) @ 2500/ac		(TANUVAS)	3125	(kg/ha)	1,50,000	2.50
					T2- Stunted Fingerlings of Carp varieties with fresh water Prawn (Poly fish culture) @ 2500+2500/ac		(TANUVAS)	2500	(kg/ha)	1,00,000	2.00
4	Not Needed	Not needed			T1 - FP (BPT 5204)			4000	(kg/ha)	20,000	2.00
					T 2- Swarna Sub 1		IRRI-2009	5000	(kg/ha)	30,000	2.50

5		T1 - Farmers practice (No/irregular mineral supplementation)					
		T 2- <b>Mineral Mixture</b> 30-50 g/day continuously for one year from the day after calving	This OFT was not conducted due to non availability of inputs during right time				
		T 3- <b>Area specific Mineral Mixture</b> 30-50 g/day continuously for one year from					

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

**OFT - 1**

1	Title of Technology Assessed	:	Evaluation of different weeders in SRI	
2	Problem Definition	:	1.Heavy infestation of weeds 2.Poor crop establishment in SRI	
3	Details of technologies selected for assessment	:	T1- FP- Hand weeding T 2- Cono weeder T 3- TNAU Power weeder T 4- Rotary weeder	
4	Source of technology	:	T1- FP- Hand weeding T 2- Cono weeder - TNAU T 3- TNAU Power weeder - TNAU T 4- Rotary weeder - TNAU	
5	Production system and thematic area	:	Rice-Rice-Pulses	
6	Performance of the Technology with performance indicators	:	<b>Technology Assessed</b>	<b>Production (kg/ha)</b>
			T1- FP- Hand weeding	6100
			T 2- Cono weeder - TNAU	6500
			T 3- TNAU Power weeder - TNAU	6600
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Square planting with the spacing more than 25 cm need to be maintained in case of TNAU power weeder. More stiring with easy to operate are the benefit of TNAU power weeder.	
8	Final recommendation for micro level situation	:	TNAU power weeder can be adopted for Nagapattinam District	
9	Constraints identified and feedback for research	:	Farmers opined that the TNAU power weeder performed well over cono weeder	
10	Process of farmers participation and their reaction	:		

**OFT - 2**

1	Title of Technology Assessed	:	Management of False Smut disease in Samba paddy	
2	Problem Definition	:	Yield reduction due to False Smut disease in rice during Samba season	
3	Details of technologies selected for assessment	:	T1- FP- No prophylatic spray T 2- Copper hydroxide (Cocide) 500 ml/ha T 3- Propiconozole @ 500 ml/ha T 4- Super Pseudomonas 2.5 Kg/ha T 5- Carbendzim + Mancozeb @ 1Kg/ha	
4	Source of technology	:	T1- FP- No prophylatic spray T 2- Copper hydroxide (Cocide) 500 ml/ha - TNAU T 3- Propiconozole @ 500 ml/ha - TNAU T 4- Super Pseudomonas 2.5 Kg/ha - TNAU T 5- Carbendzim + Mancozeb @ 1Kg/ha - TNAU	
5	Production system and thematic area	:	Rice-Rice-Pulses	
6	Performance of the Technology with performance indicators	:	<b>Technology Assessed</b>	<b>Production (kg/ha)</b>
			T1- FP- No prophylatic spray	3985
			T 2- Copper hydroxide (Cocide) 500 ml/ha	4332
			T 3- Propiconozole @ 500 ml/ha	4950
			T 4- Super Pseudomonas 2.5 Kg/ha	4055
			T 5- Carbendzim + Mancozeb @ 1Kg/ha	4102
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	The farmers got first time awareness on the prophylactic spray with fungicides to control false smut disease and appreciated.	
8	Final recommendation for micro level situation	:	Spraying of propiconozole @ 500 ml/ha as prophylactic measure during boot leaf and milky stage to control false smut.	
9	Constraints identified and feedback for research	:	Nil	
10	Process of farmers participation and their reaction	:	Farmers are highly interested to adopt to take prophylactic measure against false smut disease during the due course.	

**OFT - 3**

1	Title of Technology Assessed	:	Evaluation of polyculture in inland fisheries in Delta region	
2	Problem Definition	:	Low income under composite fish culture	
3	Details of technologies selected for assessment	:	T1- Stunted Fingerlings of Fresh water fish Carp varieties (composite fish culture) @ 2500/ac  T2- Stunted Fingerlings of Carp varieties with fresh water Prawn (Macrobrackium spp) (Poly fish culture) @ 2500+2500/ac	
4	Source of technology	:	T1- Stunted Fingerlings of Fresh water fish Carp varieties (composite fish culture) @ 2500/ac - (TANUVAS)  T2- Stunted Fingerlings of Carp varieties with fresh water Prawn (Macrobrackium spp) (Poly fish culture) @ 2500+2500/ac- (TANUVAS)	
5	Production system and thematic area	:	Inland Fish culture	
6	Performance of the Technology with performance indicators	:	<b>Technology Assessed</b>	<b>Production (kg/ha)</b>
			T1- Stunted Fingerlings of Fresh water fish Carp varieties (composite fish culture) @ 2500/ac	3125
			T2- Stunted Fingerlings of Carp varieties with fresh water Prawn (Macrobrackium spp) (Poly fish culture) @ 2500+2500/ac	2500
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:		
8	Final recommendation for micro level situation	:		
9	Constraints identified and feedback for research	:		
10	Process of farmers participation and their reaction	:		

**OFT - 4**

1	Title of Technology Assessed	:	Evaluation of submergence tolerance rice varieties for samba season	
2	Problem Definition	:	Inundation and water logging during monsoon period	
3	Details of technologies selected for assessment	:	T1 - FP T2- Swarna Sub 1	
4	Source of technology	:	T1 - FP T2- - Swarna Sub 1 TNAU	
5	Production system and thematic area	:	Rice-Rice-Pulses	
6	Performance of the Technology with performance indicators	:	<b>Technology Assessed</b>	<b>Production (kg/ha)</b>
			T1 - FP	4000
			T 2- Swarna Sub 1	5000
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Though the occurrence of prolonged inundation during the flowering stage, Swarna Sub 1 performed better than local variety BPT 5204	
8	Final recommendation for micro level situation	:	Swarna Sub 1 can be recommended for low lying area during rainy season	
9	Constraints identified and feedback for research	:	-	
10	Process of farmers participation and their reaction	:	Farmers were reluctant to cultivate new Swarna Sub 1 because of Market preference.	

## OFT – 5

1	Title of Technology Assessed	:	Area Specific Mineral Mixture for Dairy cows	
2	Problem Definition	:		
3	Details of technologies selected for assessment	:	T1 - Farmers practice (No/irregular mineral supplementation) T 2- <b>Mineral Mixture</b> 30-50 g/day continuously for one year from the day after calving T 3- <b>Area specific Mineral Mixture</b> 30-50 g/day continuously for one year from the day after calving	
4	Source of technology	:	T1 - Farmers practice (No/irregular mineral supplementation) T 2- <b>Mineral Mixture</b> (TANUVAS) 30-50 g/day continuously for one year from the day after calving T 3- <b>Area specific Mineral Mixture</b> (TANUVAS) 30-50 g/day continuously for one year from the day after calving	
5	Production system and thematic area	:	Live Stock	
6	Performance of the Technology with performance indicators	:	<b>Technology Assessed</b>	<b>Production (kg/ha)</b>
			T1 - Farmers practice (No/irregular mineral supplementation)	
			T 2- <b>Mineral Mixture</b> 30-50 g/day continuously for one year from the day after calving	
			T 3- <b>Area specific Mineral Mixture</b> 30-50 g/day continuously for one year from the day after calving	
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	<b>This OFT was not conducted due to non availability of inputs at right time</b>	
8	Final recommendation for micro level situation	:		
9	Constraints identified and feedback for research	:		
10	Process of farmers participation and their reaction	:		

## D1. Results of Technologies Refined

### Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology refined	Parameters of refined	Data on the parameter	Results of refinement	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Rice	Rice-Rice- Pulses		Integrated algal management in rice eco system	5 no	T1 - FP No application of Cu So4 T 2- Cu So4 @2.5 Kg/ha T 3- CuSo <sub>4</sub> -2.5kg/ha @200/kg  Cono / rotary weeder 2No./ha @500/No  Potash -100 kg/ha @6/kg	Growth & yield data	4750  4950  5190	Yield increased with the application of CuSO <sub>4</sub> along with potash and cono- weeder by increasing the tillering capacity of the crop.	Farmers had better results with the application of CuSO <sub>4</sub> along with potash and cono- weeder. Some farmers felt that the application of CuSO <sub>4</sub> may be increased to have better results.

### Contd..

OFT No.	Any refinement needed	Justification for refinement	Technology Assessed	Source of Technology	Production	unit	Net Return in Rs. / unit	BC Ratio
	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
1			T1 - FP No application of Cu So4		4750	(kg/ha)	20,000/ha	1:1.72
			T 2- Cu So4 @2.5 Kg/ha	TNAU	4950	(kg/ha)	21,500/ha	1:1.78
			T 3- CuSo <sub>4</sub> -2.5kg/ha @150/kg Cono / rotary weeder 2No./ha @500/No Potash -100 kg/ha @6/kg	TNAU	5190	(kg/ha)	22,900/ha	1:1.83

**4. D. 2. Details of each On Farm Trial for refinement to be furnished in the following format separately as per the proforma below**

**OFT - 1**

<b>1</b>	Title of Technology refined	:	Integrated algal management in rice eco system	
<b>2</b>	Problem Definition	:		
<b>3</b>	Details of technologies selected for refinement	:	T1 - FP No application of Cu SO <sub>4</sub> T 2- Cu SO <sub>4</sub> @2.5 Kg/ha T 3- CuSO <sub>4</sub> -2.5kg/ha @200/kg Cono / rotary weeder 2No./ha @500/No Potash -100 kg/ha @6/kg	
<b>4</b>	Source of technology	:	T1 - FP No application of Cu SO <sub>4</sub> T 2- Cu SO <sub>4</sub> @2.5 Kg/ha - TNAU T 3- CuSO <sub>4</sub> -2.5kg/ha @200/kg - TNAU Cono / rotary weeder 2No./ha @500/No Potash -100 kg/ha @6/kg	
<b>5</b>	Production system and thematic area	:	Rice-Rice-Pulses	
<b>6</b>	Performance of the Technology with performance indicators	:	<b>Technology Assessed</b>	<b>Production (kg/ha)</b>
			T1 - FP No application of Cu SO <sub>4</sub>	4750
			T 2- Cu SO <sub>4</sub> @2.5 Kg/ha	4950
			T 3- CuSO <sub>4</sub> -2.5kg/ha @200/kg Cono / rotary weeder 2No./ha @500/No Potash -100 kg/ha @6/kg	5190
<b>7</b>	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Farmers had better results with the application of CuSO <sub>4</sub> along with potash and cono-weeder.	
<b>8</b>	Final recommendation for micro level situation	:	Algal management is very effective in the areas where there is bore-well irrigation.	
<b>9</b>	Constraints identified and feedback for research	:	Nil	
<b>10</b>	Process of farmers participation and their reaction	:	Some farmers felt that the application of CuSO <sub>4</sub> may be increased to have better results.	



**PART V - FRONTLINE DEMONSTRATIONS**

**4. A. Summary of FLDs implemented during 2010-11**

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	Cereals	Wetland	Rabi 2010	Rice	BPT 5204	-	Farm Mechanization	Mechanization in Rice	2	2		5	5	--
2		Wetland	Rabi 2010	Rice	-	CORH 3	Popularization	Popularization of CORH 3 Hybrid Rice under SRI	5	5		10	10	--
3		Wetland	Rabi 2010	Rice	BPT 5204	--	Yield maximization	IPDM for Samba rice	4	4		10	10	--
4		Wetland	Rabi 2010	Rice			Yield maximization	ICM using bio-inoculants in rice	10	10		10	10	
5	Pulses	Wetland	Winter 2011	Rice fallow pulses & oil seeds		--	Popularization	Popularization of mobile sprinkler in rice fallow pulses and oil seeds	10 (5 Pulses + 5Oil seeds)	4+4		5	5	-
6	Oilseeds	Garden land	summer 2011	Black gram		--	Integrated Crop Mangement.	Special pulses programme	4	4		10	10	
		Garden land	summer 2011	Ground nut		--	Integrated Crop Mangement.	Farmers' participatory seed production in groundnut	1	1		5	5	
		Garden land	Kharif 2010	Moringa	PKM 1	--	Popularization	Popularization of PKM 1 Moringa in deltoic alluvial soil	1	1		5	5	--
	Vegetables	Garden land	Summer 2011	Tomato, Chillies Capsicum	Indra	Lakshmi Priyanka	Yield maximization	Protected Cultivation of vegetables under shade net during off season	1200 sq.m	1200 sq.m		4	4	--

	Fodder	Garden land	Summer 2011	CO(CN) 4 Guinea grass – Desmanthus Subabul	CO(CN) 4 - Guinea grass – Desmanthus Subabul		Popularization	Popularization of fodder bank at village level	-	-	-	-	-	-
	Poultry	Incubator	2010-2011	low cost poultry egg incubator			Popularization	Popularization of low cost poultry egg incubator	-	-	-	-	-	-
		Garden land	2010-11	Backyard poultry	Local & hybrid		Improving livelihood of farmers	Promotion of Backyard poultry to improve the livelihood of farm women	-	-	-	-		
	Fishes	Inland fish culture	2010-2011	Composite fish culture	Cutla Rogu Mirgal	--	Popularization	Scientific composite fish culture	1	1		5	5	

### 5.A. 1. Soil fertility status of FLDs plots during 2010-11

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	Oilseeds	Garden land	summer 2011	Ground nut		--	Integrated Crop Management.	Farmers' participatory seed production in groundnut	summer 2011	L	M	H	?
2	Pulses	Wetland	Winter 2011	Rice fallow pulses & oil seeds		--	Popularization	Popularization of mobile sprinkler in rice fallow pulses and oil seeds	Winter 2011	?:	?	?	??
3		Garden land	summer 2011	Black gram		--	Integrated Crop Management.	Special pulses programme	summer 2011	L	M	H	
4	Cereals	Wetland	Rabi 2010	Rice	BPT 5204	-	Farm Mechanization	Mechanization in Rice	Rabi 2010	L	M	H	Fallow
5		Wetland	Rabi 2010	Rice	--	CORH 3	Popularization	Popularization of CORH 3 Hybrid Rice under SRI	Rabi 2010	L	M	H	Fallow
6		Wetland	Rabi 2010	Rice	BPT 5204	--	Yield maximization	IPDM for Samba rice	Rabi 2010	L	M	H	Fallow
7		Wetland	Rabi 2010	Rice			Yield maximization	ICM using bio-inoculants in rice	Rabi 2010	L	M	H	Fallow
8	Vegetables	Garden land	Kharif 2010	Moringa	PKM 1	--	Popularization	Popularization of PKM 1 Moringa in deltoic alluvial soil	Kharif 2010	L	M	H	Vegetables
9		Garden land	Summer 2011	Tomato, Chillies Capsicum	--	Lakshmi Priyanka indra	Yield maximization	Protected Cultivation of vegetables under shade net during off season	Summer 2011	L	M	H	Vegetables
10	Fodder	Garden land	Summer 2011	CO(CN) 4 Guinea grass –Desmanthus Subabul		CO(CN) 4 - Guinea grass – Desmanthus Subabul	Popularization	Popularization of fodder bank at village level	-	-	-	-	-



### 5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (q/ha)			% Increase	*Economics of demonstration Rs./unit)				*Economics of check (Rs./unit)				
					Demo				Check if any	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Poultry	Popularization of low cost poultry egg incubator	egg incubator	5	1				-	-	-	-	-	-	-	-	-	-
	Promotion of Backyard poultry to improve the livelihood of farm women	Local & hybrid	10	-				-	-	-	-	-	-	-	-	-	-

### 5.B.3. Fisheries

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m <sup>2</sup> )	Yield (q/ha)			% Increase	*Economics of demonstration Rs./unit) or (Rs./m <sup>2</sup> )				*Economics of check Rs./unit) or (Rs./m <sup>2</sup> )				
					Demo				Check if any	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Common carps	Scientific composite fish culture	Cutla Rogu Mirgal	5	0.4	31	24	28	24	21	1.0	2.5	1.5	2.05	1.0	1.5	0.5	2.05

### 5.B.4. Other enterprises - NIL

### 5.B.5. Farm implements and machinery- NIL

5.B.6. Cotton

**5.B.6.1. Summary of demonstrations conducted under FLD cotton - NIL**

**5. B. 6.2 Production technology demonstrations - NIL**

**5.B.6.3 Integrated pest management demonstrations- NIL**

5.B.6.4 Demonstrations on farm implements- **NIL**

**5.B.6.5 Extension Programmes organized in Cotton Demonstration Plots**

5.B.6.6 Technical Feedback on the demonstrated technologies on all crops / enterprise - **NIL**

5.B.6.7 Farmers' reactions on specific technologies- **NIL**

5.B.6.8 Extension and Training activities under FLD- **NIL**

**PART VI – DEMONSTRATIONS ON CROP HYBRIDS- NIL**



Entrepreneurial development of farmers/youths	1	35	15	50	-	-	-	35	15	50
<b>Agro-forestry</b>					-	-	-			
Nursery management	1	30	1	31	-	-	-	30	1	31
<b>TOTAL</b>	<b>26</b>	<b>818</b>	<b>41</b>	<b>943</b>	-	-	-	<b>818</b>	<b>41</b>	<b>943</b>

### 7. B.. Farmers' Training 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
<b>Crop Production</b>					-	-	-			
Nursery management	1	40	22	62	-	-	-	40	22	62
Integrated Crop Management	1	23	-	23	-	-	-	23	-	23
<b>Horticulture</b>					-	-	-			
<b>a) Vegetable Crops</b>					-	-	-			
Production of low value and high volume crop	1	10	20	30	-	-	-	10	20	30
Off-season vegetables	1	-	22	22	-	-	-	-	22	22
Exotic vegetables	1	70	15	85	-	-	-	70	15	85
Grading and standardization	1	40	5	45	-	-	-	40	5	45
Others (Precision farming)	3	88	2	90	-	-	-	88	2	90
<b>b) Fruits</b>	-	-	-	-	-	-	-	-	-	-
<b>c) Ornamental Plants</b>	-	-	-	-	-	-	-	-	-	-
<b>d) Plantation crops</b>	-	-	-	-	-	-	-	-	-	-
<b>e) Tuber crops</b>	-	-	-	-	-	-	-	-	-	-
<b>f) Spices</b>	-	-	-	-	-	-	-	-	-	-
<b>g) Medicinal and Aromatic Plants</b>	-	-	-	-	-	-	-	-	-	-
<b>Soil Health and Fertility Management</b>	-	-	-	-	-	-	-	-	-	-
Soil and water testing	1	30	05	35				30	05	35
<b>Livestock Production and Management</b>	-	-	-	-	-	-	-	-	-	-
<b>Home Science/Women empowerment</b>	-	-	-	-	-	-	-	-	-	-
Value addition	1	10	15	25	-	-	-	10	15	25
<b>Agri. Engineering</b>					-	-	-			
Farm machinery and its maintenance	1	0	20	20	-	-	-	0	20	20
Farm mechanization	3	65	29	94	-	-	-	65	29	94
<b>Plant Protection</b>					-	-	-			
Integrated Pest Management	2	33	6	39	-	-	-	33	6	39
Integrated Disease Management	1	30	15	45	-	-	-	30	15	45
Production of bio control agents and bio pesticides	1	30	10	40	-	-	-	30	10	40
Others (papaya mealy bug)	1	25	5	30	-	-	-	25	5	30
<b>Fisheries</b>					-	-	-			
<b>Production of Inputs at site</b>					-	-	-			
Bio-fertilizer production	2	30	7	37	-	-	-	30	7	37
Vermi-compost production	1	23	2	25	-	-	-	23	2	25
Mushroom production	1	34	20	54	-	-	-	34	20	54



<b>Capacity Building and Group Dynamics</b>					-	-	-			
<b>Agro-forestry</b>					-	-	-			
Production technologies	1	50	-	50	-	-	-	50	-	50
<b>TOTAL</b>	<b>25</b>	<b>631</b>	<b>220</b>	<b>851</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>631</b>	<b>220</b>	<b>851</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
Production of organic inputs	1	29	3	32	-	-	-	29	3	32
Mushroom Production	1	23	25	48	-	-	-	23	25	48
Repair and maintenance of farm machinery and implements	2	54	28	82	-	-	-	54	28	82
Value addition	1	10	15	25	-	-	-	10	15	25
Fish harvest and processing technology	1	-	34	34	-	-	-	-	34	34
Any other (mealy bug parasitoids)	1	30	10	40	-	-	-	30	10	40
<b>TOTAL</b>	<b>7</b>	<b>146</b>	<b>115</b>	<b>115</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>146</b>	<b>115</b>	<b>115</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	30	15	45	-	-	-	30	15	45
Protected cultivation of vegetable crops	1	50	5	55	-	-	-	50	5	55
Composite fish culture	1	50	1	51	-	-	-	50	1	51
Any other (tree cultivation )	1	7	25	32	-	-	-	7	25	32
<b>TOTAL</b>	<b>4</b>	<b>137</b>	<b>46</b>	<b>183</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>137</b>	<b>46</b>	<b>183</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	6	123	18	141	-	-	-	123	18	141
Integrated Pest Management	2	35	-	35	-	-	-	35	-	35
Integrated Nutrient management	1	15	-	15	-	-	-	15	-	15
Protected cultivation technology	1	26	5	31	-	-	-	26	5	31
Production and use of organic inputs	1	25	5	30	-	-	-	25	5	30
Care and maintenance of farm machinery and implements	3	50	5	55	-	-	-	50	5	55
Gender mainstreaming through SHGs	1	18	2	20	-	-	-	18	2	20
Any other Agroforestry	1	15	-	15	-	-	-	15	-	15
<b>Total</b>	<b>16</b>	<b>307</b>	<b>35</b>	<b>342</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>307</b>	<b>35</b>	<b>342</b>

7. F. Training programmes for Extension Personnel including sponsored training programmes  
(Off Campus)

- NIL-

**7.G. 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	
1	Crop production and management	-	-	-	-	-	-	-	-	-	-	-
2	Production and value addition	-	-	-	-	-	-	-	-	-	-	-
3.	Soil health and fertility management	-	-	-	-	-	-	-	-	-	-	-
4	Production of Inputs at site	-	-	-	-	-	-	-	-	-	-	-
5	Methods of protective cultivation	-	-	-	-	-	-	-	-	-	-	-
6	Others (pl. specify)	-	-	-	-	-	-	-	-	-	-	-
7	Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-	-
8	Farm machinery	-	-	-	-	-	-	-	-	-	-	-
8.a.	Farm machinery, tools and implements	1	20	-	20	-	-	-	20	-	20	20
8.b.	Others (rice mechanization )	1	18	2	20	-	-	-	18	2	20	20
9.	Livestock and fisheries					-	-	-				
10	Livestock production and management					-	-	-				
10.e.	Others (Post harvest technology and fish processing)	1	-	34	34	-	-	-	-	34	34	34
11.	Home Science					-	-	-				
11.d.	Others (“Gender sensitization”)	1	18	2	20	-	-	-	18	2	20	20
12	Agricultural Extension					-	-	-				
	Total	4	56	38	94	-	-	-	56	38	94	94

**Details of sponsoring agencies involved**

1. Department of Agricultural Engineering, Nagapattinam
2. GOI through Directorate of Extension Education, TNAU, Coimbatore
3. Central Institute of Fisheries Technology (CIFT), Cochin

7.H. Details of vocational training programmes carried out by KVKs for rural youth

NIL

**PART VIII – EXTENSION ACTIVITIES**

**Extension Programmes (including activities of 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	9	145	23	168	-	-	-	5	-	-
Exhibition	3	850	515	1365	-	-	-	15	7	22
Method Demonstrations	15	637	235	872	-	-	-	-	-	-
Farmers Seminar	3	150	-	150	-	-	-	-	-	-
Lectures delivered as resource persons	15	550	65	615	-	-	-	-	-	-
Newspaper coverage	63	-	-	-	-	-	-	-	-	-
Radio talks	20	-	-	-	-	-	-	-	-	-
TV talks	5	-	-	-	-	-	-	-	-	-
Popular articles	4	-	-	-	-	-	-	-	-	-
Extension Literature	9	-	-	-	-	-	-	-	-	-
Advisory Services	129	-	-	654	-	-	-	-	-	17
Scientific visit to farmers field	110									
Diagnostic visits	84	75	9	84						
Exposure visits	4	172	28	200				2		2
Any Other (Specify) News letter	2									
<b>Total</b>	<b>367</b>	<b>247</b>	<b>37</b>	<b>938</b>				<b>22</b>	<b>7</b>	<b>41</b>

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

9. A. Production of seeds by the KVKs - **NIL**

**9.B. Production of planting materials by the KVKs - NIL**

9. C. Production of Bio-Products – **Azolla- 1000 kg**

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

**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.)

<b>Name</b>	:	<b>Uzhavan</b>
Date of start	:	Oct – Dec 2007
Periodicity	:	Quarterly
No. of copies distributed every quarter	:	100

(B) Literature developed/published

<b>Item</b>	<b>Title</b>	<b>Authors name</b>	<b>Number</b>
Research papers	Influence of organics for increased sugar recovery in sugarcane. IN: International conference on Food technology	Venkatakrishnan, D., K. Dhanasekaran, K. Sivakumar and R. Devanathan.	1
	Role of Humic acid and fertilizers on Nutrient uptake of rice.	Sivakumar, K and T. Dhamodaran	1
	<i>Per se</i> performance & heterosis of two hybrids of chillies for capsaicin & Oleoresin content in three different seasons	Malathi. G.,T. Dhamaodaran and D.Veeraragavathattham	1
	Seasonal influence of per re performance of 2 hybrids and their parents of chillies for growth & yield characlets	Malathi. G.,T. Dhamaodaran and D.Veeraragavathattham	1
	Effect of humic acid and fertilizers on growth and yield of rice.	Sivakumar. K., Dhamodaran. T, D. Venkatakrishnan and K. Dhanasekaran	1
	Effect of different organic manures on yield components of sugarcane.	Venkatakrishnan, D., S. Manimaran, K. Dhanasekaran, K. Sivakumar and S. Srinivasan	1
	<i>Per se</i> performance of twelve hybrids and their parents of chillies for yield contributing triats.	Malathi, D. D. Veeraragavathantham and T. Dhamodarn	1
	Preserving soil health and maximizing rice yield by integrated application of fertilizer and humic acid.	Sivakumar. K and T. Dhamodaran	1
Popular articles	Azolla as feed for turkey	T. Dhamaodaran, Sivakumar. K and V. Gnanabharathi	500
	Sea bass culture in fresh water	T. Dhamaodaran, R. Revathi and Sivakumar.	200
Extension literature	Newly released varieties and farm implements of TNAU	T. Dhamaodaran, V. Gnanabharathi and R.Vedharathinam	500
Others (books)	SRI technology & farm implements	Dr. K. Rangasamy, Dr. P.Dhananchezhiyan, Dr.J.John Gunasekar, Selvi. K.Rathi kanna, Dr.B.J. Pandiyan, Dr.M.V.Rengasamy	500
	Plant Biochemistry	Dr.V.Arunkumar, Dr.N.Senthil Kumar and Dr.K.Sivakumar	200
	Flora of Tropical Dry ever green forest	Dr.A.Bala, Dr. R.Revathi and Dr.M.G.Rao	100
<b>TOTAL</b>			

10. B. Details of Electronic Media Produced - **NIL**

- 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).**

### **Success Story I**

This is a success story of leading vegetable grower Thiru. Manikkavasagam, North Poigainallur village in Nagapattinam District. His success did not come overnight and is a result of continuous toiling in the field for the past three decades. He has completed his B.A. degree in Tamil literature in 1977. In the same year, a cyclone hit Nagapattinam coastal and entire cropping was washed away. Being a graduate, he entered into social services through Indian Red Cross Society as his father did not get any income from farming. He joined as village level coordinator and involved in disaster management during the occurrence of natural calamities and giving trainings related to agricultural activities to the farmers, farmwomen etc. After he gained one year experience as village level coordinator, he had promoted as District level coordinator for Greater Tanjore District and he continued there till 1984. Due to his family situation, he was not able to continue and he entered into Agriculture. Being his land is low lying, he cultivated only paddy crop till the year 2004 and in the same year, he came to know about newly established Krishi Vigyan Kendra at Sikkal.

He had contacted KVK and got the advices from the team of Scientists. As per the recommendations and instructions given by KVK scientists, he went for establishment of farm pond in his field. The excavated soil was used to raise the field level for an area of 0.5 acre. He started cultivating vegetables in the elevated area. Apart from growing tomato, brinjal, chillies and bhendi, he has started to cultivate cole vegetables such as cabbage, knoll khol and French beans which were first time introduced in the district by KVK. With the help of KVK scientists, he has introduced modern technologies viz., introduction of hybrids, portray nursery seedling production, high density planting, precision farming techniques, integrated nutrient management and integrated plant protection measures. By adopting all the techniques, he produced quality produce at a higher quantity. His produces fetch comparatively higher price in leading vegetable market of Nagapattinam District (Paravai Vegetable market). His produce has a special demand in that market because of good keeping quality. Being a leading vegetable grower he showed interest in introducing these modern vegetable cultivation technologies to other farmers also.

The involvement and interest shown by him towards development fellow farmers, he was duly recognized by KVK and NABARD, facilitating him to start farmers club called **“Pasunthalir”** in 2007. As a token of appreciation, KVK recommended his name to MSSRF for awarding a fellowship. In the year 2009, MSSRF awarded a fellowship of the Academy for his invaluable service to the cause of spreading knowledge on modern technologies of agriculture. Today he is a well known vegetable grower in the State and frequently he is used as resource

person by line departments and number of NGOs. He also gives speeches on vegetable cultivation in AIR, DD and other private TV Channels. He is an asset to Nagapattinam District and KVK is proud for identifying and promoting him as a leading vegetable grower. The laurels obtained by him needs to be appreciated.

### **Success Story II**

S. Narayanasamy, S/o. Singaravelu, Sikkal is a 51 years old progressive farmer in the region today. He is a school drop out, worked in State seed farm from 1977 to 1985 as casual labour. Work experience in seed farm was a source of inspiration to take up arable farming. Hence, he took up farming in small level while working in seed farm. Once he found farming is quite interesting, he left the job and became full time farmer. His interest on mechanization grew simultaneously, as he could not manage labour effectively. But he did not know how to proceed with mechanization, as he was growing paddy and pulses in 2.5 acre of land. The fire of going for mechanization was still burning in him. To start with he had purchased one tractor in 1993 and paddy thresher in 1999, which was first introduced in the Sikkal area. Apart from using the machinery for own use, he slowly started renting out them and had the taste of getting higher income.

Establishment of Krishi Vigyan Kendra, Sikkal in the state seed farm, where he worked for quite some time turned out to be a boon for him. Out of curiosity, one day he visited KVK casually and to his surprise he got very good reception. He realized that this is a time to go for total mechanization of paddy cultivation with the help of KVK scientists. He purchased another tractor and power tiller in 2005, four row walking type rice planter in 2008, power sprayers (2 nos.) and battery sprayer in 2009, brush cutter in 2009, TNAU three row rice power weeder and single row weeder in 2010. He uses the machinery in his farm and hire out to other farmers. His source of income increased multifold and nearly 90% of investment on the capital was realized so far. Now he is proposed to buy a combine harvester in the ensuing season.

Due to mechanization he has saved 40% on cost of cultivation over traditional method which is nearly Rs. 7300/acre. In the year 2010-11 alone, an amount of Rs.1,10,000/- was realized by him through hiring of transplanter, sprayers, threshers and weeders. Now has become an ambassador of mechanization and due to his continuous persuasion two local farmers have bought rice transplanter this year. He is also promoting sales of axial flow paddy threshers and eight numbers of such threshers were sold by SSI industries, Coimbatore in Nagapattinam and Thiruvarur districts in 2010-11. The success of Mr. Narayanasamy needs proper recognition and well deserved appreciation for his contribution to mechanization.

### Success Story III

Mr. M. Sekar, S/O Muthu, Pattamangalam, Keelvelur has landholding of 9 acres wetland and has 15 years of experience in rice cultivation. He is a B.Sc. graduate working in Tamil Nadu Civil Supplies Corporation. He happened to attend the trainings conducted by Krishi Vigyan Kendra, Sikkal three years back on SRI cultivation that is how he had his first contact with KVK. Subsequently, he was trained on benefits of Azolla, mechanization and nutrient management in rice cultivation. He was further taken to various rice research stations of Tamil Nadu Agricultural University (TNAU) on exposure visit. He was much impressed and decided to take up the technologies of TNAU and ICAR. He showed much interest towards adopting the technologies. His adoptions of new and improved technologies were well monitored by KVK scientists.

His conviction in following the technologies has prompted KVK to give On Farm Trials (OFT), Adaptive Research Trials (ART) and Front Line Demonstration Trials (FLD) in paddy for the past two years. His income has increased upto Rs.22,500/acre in 2011, while he got only Rs.15,000/acre under conventional method of rice cultivation in 2009. Now he has become a progressive farmer in the village and farmers receive cropping advice from him. Hence, his social status and recognition among the farming community has improved tremendously which was a source of encouragement for his daughter to become an agriculture scientist. To fulfill her aim she has joined B.Sc. (Agri) in 2010 which was hailed by her parents and relatives.

### Success Story IV

**Shri. Balakrishnan, S/o. Sankaran** a progressive farmer of Karaiyiruppu a nearby village from KVK premises, who used to visit KVK very frequently to take advice on farm activities. He is a rice producer and was not able to generate good remuneration for all his efforts, all the firms fighting against floods, droughts and natural calamities, being this coastal district from the tail end of the cauvery delta net work. Rice is the prime crop since the soil is clayey with poor drainage and any cropping is only based on rice farming. Rice being a low remunerative crop he wanted to switch over to alternate cropping/farming system to generate more income and sustainability in production system.

Since water is a very scarce input during summer and kharif, he has excavated a farm pond (1.0 acre) for harvesting rain water with the assistance of the department of Agricultural Engineering. He has also raised a piece of low level (0.5 ac) with the excavated soil. He has been practicing dairy, fish farming besides rearing back yard poultry. He has approached the KVK to take advice on improving his farm and to generate more income. Accordingly KVK scientists have visited his farm and appropriate advises/solutions were offered from time to time.

He was suggested to go for high value crops like bhendi, chillies and tomato in the raised portion of his farm (0.5 ac.). He has also made a record yield from this bhendi crop. He has obtained Rs.60,000/- by sale of bhendi (price ranged from Rs.8/- to Rs.12/- per kg).

This crop was witnessed by 250 of farmers who have been motivated to go for hybrid vegetables. His field is being witnessed by farmers from various blocks and taking his advice. He is serving an excellent model in this district, not only in vegetables, but also in back yard poultry.

### **Success Story V**

**Tmt. R.Kasthuri** W/o.Mr. Ramadoss, Agni, Sirkali taluk of Nagapattinam District is a privileged and inventive woman keen on utilizing scientific information in crop production technologies. She used to actively participate in various training programmes conducted regularly at KVK, Sikkal. Apart from attending the training programme she also has the habit of watching Agricultural programmes in Doordhashan (Pothigai) channel, listening AIR, reading dailies and agriculture magazines.

#### **Reasons for establishment**

Started vegetable production to utilize resources effectively with some income generation, Self reliance, Social status and Perceived opinion

#### **Advantages due to vegetable production - perceived.**

Increased family income, improved social status and increased self satisfaction

#### **Constraints and Suggestions**

Non availability of quality seeds/ seedlings, fluctuation in production/yield depending upon the climatic condition, limited area and resource, price fluctuation and institutional support on market intelligence will greatly help in marketing the products at higher price thus increasing the profit margin.

#### **Case analysis**

The case illustrates that vegetable production by Tmt. Kasthuri has fetched considerable income from limited area and resource. An attitude characterized by a strong orientation towards scientific and systematic approach to achieve the objectives has enabled her to reap the benefits of the vegetable cultivation.

Further her full time involvement and commitment in vegetable as a main avocation and income generating activity, gave her the confidence for effective involvement of resources and time in listening/reading mass media, contacting KVK and TNAU scientists in acquiring knowledge about the improved vegetable production which proved to be the driving force for producing vegetables.



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

a.	The training Programmes, OFT and FLD are proposed based on the needs of the farming community
b.	All the training Programmes were announced well in advance through AIR, Karaikal and local dailies
c.	Method demonstrations are also arranged in the village based on the requirements
d.	Role of ICT on agriculture were explained in the villages
e.	Trainees are taken on exposure visit to the fields of successful farmers to create confidence and motivate them to start a new venture for becoming entrepreneur.
f.	In training programmes resource farmers are being hired to share their experience with trainees to build confidence about the technical feasibility and economic viability.
g.	The impact of TOT is documented by action oriented photographs, video film, writing of success stories and publishing in dailies and journals

**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	Rice	Cultivated 40 numbers of rice traditional varieties	To create awareness

**10.F. Indicate the specific training need analysis tools/methodology followed for**

- Group Discussion
- Group interaction
- Village visit
- Personal contact
- Grievance day meeting
- Monthly zonal workshop

**10. G. Field activities**

- Number of villages adopted
- No. of farm families selected
- No. of survey/PRA conducted

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

Status of establishment of Lab : SWTL established

Year of establishment : 2011 – 2012

**List of equipments purchased with amount...**

Sl. No	Name of the Equipment	Qty.	Cost
1	Digital Visible Spectrophotometer Model SL-207 "Elico" Make	1	39,104
2	Digital pH meter "Elico" Make	1	5,970
3	All Glass Single Distillation unit	1	36,400
4	Khan Shaker "Labline"	1	20,800
5	Hot air oven	1	17,680
6	Hot plate	1	7956
7	Willey mill	1	32,760
8	Water Bath	1	7,249
9	UP based Flame Photometer "Elico" Make	1	45,240
10	Digital conductivity meter "Elico" Make	1	11,326
11	Electronic Top loading balance "Cyberlab"	1	6760
12	Electronic Top loading balance "Shimadzu"	1	20,592
13	Water and Soil analysis kit	1	19,750
14	Digestion system (Kelplus)	1	1,12,216
15	Distillation system (Kelplus)	1	1,82,936
16	Instrument table	5	78,000
17	Rack,Almirah, Angle Iron rack	-	70,000
18	Soil and Plant storage cabin	-	1,00,000
19	Wash basin, sink and exhauster fan		70,000
20	Servo relay stabilizer – 2 Kva	1	7,500
21	Micropipette	2	3600
22	Buchner funnel with flask	1	2000
23	Titration unit	2	10,000
24	Vacuum pump	1	5000
25	HCL Computer with printer	1	37,600
Total		<b>28</b>	<b>9,50,439</b>

**Details of samples analyzed so far since establishment of SWTL:**

Nil

**Details of samples analyzed during the 2010-11**

Nil

**10. I. Technology Week celebration**

Period of observing Technology Week: From \_\_\_\_\_ to \_\_\_\_\_

Total number of farmers visited : \_\_\_\_\_

Total number of agencies involved : \_\_\_\_\_

Number of demonstrations visited by the farmers within KVK campus: **NIL**

**Other Details - NIL**

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

**A. Introduction of alternate crops/varieties**

<b>State</b>	<b>Crops/cultivars</b>	<b>Area (ha)</b>	<b>Number of beneficiaries</b>
Tamil nadu – Nagapattinam	Rice – CORH 3	10	10
Tamil nadu – Nagapattinam	Rice – Sub Swarna	5	5

**B. Major area coverage under alternate crops/varieties - NIL**

**C. Farmers-scientists interaction on livestock management - NIL**

**D. Animal health camps organized - NIL**

**E. Seed distribution in drought hit states- NIL**

**F. Large scale adoption of resource conservation technologies - NIL**

**G. Awareness campaign - NIL**

## **PART XI. IMPACT**

11.A. Impact of KVK activities (Not to be restricted for reporting period). - **NIL**

### **11.B. Cases of large scale adoption**

<b>Rice mechanization</b>	-	Tractor drawn cage wheel, rotavator, SRI weeders and combine harvester/ paddy threshers
<b>Popularizing CORH 3</b>		Popularized newly released rice hybrid
<b>Azolla</b>	-	Production technology and popularizing as a feed for animals, poultry and fish
<b>Hybrid vegetables introduction</b>	-	Chillies (Priyanka), Tomato (Lakshmi), Bhendi (My-11,12) Cabbage (Hari rani), Knolkhol (White Vienna), French beans (S-9), Pole beans (US2)
<b>High yielding rice varieties</b>	-	Popularized newly released high yielding rice varieties viz., CO(R)48, CO(R)-49, CO(R)-50

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

## **PART XII - LINKAGES**

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

<b>Name of organization</b>	<b>Nature of linkage</b>
State dept. of Agriculture	1.Joint training, extension programmes and implementations of Rashtriya Sam Vikas Yojana, 2.Giving technical support and infrastructural support during monthly zonal workshop.
Dept. of Horticulture	1.Joint training programmes 2.Offering need based technical guidance to the extension functionaries. 3. Pre kharif and rabi training programme 4. Field diagnostic visit 5. Flood / Drought assessment 6. yield performance assesment
NABARD	Organizing Farm Science Club and exposure visits.
Local, NGOs (DHAN, KUDUMBAM, CAP-TEEN, CREATE, CWS, CES, PCI,NCRC, MSSRF, RCPDS, PEDDA, VAANGHAI)	Organizing on/off campus training Programmes offering need based technical guidance.
ZPD, CRIDA, CIAE, IICPT, CIFT, DEE, SCMS, CPPS, CPBG, TRRI (Aduthurai), SWMRI (Thanjavur) Krishi Vigyan Kendra, (Needamangalam)	Technical consultancy and exchange of SMS during training programmes.
AIR (Trichy, Karaikal)	Offering radio programmes on latest crop production technologies and announcements.
NHM	To implement the precision farming
District Collectorate DRDA, Nagapattinam	To implement the waste land development scheme and land reforms counseling and grievance day meeting Organizing skill development training programme to rural youth SHGs. Organizing need based training programme and promoting agricultural entrepreneurship

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
IFS	2007	RSVY- Agriculture	15,00,000/-
NICRA	2010 – 11	CRIDA, HYD	30,35,000

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

a) Is ATMA implemented in your district Yes/ No

S. No.	Programme	Nature of linkage	Remarks
1.	District level planning, technology transfer and activities related with researchable issues	Member in the ATMA governing board and management committee	Collaborated in the district action plan preparation

Coordination activities between KVK and ATMA during 2010-11 - **NIL**

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 - **NIL**

12. G Kisan Mobile Advisory Services: -- - **NIL**

**PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK**

**13. A. Performance of demonstration units (other than instructional farm)**

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Low Cost Drip	2010	1.0	Vegetables	Vegetables	1	1000	5000	-
2	Azolla	2010	5 cents	Azolla	Azolla	1000	1250	2000	-
3	Kitchen garden drip kit	2010	5 cents	Vegetables	Vegetables	1	200	750	-
4	Nursery production under shade net	2010	10 cents	Vegetables , forest tree saplings and ornamental plants	Vegetables , forest tree saplings and ornamental plants	100	500	1250	-
5	Production of mealy bug parasitoids	2010	5 cents	Acerobagus	Parasitoids	30000	25000	Free of cost	-

**13.B. Performance of instructional farm (Crops) including seed production**

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
<b>Cereals</b>									
Paddy	20.8.10	22.9.10	1.4	CR 1009	Grain	2480 Kg	-	26040	-
Paddy	7.9.10	6.10.10	2.45	CO43	Grain	4500 Kg	-	48148	-
Paddy	7.9.10	15.10.10	2.4	CO50	Grain	4380 Kg	-	46864	-
<b>Oilseeds</b>									
<b>Vegetables</b>									
Brinjal	--	-	10 cents	Local - poiyr	-	26.5	-	265	-
<b>Others</b>									
(Azolla)	-	-	-	Rong Ping	Bio product	150 kg	-	300	-
Casurina seedlings	-	-	-	-	-	50 no	-	100	Limited supply
Protray	-	-	-	-	-	149 no	-	2235	-
Seedlings with tray	-	-	-	-	-	14 no	-	1050	-

**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	
1	Vermi compost	644 kg	Rs. 4/ kg	3220	-
2	Cocopeat	130 kg	Rs. 4/ kg	420	-

**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	
	Layer bird 21 nos.	Four way cross	egg	3395 no	-	8648	-

13.E. Utilization of hostel facilities- **NIL**13. F. Database management- **NIL**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	SBI	Nagapattinam	0879	Saving bank	10977883105		SBIN 0000879
With KVK RF	SBI	Nagapattinam	0879	Saving bank	10977894333		SBIN 0000879
RF – Seed production	SBI	Nagapattinam	0879	Saving bank	10977884325	MSBL 739	SBIN 0000879

14. B. Utilization of funds under FLD on Cotton (Rs. in Lakh) - NIL

**14. C. Utilization of KVK funds during the year 2010-11 (Rs. in lakh)**

S. No.	Particulars	Sanctioned	Released	Actual Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	4500000		7702494
2	Traveling allowances	100000		100712
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)	190000	5813000	485267
B	POL, repair of vehicles, tractor and equipments	150000		182867
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	100000		123597
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	65000		65000
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	200000		200000
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	68000		68000
G	Training of extension functionaries	10000		10000
H	Maintenance of buildings	25000		25000
I	Establishment of Soil, Plant & Water Testing Laboratory	400000		400000
J	Library	5000		5000
<b>TOTAL (A)</b>		<b>5813000</b>		<b>9367937</b>
<b>B. Non-Recurring Contingencies</b>				
1	Works	1700000		1700000
2	Equipments including SWTL & Furniture	1430000		1430000
3	Vehicle (Four wheeler/Two wheeler, please specify)	0		0
4	Library (Purchase of assets like books & journals)	10000		10000
<b>TOTAL (B)</b>		<b>3140000</b>		<b>3140000</b>
<b>C. REVOLVING FUND</b>		0		0
<b>GRAND TOTAL (A+B+C)</b>		<b>8953000</b>		<b>12507937</b>

**14. D. Status of revolving fund (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 2008 to March 2009	209456.18	621455	648430	182481.18
April 2009 to March 2010	182481.18	562853	665057	80277.18
April 2010 to March 2011	80277.18	318882	314333	84826.18

## 15. Details of HRD activities attended by KVK staff during 2010-11

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr.K.Sivakumar	Assistant Professor	International Conference on "Eliminating hunger and Poverty"	MSSRF, Chennai	7.8.2010 to 9.8.2010
Dr.G.Malathi	Assistant Professor	National Seminar on Production of Medicinal plants	HC&RI, TNAU, Coimbatore	24.09.2010 to 26.09.2010
Dr.J.John Gunasekar	Associate Professor	International conference on food supply and security	IICPT, Thanjavur	30.10.2010 to 31.10.2010
Dr. K. Sivakumar, Dr.G.Malathi	Assistant Professor	International Conference on Bio resource Technology its application and achievements	Nirmala College for women, Coimbatore	07.10.2010, 08.10.2010
Dr.T.Dhamodaran Dr.M.Joseph	Associate Professor Assistant Professor	Round up Ready flex cotton Technology	TNAU, Coimbatore	28.10.10
Dr.T.Elaiyabharathi,	Assistant Professor	Mealybug management	NBAII, Bangalore	30.10.2010
Dr.M.Joseph	Assistant Professor	Integrated Farming System for sustainable farming	KVK, Kattupakkam	10 – 12.11.2010
Dr.M.Joseph	Assistant Professor	On Alternative Poultry farming as a livelihood option for farming community	KVK, Namakkal	24 – 26.11.2010
Dr.G.Malathi	Assistant Professor	Plant diversity for Aesthetic values and landscape gardening	HC&RI, Coimbatore	26-28.11.2010
Dr. K. Sivakumar	Assistant Professor	Southern region STCR training cum seminar	Dept. of SS&AC, TNAU, Coimbatore	15.12.10 to 16.12.10
Dr.T.Dhamodaran	Associate Professor	5 <sup>th</sup> National Conference on KVK 2010	Maharana Pratap University of Agriculture and Technology, Udaipur	22.12.10 to 24.12.10
Dr. G. Malathi	Assistant Professor	Strengthening Gender perspective in agricultural research and development	TANUVAS, Madhavaram, Chennai	24.01.2011 to 25.01.2011
Mr. V. Gnanabharathi	Programme Assistant	Communication skill	SWMRI, Thanjavur	15.2.2011
Dr. G. Malathi	Assistant Professor	Protection of plant varieties and farmers right act	TRRI, Aduthurai	15.3.11
Dr. T. Elaiyabharathi	Assistant Professor	IPDM in major crops	Office of the DEE, TNAU, Coimbatore	25.03.2011 & 26.3.2011
Dr. G. Malathi	Assistant Professor	Protected cultivation of horticultural crops	Office of the DEE, TNAU, Coimbatore	28.3.2011 to 29.3.2011
Dr. M. Joseph	Assistant Professor	'Weather based Advisory Services'	Office of the DEE, TNAU, Coimbatore	30 -31.3.2011

16. Please include any other important and relevant information which has not been reflected above

NIL



# SUMMARY FOR 2010-11

## I. TECHNOLOGY ASSESSMENT

### Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Varietal Evaluation	1	Evaluation of submergence tolerance rice varieties for samba season	5
Integrated Disease Management	1	Management of False Smut disease in Samba paddy	5
Farm Machineries	1	Evaluation of different weeders in SRI	5
Integrated Farming System	1	Evaluation of polyculture in inland fisheries in Delta region	5
<b>Total</b>			

### Summary of technologies assessed under livestock

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials
Nutrition Management	Dairy	Area Specific Mineral Mixture for Dairy cows	10
<b>Total</b>			

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

Thematic areas	Crop	Name of the technology refined	No. of trials
Integrated Crop Management	1	Integrated algal management in rice eco system	5
Total	1	-	5

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

### Cotton

Frontline demonstration on cotton - Nil



**Livestock**

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Poultry	Popularization	Popularization of low cost poultry egg incubator		5				--										
	Improving livelihood of farmers	Promotion of Backyard poultry to improve the livelihood of farm women		10				-										
<b>Total</b>																		

**Fisheries**

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Common carps	Popularization	Scientific composite fish culture		5	5		5				1.0	2.5	1.50	2.05	1.0	1.50	0.5	2.05
<b>Total</b>																		

**Other enterprises—NIL****Women empowerment —NIL****Farm implements and machinery —NIL , Other enterprises – NIL , Demonstration details on crop hybrids —NIL**

#### IV. Training Programme (2010-2011)\*

Sl.No	Discipline	No. of trainings	No. of beneficiaries
1	Crop production and protection	25	919
2	Horticulture	10	334
3	Soil fertility and Management	2	50
4	Organic farming	8	219
5	Agricultural Engineering	20	531
6	Home science	7	295
7	Forestry	4	128
8	Fisheries	3	136
9	Others	2	170
	<b>Total</b>	<b>80</b>	<b>2632</b>

\* For farmers, farm women, rural youth, extension staff, SHG including sponsored

#### Details of sponsoring agencies involved

1. Department of Agricultural Engineering, Nagapattinam
2. GOI through Directorate of Extension Education, TNAU, Coimbatore
3. Central Institute of Fisheries Technology (CIFT), Cochin
4. NABARD
5. Department of Agriculture, Nagapattinam
6. NGOs like CIKS, PASUMAI

#### V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	129	654	17	671
Diagnostic visits	89	84	5	89
Field Day	9	168	5	173
Exhibition	3	1365	22	1387
Scientists' visit to farmers field	110	-	-	-
Farmers' seminar/workshop	3	150	-	150
Method Demonstrations	15	872	-	872
Exposure visits	4	200	2	202
<b>Total</b>	<b>362</b>	<b>3493</b>	<b>51</b>	<b>3544</b>

#### Details of other extension programmes

Particulars	Number
Electronic Media	0
Extension Literature	9

News Letter	2
News paper coverage	63
Technical Articles	27
Technical Bulletins	3
Technical Reports	0
Radio Talks	20
TV Talks	5
Animal health amps (Number of animals treated)	0
Others (pl.specify)	0
<b>Total</b>	<b>129</b>

## VI. PRODUCTION OF SEED/PLANTING MATERIAL

Production of seeds by the KVKs —NIL

Production of Bio-Products —Azolla 1000 kg

Production of livestock and related enterprise materials — NIL

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2010-11— NIL

VIII. SCIENTIFIC ADVISORY COMMITTEE —NIL

## IX. NEWSLETTER

Number of issues of newsletter published : Two

## X. RESEARCH PAPER PUBLISHED

Number of research paper published

### Book

- ❖ SRI technology & farm implements - Dr. K. Rangasamy, Dr. P.Dhananchezhiyan, Dr.J.John Gunasekar, Selvi. K.Rathi kanna, Dr.B.J. Pandiyan, Dr.M.V.Rengasamy
- ❖ Plant Biochemistry - Dr.V.Arunkumar, Dr.N.Senthil Kumar and Dr.K.Sivakumar
- ❖ Flora of Tropical Dry ever green forest - Dr.A.Bala, Dr. R.Revathi and Dr.M.G.Rao

### Book Chapter:

- ❖ Sivakumar,K., K. Dhanasekaran, S.Srinivasan and D.Venkatakrisnan. 2011. Effect of Humic acid and fertilizers on yield of Rice and soil available micronutrient status. IN: proceedings of the National Seminar on crop Improvement strategies for sustainable Agriculture. Pp 65-70.
- ❖ Dhanasekaran,K., K. Sivakumar, , R.Bhuvaneswari and S.Sathiamurthy. 2011. Effect of Humic acid and micronutrient mixture on the quality and yield of tomato. IN: proceedings of the National Seminar on crop Improvement strategies for sustainable Agriculture. Pp 1-7.

- ❖ Srinivasan.S., A.Angayarkanni, D.Venkatakrishnan, K.Sivakumar, and A.Anandan. 2011. Improvement of Grain yield of Rice under targeted yield model. IN: proceedings of the National Seminar on crop Improvement strategies for sustainable Agriculture. Pp 19- 22.
- ❖ Venkatakrishnan,D., Sivakumar,K., Mohandas.S, S.Srinivasan and K. Dhanasekaran. 2011. Influence of Zinc on Ca,Mg, Zn and Cu uptake of tomato. IN: proceedings of the National Seminar on crop Improvement strategies for sustainable Agriculture. Pp 61-63.

### **Research articles:**

1. Venkatakrishnan, D., K. Dhanasekaran, K. Sivakumar and R. Devanathan. 2010. Influence of organics for increased sugar recovery in sugarcane. IN: International conference on Food technology, Ed. II (Infotech 2010) held at IICPT, Tanjore.
2. Sivakumar, K and T. Dhamodaran. 2011. Role of Humic acid and fertilizers on Nutrient uptake of rice. IN: proceedings of the International conference on Bioresource technology (ICBRT) held at Nirmala college of women, Coimbatore. Pp 207-2013.
3. Malathi. G.,T. Dhamaodaran and D.Veeraragavathattham. 2011. *Per se* performance & heterosis of two hybrids of chillies for capsaicin & Oleoresin content in three different seasons in ICBRT
4. Malathi. G.,T. Dhamaodaran and D.Veeraragavathattham. 2011. Seasonal influence of *per se* performance of 2 hybrids and their parents of chillies for growth & yield characters in ICBRT
5. Sivakumar. K., Dhamodaran. T, D. Venkatakrishnan and K. Dhanasekaran. 2011. Effect of humic acid and fertilizers on growth and yield of rice.
6. Venkatakrishnan, D., S. Manimaran, K. Dhanasekaran, K. Sivakumar and S. Srinivasan. Effect of different organic manures on yield components of sugarcane.
7. Malathi, D. D. Veeraragavathantham and T. Dhamodarn. 2011. *Per se* performance of twelve hybrids and their parents of chillies for yield contributing traits.
8. Sivakumar. K and T. Dhamodaran. D. 2011. Preserving soil health and maximizing rice yield by integrated application of fertilizer and humic acid. IN : National seminar on soil health improvement for enhancing crop productivity held at TNAU, Coimbatore during 17-18.3.2011.

**Booklet**

- ❖ Role of microbes for sustainable agriculture - Dr.K.C.Gouthaman, Dr.T.Elaiya bharathi and Dr.John Gunasekar

**Popular**

- ❖ Role of humic acid and fertilizer on nutrient uptake of rice' at ICBRT, Coimbatore.
- ❖ Dhaniya keerai in "Nilavalam", September 2010 (Page No. 16 to 18)

**Abstract in Seminar:**

1. Venkatakrishnan. D., R.Devanathan, M.Ravichandran, K.Sivakumar, K.Dhanasekaran and S. Srinivasan. 2010. Effect of different organic manures on Post harvest NPK status in Sugarcane grown soil .New challenges and opportunities in soil organic matters Research held on 26<sup>th</sup> February 2010 at Department of Soil Science & Agricultural Chemistry faculty of Agricultural Annamalai University.
2. Sivakumar.K. and T.Dhamodaran 2010 Role of humic acid and fertilizers on nutrient uptake of Rice. In : International Conference on Bio resource Technology –its applications and achievements held at Nirmala College for women, Coimbatore on 7-8, October 2010.
3. Malathi.G., T.Dhamodaran and D.Veeraragavathatham 2010 Seasonal influence on Per se performance of two hybrids and their parents of chillies (capsicum annum) for growth and yield contributing characters In : International Conference on Bio resource Technology –its applications and achievements held at Nirmala College for women, Coimbatore on 7-8, October 2010.
4. Malathi.G., T.Dhamodaran and D.Veeraragavathatham 2010 Per se performance and heterosis of two F1 hybrids of chillies for Capsaicin and Oleoresin content in three different season. In : International Conference on Bio resource Technology –its applications and achievements held at Nirmala College for women, Coimbatore on 7-8, October 2010.
5. Malathi.G., T.Dhamodaran and D.Veeraragavathatham 2010. Capsicum genetic diversity in colour extraction & landscape gardening. International Conference on Bio resource Technology –its applications and achievements held at Nirmala College for women, Coimbatore on 7-8, October 2010.

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

NIL

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