



# **ANNUAL REPORT 2010-11**

(FOR THE PERIOD APRIL 2010 TO MARCH 2011)

KRISHI VIGYAN KENDRA TAMIL NADU AGRICULTURAL UNIVERSITY VRIDDHACHALAM, CUDDALORE DISTRICT TAMIL NADU

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

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

KV/K Address	Telephone		E mail	Web Address
NVN Address	Office	Fax	Linan	Web Address
Krishi Vigyan Kendra Vriddhachalam-606 001 Cuddalore District Tamil Nadu	04143- 238353	04143- 238353	<u>kvkvri@tnau.ac.in</u>	www.tnau.ac.in

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

Addross	Telephone		E mail	Web Address	
Address	Office	Fax		Web Address	
Tamil Nadu Agricultural University	0422- 2431222	0422 - 2431672	registrar@tnau.ac.in	www.tnau.ac.in	
Lawley Road (Post Office)					
Coimbatore - 641 003 Tamil Nadu.					

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

Name	Telephone / Contact			
	Residence	Mobile	Email	
Dr. K. Subrahmaniyan	04143-238896	9791636600	kvkvri@tnau.ac.in	

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

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

SI. 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.K. Subrahmaniyan	Programme coordinator	М	Agronomy	Ph. D	37400-67000-9000 (GP)	52250	16.04.2010	Permanent	OBC
2	SMS	Dr.S.Kannan	Subject Matter Specialist	М	Home Science	Ph. D	15600-39100- 7000(GP)	29080	06.08.2009	Permanent	SC
3	SMS	Dr.M.Raju	Subject Matter Specialist	М	Agronomy	Ph. D	15600-39100- 7000(GP)	29080	09.05.2008	Permanent	SC
4	SMS	Dr.P.Arutchenthil	Subject Matter Specialist	М	Plant Breeding	Ph. D	15600-39100- 6000(GP)	29830	17.07.2010	Permanent	OBC
5	SMS	Dr.S.Haripriya	Subject Matter Specialist	F	Horticulture	Ph. D	15600-39100- 6000(GP)	25600	30.12.2009	Permanent	SC
6	SMS	Dr.V.Dhanushkodi	Subject Matter Specialist	F	Soil Science	Ph. D	15600-39100- 6000(GP)	25600	31.12.2009	Permanent	ST
7	SMS	Dr.V.Vijaya geetha	Subject Matter Specialist	F	Seed Technology	Ph. D	15600-39100- 6000(GP)	25600	08.01.2010	Permanent	OBC
8	Programme Assistant ( Lab Tech.)/T-4	Mrs.G.Meenalakshmi	Programme Assistant( Lab Tech.)/T-4	F	-	M.Sc.	9300-34800-4400 (GP)	13700	28.02.2011	Permanent	SC
9	Programme Assistant (Computer)/ T-4	Mrs.A.Vijayalakshmi	Programme Assistant (Computer)/ T-4	F	-	B.Sc.	9300-34800-4400 (GP)	15530	04.12.2008	Permanent	OBC
10	Programme Assistant/ Farm Manager	Mr.R.Rajeshkannan	Farm Manager	М	-	M.Sc.	9300-34800-4400 (GP)	16000	13.08.2010	Permanent	OBC
11	Assistant	Th. P. Mohandas	Superintendent cum Accountant	М	-	B.Sc	9300-34800- 4000 (GP)	18910	14.09.2009	Permanent	SC
12	Jr. Stenographer	Mrs. T. Suganthi Rani	Assistant	F	-	HSc	5200-20200- 2000 (GP)	12920	01.1220.08	Permanent	SC
13	Driver	Th. C. Jayabal	Driver	М	-	XI	9300-34800- 4000 (GP)	9420	28.11.1986	Permanent	OBC
14	Driver	Th.S.Arul	Driver cum Mechanic	М	-	X	3200-20200- 2000(GP)	9570	21.02.2007	Permanent	OBC
15	Supporting staff	Th. T. Subramanian	Office Assistant	М	-	BA	4800-10000- 1650(GP)	6100	08.08.1988	Permanent	OBC
16	Supporting staff	Th. A. Daivasigamani	Office Assistant	М	-	XII	4800-10000- 1300(GP)	6100	27.01.2011	Probationer	MBC

## 1.6. Total land with KVK (in 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:

## A) Buildings

	Name of building	Source	Stage						
S.		Of funding		•	Incomplete				
No.		Tunung	Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction	
1.	Administrative Building	ICAR	1989	309.45	5,00,000	-	-	-	
2.	Farmers Hostel	ICAR	1998	236.83	2,05,000	-	-	-	
3.	Staff Quarters								
	1	ICAR	1991	102.02	4,92,000	-	-	-	
	2	ICAR	1991	102.02	4,92,000				
4.	Demonstration Units								
	1	ICAR	2005	243.00	2,06,000	-	-	-	
5	Fencing	-	-	-	-	-	-	-	
6	Rain Water harvesting system	-	-	-	-	-	-	-	
7	Threshing floor	-	-	-	-	-	-	-	
8	Farm godown	-	-	-	-	-	-	-	
9	Jeep shed	ICAR	1995	47.00	58,000	-	-	-	
10	Seminar hall	ICAR	1996	224.32	12,00,000	-	-	-	

## 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	Running
Mahindra Jeep (TN 31 L 7571)	2004	4,48,196	1,22,010	Running
Tractor – MF 1035 (TN 45 A 5582)	1991	1,43,400	4493	Running
Motor cycle-Hero Honda (TN 31V 4421)	2009	48,255	9809	Running
Tractor - (New)	2011	4,87,500	5 hrs	Running

## C) Equipments & AV aids

Nature of equipment	Year of purchase	Cost (Rs.)	Present status
Sound projector (16mm)	1986	8,750	To be condemned
Philips radio recorder	1986	1,495	To be condemned
Pentax camera	1988	7,572	To be condemned
Colour TV	1995	17,650	To be condemned
VCR	1995	19,500	To be condemned
Mike system	2002	5,250	Condemned
Over head projector	2004	25,488	Good
Slide projector	2004	14,588	Good
Digital camera	2005	19,900	Good
LCD projector with accessories	2006	1,00,000	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 2010-11

SI.N o.	Date	Number of Particip ants	No. of absent ees	Salient Recommendations	Action taken
1.	27.09 .10	22	-	Field day should be organized in the OFT Transplanted redgram	Field day was conducted on 10.11.2010. During the field day 40 extension functionaries and about 50 farmers participated and interacted with the scientists about the technology.
				Carp farming in village community ponds may be encouraged	The training programme was organized on the importance of carp farming on 12.01.2011 where 30 farmers participated and interacted with the scientists. FLD has been conducted in 10 locations viz., Puliyur (2), Mettuseri (2), Pavazhankudi (2), Puliyur colony (2), Velankattur (2) in Vridhchalam block.
				Farmers may be sensitized to attend the training on value added fish products	The training was organized in collaboration with central Institute of fisheries technology, Cochin on 20.12.2010 - 21.12.2010 for 30 farmers comprising of 18 men and 12 women. The trainees of the programme started small scale production unit at Pudukooraipettai for the preparation of prawn pickles.
				Popularization of quality seeds of new varieties in oilseeds and pulses	FLD was conducted with the recently released variety blackgram CO (Bg) 6 and redgram CO (Rg) 7 at 5 locations. Action is being taken for the horizontal spread of the varieties through FLD farmers.
				Trainings may be given on Farm mechanization and SSI in	Training of farm mechanization in sugarcane was conducted on 31.01.2011. About 45 progressive

		sugarcane	farmers and 10 extension functionaries from sugar factory were participated. The demonstration was organized on sugarcane planter at Kuppanatham village. The trainees were impressed with the planting techniques of sugarcane.
		Baby corn seeds may be multiplied and distributed	Action is being taken
		Training may be given on the maintenance of drip irrigation system	The training on plasticulture and drip fertigation was organized in collaboration with SWC, AEC & RI, TNAU, and Coimbatore. About 50 framers have participated. During the training programme, installation of drip systems and acid treatment for drippers were also demonstrated. Training was also given under precision farming for about 1200 farmers of precision farming beneficiaries of horticulture and agriculture in Cuddalore District.
		Trainings may be given on goat, sheep and poultry rearing and management	Action is being taken.
		Popularization of black gram new variety CO 6	Conducted FLD on popularisation of blackgram Co (Bg) 6 at 5 locations. Field day was organised at Thoravallur village on 25.01.2011 to create awareness about the performance of the variety to the farmers of the same and neighbouring villages.
		Training may be given on post harvest technologies to Self help groups	The training on post harvest technologies for cashew apple and mango were given to the Self help groups on 08.07.2010 and 32 farm women were benefitted.
		Training may be given to interested farmers on pest and disease management and value addition in banana at NBRC, Trichy.	Action is being taken. Discussed with NBRC, Trichy and the training programme will be organized during July 2011.
		Arrange for exposure visit and training on white silk worm rearing	Action is being taken.
		Popularization of SRI (Rajarajan 1000 technology) Power weeder in paddy field	Demonstration of power weeder in SRI (Rajarajan 1000 technology) was conducted on 14.10.2010. About 40 progressive farmers were participated and interacted with the scientists. They felt that the power weeder is more suitable and an alternate to conoweeder. It also saves time and labour compared to conoweeder.
		Training may be given on composting technologies for water hyacinth	Training on composting technology will be given during the month of July 2011

#### PART II - DETAILS OF DISTRICT

#### 2. Geographical location of the District

The district of Cuddalore lies on the East Coast of TamilNadu. It is bounded on the north by Villupuram district, on the south by Nagapattinam district, on the west by Perambalur and Villupuram and on the east by Bay of Bengal. Headquarter of this district is Cuddalore. The southern boundary follows for the greater part of its length the course of two rivers - the Vellar and the Coleroon. The district lies between 78<sup>0</sup> 42' and 80<sup>0</sup> 12' east latitude and 12<sup>0</sup> 27' 30" and 11<sup>0</sup> 10' 45" north longitude. Great part of it is covered Archean Rock of the gneiss family, resting on the three great groups of sedimentary rocks belonging to different geological periods and overlying each other in regular succession from the coast on the east. The hills on the west. The most part of the district is a flat plain slopping very gently to the sea on the east. The hills are only on the southwestern border. Mount Capper plateau or the Red hills run parallel to the sea with an elevation of not more than 20 meters above M.S.L., forming part of red lateritic "Cuddalore Sand Stones" running between Marakkanam in Kumalampattu South south westwards to near Srimushnam. The total geographical area of the district is about 3633.04 sq.km with coastal line of 68 kms.

S. No	Farming system/enterprise			
1	Irrigated agricultural systems			
2	2 Rainfed agricultural systems			
3	Animal Husbandry -Dairy, Poultry			
4	Sericulture			
5	Fisheries			
6	Cashew Processing unit, Nurseries			

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

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

S. No	Agro-climatic Zone	Characteristics
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

AES	Agro ecological situation	Characteristics
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

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

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
Field crops				
1	1 Rice		5.432	4915
2	2 Sorghum		0.008	382
3	Cumbu	5327	0.066	1243
4 Ragi		1019	0.022	2150
5 Maize		1769	0.042	2352
6. Varagu		1034	0.021	1890
Pulses				
1	Redgram	1385	0.007	512
2	Blackgram	42076	0.159	378
3	Greengram	4423	0.014	319
4	Other pulses	827	0.003	429
Oilseeds				
1	Groundnut	34848	0.903	2592
2	Gingelly	8599	0.035	410
3	Sunflower	382	0.005	1212
4	Castor	172	0.001	585
Cash crop				
1	Cotton	1299	0.004	305
2	Sugarcane	34744	4.586	132 (t /ha)

District statistics: Assistant Director of Statistics, Cuddalore district, Tamil Nadu

## Table 6. b. Horticultural crops

S.No.	Crops	Area (ha)	Production (t)	Productivity (t/ha)
Fruits/pl	antation crops			
1	Cashew nut	28497	22157	0.78
2	Banana	3756	93525	24.90
3	Jack	529	5111	9.66
4	Guava	499	3504	7.02
5	Mango	571	2372	4.15
Vegetab	les/spices			
1	Brinjal	296	3309	11.18
2	Chillies	149	79	0.53
3	Bhendi	78	546	7.00
4	Tapioca	5168	177563	34.36
5	Snakegourd	181	2715	15.00
6	Moringa	69	3450	50.00
7	Bittergourd	57	684	12.00
8	Lablab	31	403	13.00
9	Coriander	5996	2421	0.40
Flowers				
1	Rose	31	225	7.25
2	Jasmine-Gundumalli	139	1077	7.75
3	Jasmine-Mullai	319	2712	8.50
4	Crossandra	82	164	2.00

#### 2.5. Weather data

Month	Rainfall (mm)	Tempe	rature ( <sup>0</sup> C)	Mean Relative
		Maximum	Minimum	Humidity (%)
January	33.6	31.0	18.3	85.7
February	0.0	33.4	19.4	83.5
March	0.0	36.9	22.4	77.6
April	0.0	39.5	24.5	64.2
Мау	21.0	39.7	26.1	69.8
June	33.8	38.4	25.5	71.6
July	48.4	36.8	24.7	75.3
August	147.6	35.5	23.7	79.7
September	181.6	35.4	23.6	74.0
October	168.8	38.9	23.1	73.3
November	654.9	30.5	18.5	76.2
December	296.5	30.4	18.3	82.7
Total/Mean	1586.2	35.5	22.3	76.1

Source: Regional Research Station, Vridddhachalam, Cuddalore district, Tamil Nadu

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

Category	Population	Production	Productivity
Cattle	3,81,538	-	-
Crossbred	-	-	-
Indigenous	-	-	-
Buffalo	79,242	-	-
Sheep	57,607	-	-
Crossbred	-	-	-
Indigenous	-	-	-
Goats	2,51,160	-	-
Pigs	25,137	-	-
Crossbred	-	-	-
Indigenous	-	-	-
Rabbits	-	-	-
Poultry	3,33,043	-	-
Hens	-	-	-
Desi	-	-	-
Improved	-	-	-
Ducks	-	-	-
Turkey and others	-	-	-

District statistics: Assistant Director of Statistics, Cuddalore district, Tamil Nadu

Category	Area	Production	Productivity
Fish	-	5823 MT	-
Marine	-	18000 MT	-
Inland	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

\* Please provide latest data from authorized sources. Please quote the source

2.7 District profile has been prepared and submitted Yes / No: Yes

## 2.8 Details of Operational area / Villages

SI. No.	Taluk	Blocks / groups of villages	Major crops and enterprises being practiced	Major problems identified	Identified thrust areas
1.	Vriddhachalam	Vriddhachalam Kammapuram Nallur Panrutti Cuddalore Annagiramam Kurinjipadi	Crop: Groundnut, sesame, cashew, rice, sugarcane, pulses, vegetables and tapioca. Livestock: Dairy animals and goat rearing. Other enterprises: Tractor and power tiller EDP products Mushroom production Agroforestry Vegetative propagation of horticultural crops.	<ul> <li>Groundnut:</li> <li>Inadequate plant population</li> <li>Yield loss due to Spodoptera, Leaf minor</li> <li>Incidence of root rot, stem rot, LLS &amp; rust</li> <li>Labour shortage during peak season</li> <li>Low soil fertility</li> <li>Poor pod setting</li> <li>Sesame:</li> <li>Use of local varieties</li> <li>Inadequate nutrient application</li> <li>Incidence of pod borer</li> <li>More incidence of wilt</li> <li>Sugarcane:</li> <li>ESB, INB &amp; Woolly aphids incidence</li> <li>More labour cost for detrashing</li> <li>Imbalanced nutrient application</li> <li>Improper water management</li> <li>Rice:</li> <li>Higher seed rate</li> <li>Weeds problem at initial stage</li> <li>More incidence of leaf folder &amp; stem borer Imbalance nutrient usage</li> <li>Incidence of leaf streak, blast and grain discoloration</li> <li>Pulses:</li> <li>Inadequate knowledge on seed treatment</li> <li>Improper nutrient management</li> <li>Incidence of Pod borer &amp; YMV</li> <li>Other enterprises</li> <li>Non availability of green fodder</li> </ul>	<ul> <li>Introduction of improved varieties</li> <li>Integrated crop management practices</li> <li>INM technologies</li> <li>Quality seedling production</li> <li>Popularization of farm mechanization</li> <li>Management practices for dairy animals</li> <li>Generating self employment</li> <li>Value addition of agrl. / horti produce</li> </ul>

				Non adoption of deworming in calf	
				Unemployment during off season	
				Lack of awareness on value addition	
				Lack of knowledge in farm mechanization	
2.	Thittakudi	Thittakudi Mangalore Pennadam	Crop: Rice, sunflower, maize, vegetables, cotton, kodomillet, coriander and sugarcane. Livestock: Dairy animal and sheep rearing Other enterprises: Mushroom Apiary EDP products Agroforestry Farm mechanization	<ul> <li>Sunflower: (Rainfed)</li> <li>Poor plant stand</li> <li>III filling</li> <li>Head rot, LR virus and <i>Helicoverpa</i> incidence</li> <li>Maize: (Rainfed)</li> <li>Traditional method of sowing</li> <li>Inadequate plant population</li> <li>Improper nutrient management</li> <li>Poor management of weed, pest &amp; disease</li> <li>Kodomillet:</li> <li>Use of local varieties</li> <li>Inadequate plant population</li> <li>No manuring</li> <li>Poor crop management</li> <li>Cotton: (Rainfed)</li> <li>Weeds problem in initial stage</li> <li>Flower drop</li> <li>Magnesium deficiency</li> <li>No earthing up</li> <li>Poor sand preparation</li> <li>Use of higher dose of pesticides</li> <li>Sugarcane:</li> <li>Higher incidence of INB and woolly aphids</li> <li>Improper water management</li> <li>No de-trashing</li> <li>Burning of harvested trash due to labour shortage</li> <li>Other enterprises</li> <li>Lack of knowledge on farm mechanization</li> <li>Unawareness on apiculture</li> </ul>	<ul> <li>Introduction of newly released hybrids / varieties / Bt</li> <li>INM practice</li> <li>IPM technologies</li> <li>Introduction of alternate crop</li> <li>Popularizing of farm machineries</li> <li>Introduction of integrated farming system</li> <li>Feed management practices for animals</li> <li>ICM – Production technologies</li> </ul>

				Lack of knowledge on use of mineral mixture for dairy animals	
3.	Chidambaram	Chidambaram Keerapalayam Bhuvanagiri Kumarachi Kattumannargudi Parangipettai	Crops: Rice, pulses, groundnut and sesame Livestock: Fish culture Other enterprises: Mushroom production EDP products Agroforestry Vermicompost	<ul> <li>Rice:</li> <li>Higher weed population in direct sown rice</li> <li>Use of inadequate/higher seed rate</li> <li>Improper nutrient management</li> <li>Higher incidence of leaf folder &amp; stem borer</li> <li>More incidence of grain discolouration &amp; bacterial leaf steak</li> <li>Improper use of pesticide</li> <li>Broadcasting of paddy seeds in direct sown rice</li> <li>Pulses:</li> <li>Inadequate plant population &amp; low yield</li> <li>Repeated use of low yielding varieties in rice fallow</li> <li>Non availability of high yielding varieties suitable for rice fallow</li> <li>Improper nutrient management</li> <li>Incidence of pod borer &amp; powdery mildew</li> <li>Water stress during critical stages</li> <li>Agroforestry</li> <li>Poor growth and biomass in <i>Casuarina</i></li> <li>Local thorny bamboo variety produces low yield and and very difficult to maintain plantation.</li> <li>Poor maintenance at early stage</li> <li>Planting seed progenies of Eucalyptus results in poor growth and wood production.</li> <li>Livestock</li> <li>Non availability of green fodder</li> <li>Unawareness of mineral mixture usage &amp; animal</li> </ul>	<ul> <li>Introduction of newly released varieties</li> <li>SRI technique</li> <li>IPM</li> <li>Popularization of mechanization</li> <li>Seed treatment &amp; IPM practices in pulses</li> <li>Converting crop waste in to vermicompost</li> <li>Utilization of paddy straw for mushroom production</li> <li>Value addition of mushroom and pulses</li> <li>Cottage scale preparation of home care products</li> <li>Popularization of direct sowing with seed drill</li> </ul>

		hygiene	
		Other enterprises	
		<ul> <li>Unutilization of crop residues</li> </ul>	
		Unemployment during lean season	
		Unawareness of F & M disease preventive	
		measures	

#### 2.9 Priority thrust areas

#### S. No Thrust area

- 1 Introduction and popularization of high yielding varieties
- 2 Introduction of alternate cropping system and crop management practices
- 3 Integrated nutrient management for improving crop productivity and soil health
- 4 Establishment of nursery and improving the productivity of horticultural crops
- 5 Integrated pest and disease management
- 6 Farm mechanization for major oil seeds, cereals and horticultural crops
- 7 Improving the yield of milch animals, preventive measures for diseases & introduction of improved varieties in fodder crops
- 8 Self employment and entrepreneur development programmes
- 9 Processing, preservation and value addition
- 10 Production and supply of quality seed / seedling materials

## 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	Targets Achievement		Achievement	Targets	Achievement
8	8	64	64	12	12	100	100

	Trai	ning		Extension Programmes						
		3				4				
Numbe	r of Courses	Number	of Participants	Nu	umber of	Number of participants				
			-	Pro	grammes					
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement			
255	255	9027	9027	1316	1316 1316 54277 5427					

Seed	Production (Qtl.)	Planting materials (Nos.)						
	5	6						
Target	Achievement	Target	Achievement					
-	104 kg – Cashew nuts	-	Cashew grafts - 58100					
	10000 setts – Cumbu Napier Co(Cn) 4							

Livestock, poultry	v strains and fingerlings (No.)	Bio-products (Kg)					
	7	8					
Target	Achievement	Target	Achievement				
-	300 eggs (Rhodo white)	-	1500 kg (Vermicompost)				

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

S.	Thrust area	Crop/	Identified		Interventions									
Νο		Enterprise	Problem	Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (Extensio n personnel )	Extensio n activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestoc k (No.)	Suppl bio proc	y of ducts
1.	Drought management	Paddy	Low yield and poor quality	Assessment of New Rice variety ANNA-4 in Drought prone areas	-	2(40)	1(15)	1(40)	12	200 kg	-	-	No.	Kg
2.	Crop Improvement	Paddy	Non availability of hybrid seeds to farmers at right time	Production of hybrid rice CORH3 in farmer participatory approach	-	1(15)	1(15)	1(40)	7	50 kg	-	-	-	-
3.		Black gram	Low yield Use of local varieties Inadequate nutrients	Assessment of the performance of pulse wonder in Blackgram var Co (Rg) 6	-	44	33	38	8	40 kg	-	-	Pulse wond er	15
4.	Crop Improvement	Redgram	Low yield Poor quality seeds	Assessment of planting methods in Red gram Var Co (Rg) 7	-	1(45)	1(10)	(1)40	15	-	seedlings	-	-	-

5.	Crop protection	Groundnut	Non adoption of seed treatment Low yield	Management of stem rot in groundnut	-	52		32	6	-	-	-	Pseud omon as flurore scenc e Tricho derma viride	10
6.	Disease management in Flower crop	Tuberose	Reduced flower yield and plant mortality in tuberose	Nematode management in Tuberose.	-	-		-	-	-	-	-	Pseud omon as flurore scenc e	5
7.	Production of Quality planting material	Tapioca	Unawareness of the farmers pertaining to healthy mother plant selection and multiplication techniques in tapioca.	Testing efficacy of single budded tapioca setts	-	1(30)	-	1(85)	-	-	20,000 seedlings/ha	-	-	-
8.	Dairy farming	Dairy	Poor yield of milk	Area specific mineral mixture for dairy cows	-	30	10	-	-	-	-	-	-	200 kg min eral mix.
9.	Crop management	Paddy	Low yield	-	Popularizati on of paddy CO (R) H-3	45	40	40	10	100 kg				
10.	Crop management	Paddy	Low yield	-	Popularizati on of new paddy variety Co (R) - 50	35	35	45	10	100 kg				

11.	Crop management	Pulses	-	-	Popularizati on of drought mitigation technology in pulses	Under progress								
12.	Crop improvement	Brinjal	Fruit yield loss	-	Popularizati on of COBH2 Brinjal	1(5)	-	-	-	-	16,000 seedlings/ha	-	No.	K g
13.	Crop improvement	Snake gourd	Reduced fruit yield and lack of marketable produce preference	-	Popularizati on of Snake gourd Variety PLR(SG)2	1(50)	-	-	-	3 kg	-	-	-	
14.	Crop diversification	Fodder	-	-	Popularizati on of fodder bank at village level	-	-	-	-	5 kg	10,000 setts	-	-	-
15.	Crop production and management	Watermelo n	Fruit yield loss due to reduced number of hermaphrodite flowers in watermelon	-	Integrated crop managemen t practices in Watermelon	1(40)	-	-	-	-	15,000 seedlings/ha	-	-	-
16.	Crop improvement	cashew	Low yield and poor quality	-	Introduction of hybrid in cashew	35	15	-	-	-	400 seedlings	-	-	-
17.	Fish culture	Fish	Poor yield and quality	-	Popularizati on of Fish culture in village ponds	46	22	-	-	-	-	5000 fingerligs	-	-
28.	Poultry farming	Turkey	Poor yield	-	Popularizati on of Nanthanam turkey for backyard poultry	31	-	-	-	-	-	100 chicks	-	-

19.	Poultry farming	Rhodo white	Poor hatchability rate	-	Evaluation of hatchability of poultry eggs using low cost incubator	-	-	-	-	-	-	-	-	-
20.	Farm mechanisation	Sugarecan e	Labour scarcity	-	Total mechanizati on in sugarcane	1(40)	(1)30	(1)40	5	-	-	-	-	-

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

S.No	Title of Technology	Source of	Crop/enterprise	N	o.of pr	ogrammes	conducted
		technology		OFT	FLD	Training	Extension activities
1	2	3	4	5	6	7	8
1.	Assessment of New Rice variety ANNA-4 in Drought prone areas	TNAU, Coimbatore	Paddy	1		3	12
2.	Production of hybrid rice CORH 3 in farmers participatory approach	TNAU, Coimbatore	Paddy	1	-	2	5
3.	Assessment of the performance of pulse wonder in Blackgram	TNAU, Coimbatore	Blackgram	1	-	2	7
4.	Assessment of planting methods in redgram	UAS, Dharwad	Redgram	1	-	2	8
5.	Management of stem rot in groundnut	TNAU, Coimbatore	Groundnut	1	-	2	9
6.	Nematode management in Tuberose.	TNAU, Coimbatore	Tuberose	1	-	2	7
7.	Testing efficacy of single budded tapioca setts	TNAU, Coimbatore	Tapioca	1	-	2	6
8.	Area specific mineral mixture for dairy cows	TANUVAS, Chennai	Dairy	1	-	2	8
9.	Popularization of paddy CO (R) H-3	TNAU, Coimbatore	Paddy	-	1	3	10
10.	Popularization of new paddy variety Co (R) - 50	TNAU, Coimbatore	Paddy	-	1	3	10
11.	Popularization of drought mitigation technology in pulses	TNAU, Coimbatore	Pulses	-	1	3	7
12.	Popularization of COBH2 Brinjal	TNAU, Coimbatore	Brinjal	-	1	3	8
13.	Popularization of Snake gourd Variety PLR(SG)2	TNAU, Coimbatore	Snake gourd	-	1	3	6
14.	Popularization of fodder bank at village level	TNAU, Coimbatore	Fodder crops	-	1	3	7
15.	Integrated crop management practices in Watermelon	TNAU, Coimbatore	Watermelon	-	1	3	9
16.	Introduction of hybrid in cashew	TNAU, Coimbatore	Cashew	-	1	3	8

17.	Popularization of Fish culture in village ponds	TANUVAS, Chennai	Fish	-	1	3	7
18.	Popularization of Nanthanam turkey for backyard poultry	TANUVAS, Chennai	Turkey	-	1	3	9
19.	Evaluation of hatchability of poultry eggs using low cost incubator	TANUVAS, Chennai	Poultry	-	1	3	7
20.	Total mechanization in sugarcane	TNAU, Coimbatore	Sugarcane	-	1	3	8
		TOTAL		8	12	60	166

## 3.B2 contd..

	No. of farmers covered														
	O	FT			FL	D			Trai	ning		Ext	ension	activi	ties
Ger	neral	SC	/ST	Gen	eral	SC	/ST	Gen	eral	SC	/ST	Gen	neral	SC	/ST
М	F	М	F	М	F	М	F	М	F	М	F	М	F	М	F
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5	1	3	1	-	-	-	-	65	15	30	10	60	30	40	15
4	-	-	-	-	-	-	-	32	42	14	9	26	31	7	2
10	-	2	-	-	-		-	43	26	21	19	36	29	15	13
4	2	1	1	-	-	-	-	28	32	12	13	42	32	19	12
6	1	2	1	-	-	-	-	32	21	18	16	35	37	16	19
3	-	1	1	-	-	-	-	12	16	21	18	19	20	18	16
2	1	1	1	-	-	-	-	21	26	15	19	32	21	15	14
5	3	1	1	-	-	-	-	23	15	24	19	32	35	16	18
-	-	-	-	6	1	2	2	70	10	40	5	70	25	35	10
-		-	-	5	2	2	1	65	10	30	10	65	20	35	15
-	-	-	-	5	3	2	-	38	31	26	25	34	19	24	19
-		-	-	10	-	-	-	28	23	17	19	26	24	18	15
-	-	-	-	6	3	1	-	36	27	18	16	29	11	9	4
-		-	-	1	1	1	1	26	18	19	8	12	9	7	6
-	-	-	-	4	5	-	1	13	18	17	12	21	23	25	4
	-	-	-	2	3	4	1	20	25	19	16	13	17	12	8
-		-	-	2	4	3	1	34	36	28	27	23	15	17	16
_	-	-	_	3	4	2	1	28	27	16	42	19	23	24	12
_		-	_	2	-	1	2	18	19	17	12	34	21	15	19
-	-	-	-	2	1	2	-	26	24	28	21	15	34	46	12
				675	479	449	356	664	498	436	273				

## PART IV - On Farm Trial

## 4.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	Animal Husbandry	TOTAL
Integrated Nutrient Management	-	-	1	-	-	-	-	-	-	-	1
Varietal Evaluation	1	-									1
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	1	-	-	-	-	-	-	-	1
Integrated Disease Management	-	1	-	-	-	-	1	-	1	-	3
Small Scale Income Generation Enterprises	-	-	-	-	-	-	-	-	-	1	1
Weed Management	-	-	-	-	-	-	-	-	-	-	-
Resource Conservation Technology	-	-	-	-	-	-	-	-	-	-	-
Farm Machineries	-	-	-	-	-	-	-	-	-	-	-
Integrated Farming System	-	-	-	-	-	-	-	-	-	-	-
Seed / Plant production	1	-	-	-	-	-	-	-	-	-	1
Value addition	-	-	-	-	-	-	-	-	-	-	-
Drudgery Reduction	-	-	-	-	-	-	-	-	-	-	-
Storage Technique	-	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-	-
Total	2	1	2	-	-	-	1	-	1	1	8

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-
Feed and Fodder	1	-	-	-	-	1
Small Scale income generating enterprises	-	-	-	-	-	-
TOTAL	1	-	-	-	-	1

#### 4.A3. Abstract on the number of technologies assessed in respect of livestock enterprises

#### 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
Integrated Nutrient Management	Blackgram	Assessment of the performance of pulse wonder in pulses	10	10	2 ha
Varietal Evaluation	Paddy	Assessment of new rice variety ANNA 4 in drought prone areas	10	10	2 ha
	Paddy	Production of rice hybrid CORH 3 in farmers participatory approach	4	2	1 ha
Integrated Pest	Tuberose	Nematode management in tuberose	5	5	1 ha
Management	-	-	-	-	-
Integrated Crop Management	Redgram	Assessment of planting methods in redgram		8	2 ha
Integrated Disease	Groundnut	Management of stem rot in groundnut	10	10	2 ha
Management	-	-	-	-	-
Small Scale Income	-	-	-	-	-
Generation Enterprises	-	-	-	-	-
Weed management	-	-	-	-	-
	-	-	-	-	-

Resource Conservation	-	-	-	-	-
Technology	-	-	-	-	-
Farm Machineries	-	-	-	-	-
	-	-	-	-	-
Integrated Farming	-	-	-	-	-
System	-	-	-	-	-
Seed / Plant production	Tapioca	Testing the potential of portray raised single budded setts in tapioca	5	5	1 ha
	-	-	-	-	-
Value addition	-	-		-	-
	-	-		-	-
Drudgery Reduction	-	-	-	-	-
	-	-	-	-	-
Storage Technique	-	-	-	-	-
	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-
	-	-	-	-	-
Total	-	-	114	114	12 ha

## 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 Nutrient Management	-	-	-	-	-
integrated Nuthent Management	-	-	-	-	-
Varietal Evaluation	-	-	-	-	-
	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-
	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-
	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-
	-	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-	-
	-	-	-	-	-
Weed Management	-	-	-	-	-
	-	-	-	-	-
Resource Conservation Technology	-	-	-	-	-
	-	-	-	-	-
Farm Machineries	-	-	-	-	-
	-	-	-	-	-
Integrated Farming System	-	-	-	-	-

Seed / Plant production	-	-	-	-	-
	-	-	-	-	-
Seed / Plant production /alue addition Drudgery Reduction Storage Technique Mushroom cultivation	-	-	-	-	-
	-	-	-	-	-
Drudgery Reduction	-	-	-	-	-
	-	-	-	-	-
Storage Technique	-	-	-	-	-
	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-
	-	-	-	-	-
Total	-	-	-	-	-

## 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
Evaluation of breeds	-	-	-	-
Nutrition management	-	-	-	-
Disease management	-	-	-	-
Value addition	-	-	-	-
Production and management	-	-	-	-
Feed and fodder	Dairy	Area specific mineral mixture for dairy cows	10	10
Small scale income generating enterprises	-	-	-	-
Т	otal		10	10

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

## 4.C1. Results of Technologies Assessed - Results of On Farm Trial

4.01.	Assessment of New	Rice variety	ANNA-4 in	Drought prone	areas

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
Paddy	Rainfed	Low yield and poor quality	Assessment of New Rice variety ANNA-4 in Drought prone areas	10	Paddy ANNA-4 in Drought prone areas	Growth and yield attributes of paddy	No. of tillers/hill, yield and Economics	ANNA 4 performed better than local kar and rec. varieties	Farmers were highly impressed with the establishment and yield potential of the ANNA 4	-	-

Technology Assessed	Source of Technology	Production	t/ha,	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	2.85	t/ha	20972	3.02
Technology option 2 Seed (TKM (R) 12 / ADT 39 / ADT 36 / CO 43	TNAU, Coimbatore	3.04	t/ha	22978	3.18
Technology option 3 Seed (ANNA-4)	TNAU, Coimbatore	3.53	t/ha	28230	3.66

1.	Title of Technology Assessed	:	Assessment	of New	Rice variety A	NNA-4 in Dro	ought prone areas		
2.	Problem Definition	:	Non availab and poor qu rainfed cond Cuddalore d Kar variety v	ility of s ality of e dition es istrict. T vhich yie	uitable variet xisting varieti specially in t he farmers we	y for drought es were obser he Nallur and ere using the d and also fetche	prone area. Low yi ved as problem un d Mangalur blocks old and local variety es low market price.	ield der of vi.e	
3.	Details of technologies selected for assessme	nt :	Farmers pr Technology option 1 Technology option 2	actice / /	: Local kar ( : Seed (TKN CO 43 : Seed (ANI	red) varieties /( (R) 12 / ADT NA-4)	Г 39 / ADT 36 /		
4.	Source of technology	:	TNAU, Coim	batore					
5.	Production system and thematic area	1 :	Rainfed farm	ning					
6.	Performance of the	:	The growth	and yie	ld attributes of	observed with	ANNA 4 were hig	her	
	Technology with		than local (F	armers	practice and	recommended	d varieties). The hig	her	
	performance indicators	3	yield of 353	0 kg /ha	a was observ	ed with the va	ariety ANNA 4. It a	also	
			had the high	er gross	s income (Rs.	3830 /ha), ne	et return (Rs.28230/	ha)	
			and benefit cost ratio (3.66) compared to farmers practice (Rs.31372						
			/ha, Rs.209	72 /ha	and 3.02 re	spectively). T	The alternate pract	tice	
			increased th	e yield b	y 19.20 % as	compared to	the farmers practice	э.	
7	Feedback matrix scori	na of	Farmors folt	that AN		ned well than t	be local Kar and ot	hor	
1.	various technology	ing of .	varieties Th	e vield w	vas also highe	$\simeq$ r in ANNA 4 r	rice and the rice was	s of	
	parameters done throu	Jah	medium sler	nder arai	n quality.			5 01	
	farmer's participation /	.9.	Matrix: Farm	ers part	icipation in pr	oduction techr	nologies (%)		
	other scoring			•			5 ( )		
	techniques								
	Seed treatment	Direct S	Sowing	11	M	IPM	PHT		
	60 %	1(	00 %	65	%	75 %	80 %		
8	Final recommendation	for ·	ANNA 4 ie e	uitable f	or drought pro	one areas of C	uddalore district		
0.	micro level situation				e. aloagin pro				
9.	Constraints identified a	and :	-						
	feedback for research								

Process of farmers
 Farmers actively participated in farmers meeting, training and field
 campaign. The farmers were highly satisfied with performance of
 ANNA 4 paddy variety.

Crop/ enterprise	Farming situation	Problem definitio n	Title of OFT	No. of trial	Technology Assessed	Parameters of assessment	Data on the parameter	Resul ts of asses sment	Feedback from the farmer	Any refinement done	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Paddy	Irrigated		Production of hybrid rice CORH3 in farmer participatory approach	4	<ul> <li>TA1: (Farmer's practice) No Practise of seed production</li> <li>TA2: (Alternate practice) Production of seed (var: Co 43) as per recommended practice in farmer participatory approach</li> <li>TA3</li> <li>Seed production of hybrid rice CORH 3 adopting all recommended practices in farmer participatory approach</li> </ul>	Growth and yield attributes of paddy	No. of productive tillers/hill Seed set (%) Seed yield Economics	The nu transpla female 2 rows 30x15c line. No after t comple	ursery was anted on 1 (A line) in th of male (R I m and 20 cn ow the crops transplanting ted during Ju	raised on 16.0 1.03.2011 with le spacing of 10 ine) line with the n between fema is at tillering sta ) and the tra ine 2011.	2.2011 and 8 rows of x15 cm and e spacing of le and male ge (35 days ail will be

## 4.02. Production of hybrid rice CORH3 in farmer participatory approach

1.	Title of Technology Assessed	:	Production of hybrid rice CO	RH3 in farmer participatory approach
2.	Problem Definition	:	Lack of awareness among fa Non synchronization of flowe Pollen shedders in 'A' line Non availability of hybrid see	armers about hybridization technology ering eds
3.	Details of technologies	:	Technology option	Technology Assessed
			Technology option 1 (Farmer's practice)	No practise of seed production
			Technology option 2 (Alternate practice)	Production of seed (var: CO 43) as per recommended practice in farmer participatory approach
			Technology option 3	Seed production of hybrid rice CORH 3 adopting all recommended practices in farmer participatory approach
4.	Source of technology	:	Tamil Nadu Agric	ultural University, Coimbatore
5.	Production system and	:	Production of hybrid rice CO	RH3 in farmer participatory approach
	thematic area			
6.	Performance of the	:	-	
	Technology with			
	performance indicators			
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			

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trial	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Blackgram	Irrigated	<ul> <li>Use of local varieties</li> <li>Improper nutrient manageme nt</li> <li>Inadequate knowledge on seed treatment</li> <li>No foliar application of DAP and growth</li> </ul>	Assessment of performance of pulse wonder in blackgram Co (Bg) 6	10	TA1: (Farmer's practice) No fertilizer application	Growth and yield attributes of blackgram	No. of pods per plant No. of Seeds per pod 100 seeds weight (g) and seeds yield	Pulse wonder application on blackgram produced more pods per plant and also more number of seeds per pod resulted in increased yield of blackgram.	Farmers were convinced with the performance of pulse wonder application which improves pod filling and eventually resulted	-	-

4.03. Assessment of performance of pulse wonder in blackgram Co (Bg) 6

<ul> <li>Inadequased rate rice fallo pulses</li> </ul>	ate e in w w ate e in w w and 45 <sup>th</sup> DAS and NAA 40 ppm at 30 <sup>th</sup> and 45 <sup>th</sup> DAS TA3: NPKS + pulse wonder containing NAA @ 5.6 kgha <sup>-1</sup> at 50 per cent flowering stage	t	nigher productivity of blackgram. The farmers were also satisfied with the performance of the variety CO (Bg) 6.	
--	---	---	---	--

Technology Assessed	Production	Yield	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15	16	17
T1- Farmer's practice (No fertilizer application)	375	kg/ha	6,000	1.66
TA2: (Alternate practice) Recommended by TNAU NPK + DAP 2 % foliar spray at $30^{th}$ and $45^{th}$ DAS and NAA 40 ppm at $30^{th}$ and $45^{th}$ DAS	825	kg/ha	19,000	2.35
TA3: NPK + pulse wonder containing NAA @ 5.6 kgha <sup>-1</sup> at 50 per cent flowering stage	1125	kg/ha	30,650	3.14

- 1. Title of Technology : Assessment of the performance of pulse wonder in Blackgram Assessed
- 2. Problem Definition : Black gram is one of the most important pulse crop grown in Cuddalore district as rice fallow pulses and also solo crop. Generally the farmers are getting low yield due to use of local varieties of blackgram, inadequate nutrient supply and inadequate knowledge on pest and disease problem. Hence, the OFT on Assessment of the Performance of pulse wonder in blackgram was conducted at ten villages of Cuddalore district.
- Details of technologies : The On farm testing on assessment of the performance of pulse wonder in blackgram was raised in 10 locations in Cuddalore district. Soil type of demonstration area was sandy loam and clay loam in texture with medium in N, P and high in K. The variety selected for this demonstration was Co (Bg) 6 and sown as pure crop. All the recommended packages were followed and the crop was harvested on first week of February.

	T1	Farmers Practice	:	No fertilizer application
	T2	Recommended	:	Recommended dose of NPK + DAP
		practices		2 % foliar spray at $30^{ ext{th}}$ and $45^{ ext{th}}$ DAS
				and NAA 40 ppm at $30^{th}$ and $45^{th}$
				DAS
	Т3	Tech. assessed	:	Recommended dose of NPK + pulse
				wonder containing NAA @ 5.6 kg/ha
				at 50 per cent flowering stage
Courses of technology		Crop F	) hvoi	ology Tomil Nody Agricultural University

- 4. Source of technology : Department of Crop Physiology, Tamil Nadu Agricultural University, Coimbatore.
  - Production system and : Irrigated; Nutrient management thematic area

5.

- 6. Performance of the : Flower dropping was reduced and pod setting were increased and Technology with no of pods/plant and no of seeds per pod increased under technology performance indicators option 3.
- Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques
   The farmers' feedback indicated that flower dropping was reduced due to pulse wonder spray and subsequently pod setting increased, seed size, number of pods / plant and number of seeds / pod were also increased. Farmers were happy with performance of pulse wonder spray on blackgram variety (Co (Bg) 6) which gave higher yield.

Seed treatment	pulse wonder spray	NAA spray
----------------	--------------------	-----------

60 %         96 %         65 %         75 %	
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- 8. Final recommendation for micro level situation
  : The results of demonstration revealed that the application of pulse wonder through foliar spray had the highest yield of 1125 kg/ha blackgram when compared to farmers practices (375 kg/ha). Economic analysis indicated that application of pulse wonder increased the highest net return due to highest blackgram yield.
- 9. Constraints identified and feedback for research
- 10. Process of farmers: Farmers actively participated in farmers meeting, training and field<br/>assessment. They were happy due to getting higher yield from this<br/>technology having pulse wonder spray on blackgram.

: Nil

4.04. Assessment of planting methods in redgram	

Crop/	Farming	Problem	Title of	No.	Technology Assessed	Paramete	Data on the	Results of	Feedback	Any	Justific
enterprise	situation	definition	OFT	of		rs of	parameter	assessment	from the	refine	ation
				trial		assessm			farmer	ment	for
						ent				done	refinem
											ent
1	2	3	4	5	6	7	8	9	10	11	12
Redgram	Rainfed	Low	Assessmen	8	T1. Direct sowing,	Growth	No. of	The	-	-	
		yield in	t of planting		T2. Direct sowing with	and yield	branches,	transplanted			
		intercrop	methods in		seed treatment	attributes	No. of pod	redgram			
			redgram		(Rhizobium,		per plant,	was highly			
					Trichoderma, Phosphobact		no of seed	resistant to			
					eria), NAA and DAP Spray,		per pod	drought,			
					Pulse wonder and		and yield	which			
					thiodicarb spray			sustain well			
					T3. Seeds were treated			when there			
					with Rhizobium,			was a dry			
					Trichoderma and			spell for 20			
					Phosphobacteria and sown			days and			
					in polybags and			gave a			
					transplanted on 20 DAS			higher pod			
					and foliar spray of NAA,			yield.			
					DAP, Pulse wonder and						
					thiodicarb						
	1	1	1	1		1		1	1	1	1

## Contd..

Technology Assessed	Production	Yield (kg/ha)	Net Return ( Rs. / ha)	BC Ratio
13	14	15	16	17
T1- Farmer's practice (Direct sowing)	571	kg/ha	14021	2.33
TA2: (Alternate practice) Direct sowing with seed treatment (Rhizobium, Trichoderma,Phosphobacteria), NAA and DAP Spray, Pulse wonder and thiodicarb spray	878	kg/ha	26952	3.45
TA3: seeds were treated with Rhizobium, Trichoderma and Phosphobacteria and sown in polybags and transplanted on 25-28 DAS and foliar spray of NAA, DAP, Pulse wonder and thiodicarb	1088	kg/ha	36228	4.15

- 1. Title of Technology : Assessment of planting methods in redgram
- Assessed
- 2. Problem Definition

: Redgram (*Cajanus cajan*) is one of the remunerative pulse crop owing to its dominance in our daily diet. Generally redgram is grown as intercrop in the groundnut and cotton based intercropping systems. Growing redgram as pure crop is generally not being practiced by the farmers of cuddalore

district. In this context, transplanting of redgram was tried to enjoy the benefits of lower seed rate( only 2.5kg/ha),more side branches with profused growth coupled with higher yield on seeing the performances. More response was seen from small and medium farmers. Hence, OFT on transplanted redgram was conducted to assess the effect of it compared to the farmers practice of direct sowing under rainfed situation.

- Details of technologies : On farm trial was raised in 8 locations of Pudukooraipettai, selected for assessment
   Kuppanantham and Chinnakandiyankuppam villages in Vriddhachalam block. The major soil type was red sandy loam. The crop was planted during the second week of July 2010. All the recommended package of practices were followed and the crop was harvested during the second week of November 2010.
  - T1 : Direct sowing
  - T2 : Direct sowing with seed treatment (Rhizobium, Trichoderma,Phosphobacteria), NAA and DAP Spray, Pulse wonder and thiodicarb spray
  - T3 : Seed treatment with Rhizobium, Trichoderma and Phosphobacteria and sown in polybags and transplanted on 25-28 DAS and foliar spray of NAA, DAP, Pulse wonder and thiodicarb
  - Source of technology : UAS, Dharwad
- 5. Production system and thematic area

performance indicators

4.

6.

- : Crop management
- Performance of the: The growth and yield attributes such as plant height, no. of branchesTechnology withper plant, no. of pod per branch, No. of seeds per pod and yield.
- Feedback, matrix scoring The farmers were impressed and satisfied with the 7. : of various technology performance of the transplanting method of redgram which has several advantages compared to farmers practices. Due to the parameters done through transplanting, the plant stand was maintained and the establishment farmer's participation / of the crop was also good and the crop had higher ability to withstand other scoring techniques the drought. Field day was also conducted on 10.11.2010 in the kuppanatham and the same was published in the village of newspaper filed dated 11.11.2010 is enclosed herewith.
| Seed treatment | Pulse wonder<br>spray | NAA sp | ray DAP spray |
|----------------|-----------------------|--------|---------------|
| 60 %           | 96 %                  | 65 %   | 75 %          |

- 8. The transplanted redgram was tolerant to drought when there was a Final recommendation for : micro level situation dry spell of 2 days. The establishment of crop indirect sown redgram was very poor. The wider spacing in redgram resulted in more number of branches / plant & pods / plant which eventually resulted in higher yield (1088 kg/ha) as compared to farmers practice (650 kg/ha) and recommended practice (750 kg /ha). The net income (Rs.36228 /ha) and benefit cost ratio (4.15) was also highest with transplanted redgram where compared to farmers practice (Rs.14021 /ha, and 2.33 respectively). The alternate practice recorded the increased yield (52.5 %) compared to the farmers practice. 9. Constraints identified and : -
- 10.
   Process of farmers
   :
   Farmers actively participated in farmers meeting, training and field

   participation and their
   assessment. They were impressed the performance of transplanted

   reaction
   redgram.

feedback for research

4.05. Management of Stem for in ground nu	4.05.	Management	of Stem	rot in	ground n	ut
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Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trial	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Groundnut	Irrigated/ rainfed	Stem rot and root rot are the major factor influencing plant stand and responsible for low yield in groundnut. Poor adoption of seed treatment method. Wrong method of seed treatment if practiced, leads to non- uniform protection in field. Use of sub optimal dose of seed dressers.	Management of stem rot in groundnut	10	TA1: (Farmer's practice) 1. Seed treatment with carbendazim TA2: (Alternate practice) Recommended by TNAU 2. Seed treatment and Soil application of Trichoderma viride TA3: 3. Seed treatment with Trichoderma 4g/kg and soil application @ 2.5 kg/ha. Foliar application of Pseudomonas 3kg/ha at 60 DAS	<ol> <li>Incidence of root rot.</li> <li>Plant stand.</li> <li>Pod yield/ha.</li> <li>Benefit cost ratio.</li> </ol>	No. of pods per plant 100 seeds weight (g) and seeds yield	Seed treatment + Soil application of Trichoderma viride followed by foliar application of Pseudomonas 3kg/ha resulted in optimum initial plant stand. Due to reduced incidence of stem rot, the final plant stand was not affected. The phyto tonic effect of Trichoderma also resulted in increased number of matured pods per plant, 100 kernal weight and shelling percentage and ultimately resulted in higher pod yield of groundnut.	Farmers were satisfied with stem rot management technology in groundnut due to higher yield achieved through optimum plant stand The farmers also convinced with this technology due to higher productivity of groundnut.

Contd..

Any refinement done	Justification for refinement	Technology Assessed	Production (t/ha)	Yield (t/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14	15	16	17
-	-	T1- Farmer's practice	1.6	t/ha	28500	2.5
		TA2: (Alternate practice) Recommended by TNAU Seed treatment with <i>Trichoderma</i> <i>viride</i> and Soil application of <i>Trichoderma viride</i>	1.8	t/ha	34200	2.7
		TA3: Seed treatment with Trichoderma 4g/kg and soil application @ 2.5 kg/ha. Foliar application of Pseudomonas 3kg/ha at 60 DAS.(NRCG Junagadh)	2.3	t/ha	48700	3.4

- 1. Title of Technology : Management of stem rot in groundnut Assessed
- Problem Definition : The farmers are getting very low yield mainly due to improper management practices especially seed treatment, pest and disease problem. Most of the farmers are using untreated seeds which led to higher incidence of root rot and stem rot disease, which results in poor plant stand at harvest.
- Details of : OFT on assessment of the performance of management of stem rot in groundnut technologies selected for area was sandy loam and clay loam in texture with medium in N, P and high in K. The variety selected for this demonstration was VRI-2 and TMV-7. All the recommendation packages were followed and the crop was harvested on first week of February 2011.

T1	Farmers Practice	:	1. Seed treatment with carbendazim
T2	Recommended practices	:	2. Seed treatment and Soil application of <i>Trichoderma viride</i>
Т3	Tech. assessed	:	3. Seed treatment with <i>Trichoderma viride</i> @ 4g/kg of seed and soil application @ 2.5 kg/ha. Foliar application of Pseudomonas @ 3kg/ha at 60 DAS.

- 4. Source of technology
   5. Production
   Coimbatore.
   Irrigated/ rainfed groundnut production system.
- system and thematic area
- 6. Performance of the : Percentage of mortality was reduced the optimum plant stand, increase in number
   Technology with performance indicators
   Percentage of mortality was reduced the optimum plant stand, increase in number of matured pods and 100 kernel weight resulted in higher pod yield under technology option 3.
- 7. Feedback, matrix : The farmers were highly impressed with the seed treatment techniques for scoring of various controlling the stem rot in groundnut

technology	Seed treatment	Foliar spray	INM	IPM
parameters	94 %	82 %	78 %	85 %

- Final : The highest yield of 2300 kg/ha was observed under seed treatment with recommendation for micro level situation
   The highest yield of 2300 kg/ha was observed under seed treatment with *Trichoderma viride* @ 4g/kg of seed and soil application @ 2.5 kg/ha foliar application of Pseudomonas @ 3kg/ha at 60 DAS when compared to farmers practices (1600 kg/ha). Similar trend in economic analysis was also observed.
- 9. Constraints identified and feedback

:

 10. Process of farmers
 : Farmers actively participated in farmers meeting, training and field assessment.

 participation and
 The farmers were also involved in the demonstrations.

 their reaction
 The farmers were also involved in the demonstrations.

### 4.06. Nematodes management in tuberose

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology refined	Parameters of refined t	Data on the parameter	Results of refinement	Feedback from the	Details of refinement
-							-		farmer	done
1	2	3	4	5	6	7	8	9	10	11
Tuberose/	Irrigated	Nematode	Nematode	5	Nematode	Nematode	Trial in	Tuberose/	Yet to	
plant		infestation	management		control	infestation	progress	plant protection	arrive,	Nil
protection		leads to	in Tuberose			(%)			since the	
		yield							trial is in	
		reduction in				Flower			progress	
		tuberose				yield				
		due to								
		mortality of				BCR				
		the crop								

Technology Assessed	Source of Technology for Technology Option1 / Justification for modification of assessed Technology Option 1	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			
Technology Option 1 ( Farmer's practice)	Application of carbofuran 3G @ 1g/plant							
Technology Option 2	Application of carbofuran and							
(Recommended practice)	neem cake (TNAU)		Trial under progress					
	Application of Pseudomonas							
Technology Option 3(Assessment)	fluorescens in the soil and use							
(Assessment)	of plastic mulch for tuberose							
	cultivation.							

- 1. Title of Technology : Nematode management in Tuberose Assessed
- 2. Problem Definition : Area under cultivation of flowers crops especially tuberose as perennial crop for three years has been widely adopted by Cuddalore farmers. Day by day the area under this crop has been increasing because of the demand for the crop in this region and as it provides a steady source of monthly income. There is no constraint in marketing tuberose in this region. But the limitation lies with cultivation, especially plant protection aspect. Specifically nematode infestation in tuberose, arising due to improper water management and lack of awareness about precautionary measures to be taken to prevent nematode infestation in the field before planting. Nematode infestation leads to flower yield loss and on latter stages death of the whole plant, leaving its source inoculums in the main field, thereby favouring nematode spread in the soil.

3.	Details of technologies selected for assessment	:	Farmers practice	Applic	ation of (	Carbofur	an 3G @ 1g/pl	ant	
			Technology	Application of carbofuran and neem cake					
			Technology	logy Application of <i>Pseudomonas fluorescens</i> in the					
			option 2	ion 2 soil and use of plastic mulch for tuberose					
				cultiva	tion.				
4.	Source of technology	:	TNAU, Coimbat	ore					
5.	Production system and thematic area	:	Micro-irrigation and Plant protection						
6.	Performance of the	:	Tuberose Variety: Prajwal Season: 3 <sup>rd</sup> week of February				ek of February,		
	Technology with		2011						
	performance indicators		Performance	)	Techn	ology	Technology	Technology	
			indicators		Opti	on 1	Option 2	Option 3	
			Nematode infestation (% Flower yield	<b>)</b> )	Recordi observa	ng of tion in	Recording of observation	Recording of observation	
			BCR		progres	s	in progress	in progress	
7.	Feedback, matrix scoring		Due to heavy ra	in and f	lood dur	ing the n	nonths of Nove	mber and	
	of various technology		December, 201	0 in Cuo	dalore c	listrict, th	ne trail has bee	n implemented	
	parameters done through		in farmers field l	in farmers field by February 3 <sup>rd</sup> week of 2011 and recording of					
	farmer's participation /		observations in progress						
	other		Matrix	scoring	by ben	eficiary	farmers:		
			Pre-sowing	bulb/k	oulblets	Drip ins	stalled fields		
			treatment						

90%

50%

- 8. Final recommendation for : Trail is in progress and yet to arrive micro level situation
- 9. Constraints identified and : Trail is in progress and yet to arrive feedback for research
- Process of farmers : Farmers are looking for a micro level solution that would minimize the participation and their reaction
   Farmers are looking for a micro level solution that would minimize the loss of flower yield and plant mortality due to nematode infestation in tuberose.

#### Nematode Infestation - Plant root and soil sample analysis report:

Nematode infested soil and plant root samples were collected from the beneficiary farmers field and the sample analysis report was obtained from Department of Nematology, Tamil Nadu University, Coimbatore. The results inferred that in two farmers field the root samples contained knot nematode *Meloidogyne incognita* below the threshold level (54/250ml soil and minimum galls in roots). However, in other three farmers field the knot nematode infestation in root and soil were found to be moderate to severe. Hence, it's recommended to take the nematode management practices.

#### **Observed nematode infested Plant Symptoms :**

In Cuddalore tuberose growing areas, nematode infected flower stalk initially appears rough, stalk becomes crinkled, stunted and finally distorted and in severe cases flower buds failed to bloom. Brown streaks appear on leaf bracts and petals and subsequently develop into rusty brown spots. The severely infected flower stalk becomes rotten and brittle over drying, even gets blind and the number of flowers per stalk is also reduced.

Crop/	Farming	Problem	Title of	No.	Technology	Parameters	Data on the	Results of	Feedback	Details of
enterprise	situation	definition	OFI	0† trials	refined	of refined t	parameter	refinement	from the	refinement
1	2	3	4	5	6	7	8	9	10	11
Tapioca/ quality planting material production	Nursery	Non- availability of healthy planting materials. Farmer's practice of using Pest and disease infected setts for propagation Need for quality sett multiplication production system in Tapioca.	Testing the potential of portray raised single budded setts in Tapioca	5	T1 : Direct planting of 8-10 budded setts in the main field T2 : Two budded setts raised on raised bed nursery of Variety Mulluvadi T3 : Portray raised single budded tapioca setts of Variety Mulluvadi	Average number of setts/ mother plant Average number of days taken to sprout Percentage of sprouting Average number of healthy plants/ tray	Best T3 option : Average number of setts/ mother plant - 11 nos. Average number of days taken to sprout - 1 day Percentage of sprouting – 80%	Increased no. of healthy planting material/ mother plant Germintation days has been reduced Increased percentage of germination Production of healthy seedlings have increased	Feedback from the farmers of this trail are positive and they found this technology useful in tapioca.	Multiplication of single budded tapioca setts from healthy mother plants
							healthy plants/ tray - 90 %			

### 4.07. Testing potential of portray raised single buded setts in tapioca

Technology Assessed	Source of Technology for Technology Option1 / Justification for modification of assessed Technology Option 1	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	
Technology Option 1(Farmer's practice)	Direct planting of 8-10 budded setts in the main field	Irrigated	Crop establishment % in main field-70 %	To be arrived on crop completion		
Technology Option 2 ( Recommended practice)	Two budded setts raised on raised bed nursery of Variety Mulluvadi TNAU	Irrigated	Crop establishment % in main field-75 %	To be arrived on crop completion		
Technology Option 3 ( Assessment)	Portray raised single budded tapioca setts of Variety – Mulluvadi- TNAU, 2010(KVK, CUDDALORE)	Irrigated	Crop establishment % in main field – 99.9 %	To be arrived on crop completion		

Data at Nursery level were furnished and the field data would be furnished on latter stage on crop completion.

- 1. Title of Technology : Testing the potential of portray raised single budded setts in Tapioca. Assessed
- 2. Problem Definition : Tapioca cultivation in larger areas has been practiced by farmers in Cuddalore district. Tapioca mosaic virus disease has been found to be a major yield loss problem these areas especially because of the farmer's practice of using 4-6 budded setts in the main field without raising 2 budded setts in the raised bed nursery ( as per TNAU 's recommendation). In the mean time, farmers of Cuddalore district started utilizing vegetable seedlings raised from portray nursery. In this regard, a need for single budded tapioca setts propagation in portray nursery for tapioca, wherein quality planting material would result in managing the yield loss due to poor quality planting material was considered to be tested with that of 2 budded sett propagation in raised bed nursery comparing to their conventional method of practice.
- Details of technologies selected for assessment

Farmers practice	Direct planting of 8-10 budded setts in the main field
Technology option 1	Two budded setts raised on raised bed nursery of Variety Mulluvadi
Technology option 2	Portray raised single budded tapioca setts of Variety Mulluvadi

- Source of : ICAR-TNAU Krishi Vigyan Kendra, Vriddhachalam (2010) technology
- 5. Production : Nursery and propagation of quality planting material. system and

:

- thematic area
- Performance : Tapioca Variety: Mulluvadi Season : 3<sup>rd</sup> week of January, 2011 (Thai Pattam) of the

Technology	Performance	Technology	Technology	Technology
with	Indicators	Option 1	Option 2	Option 3
performance	Average number of setts/ mother plant	3	6	11
indicators	Average number of days taken to sprout	13	8	5
	Percentage of sprouting/tray	64	72	80
	Average number of healthy plants/unit	60 %	76 %	90 %
	Uniformity in seedling (%)	50	74	90

Mortality in main field (%)	30	25	Nil or 0.01
Crops stand uniformity (%)	50	70	95

The data furnished here are pertaining to the protray and raised bed nursery seedlings and crop stand at the main field. However, data referring to crop performance of the three treatments with regard to its phenology, pest and disease incidence, root bulking, harvesting and income would be added on crop completion.

Farmers feel comfortable as the tapioca seedlings were delivered to the 7. Feedback, farmers at 45<sup>th</sup> day. They make use of the land for raising short duration matrix scoring of crops (45 days) and get an additional income from it. While during various transplanting, they feel comfortable in storing and handling the trays, as they technology are easy to transport. parameters done through In case of protray raised tapioca seedlings, well formed feeder roots and farmer's seedling vigour makes the seedlings easy for establishment at the main field. participation / Since there's no or less work for gap filling, they save labour cost for this other scoring operation. In addition, the healthy mother plants required for multiplications techniques are minimized and therefore reduction in cost of the planting material. Farmers of Cuddalore district are highly satisfied with the portray nursery

Mulluvadi	variety	Portray raise	d single	Transplanted on 46 th	Practicing Proper		
preference		budded sett p	reference	day (seedlings)	management		
					practices		
99 %		90 %		80 %	75%		

single budded tapioca setts propagation for multiplying quality planting

Matrix	scoring	of the	OFT	beneficiary	/ farmers:
INIGUI IA	30011119	<b>OI 11</b>		Delle loiui	10111013

material.

- Final recommendation for : Technical option 2 (Assessed): Portray raised single budded micro level situation tapioca setts propagation technique is highly recommended for Tapioca growing Cuddalore district farmers.
- 9. Constraints identified and feedback for research
   Cocopeat as growing media in portray nursery has been a costly material and the pH got to be neutral for normal growth and development of the seedlings. Relatively low cost and effective alternate growing media instead of cocopeat would

suffice to farmers to establish their own community nursery of this kind. Research effort in this regard would be economically viable for farmer's adoption of this technology.

 10. Process of farmers
 : Three out of the five tapioca growing farmers were very participation and their

 participation and their
 proactive and their co-operation in carrying out this OFT was commendable.

4.09. Area	a specific	mineral	mixture	in	dairy co	ws
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Crop/ enterprise	Farming situation	Proble m definiti on	Title of OFT	No. of trial s	Technology Assessed	Paramet ers of assess ment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refine ment needed	Justific ation for refinem ent
1	2	3	4	5	6	7	8	9	10	11	12
Dairy	Dairy farming	Poor yield of milk	Area specific mineral mixture for dairy cows	10	<ol> <li>Technology option-1 (Farmer's practice)</li> <li>Technology option -2 (TANUVAS Mineral mixture)</li> <li>Technology option -3 (Area specific mineral mixture. It is recommended by TANUVAS)</li> </ol>	Percenta ge of milk yield,	Quantity of milk yield increased from 2 liter to 4-5 liters, fat content increased from 3.5 to 4.5 percent	Yield of milk Increased at two time	Increase the yield of milk. The external appearance of animals active and healthy. Periodically conceive the appropriate time. Consumption rate increased when compared to without supplementation of mineral mixtures	-	-

### 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	Incremental Cost Benefit ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	Without mineral mixture	2 - 3 liters/ time/ animal	5 liters/animal /day (5x30=Rs.150) 30x5 = 150 liters/ animal/ month 150 x 6 = 900 liters / animal 1 liter =Rs.30 , 900x30 = Rs. 27,000 (Actual feed cost Rs.30 /day Rs. 30X30=Rs. 900/month)	Rs.120/day/animal (Rs.150- 30= 120) (Rs.27,000- 900 = Rs.26,100/animal/6 month)	-
Technology option 2 (TANUVAS Mineral mixture)	TANUVAS, Chennai	Average of milk yield 3 –4. liters / time/ animal	6 liters/animal /day (6x30=Rs.180) 30x6 = 180 liters/ animal/ month 180 x 6 = 1080 liters / animal 1 liter =Rs.30 , 1080 x30 = Rs. 32,400 (Actual feed cost Rs.30.5 per day Rs. 30X30.5=Rs. 915/month)	Rs.149.5/day/animal (Rs.180-30.50= 149.50) (Rs.32,400-915 = Rs.31,485/animal)	1: 59.8
Technology option 3 (Area specific mineral mixture)	TANUVAS , Chennai (Cuddalore district area specific mineral mixture)	Average of milk yield 3 -4.5 liters / time/ animal	8 liters/animal /day (8x30=Rs.240) 30x8 =240 liters/ animal/ month 240 x6 = 1440 liters / animal / six month 1 liter =Rs.30, 1440 x30 = Rs.43,200 (Actual feed cost Rs.31, 30X31=930)	Rs.239/day/animal Rs.240-31 = Rs. 239.0 43,200 – 930= Rs.42,270/animal/6 month)	1: 89.8

\*Mineral mixture - cost of 1 kg is Rs.50/- . Mineral mixture - 50 g/ day /animal (feed cost 50 paise/day)

1.	Title of Technology Assessed	: Area specific mineral mixture for dairy co	ws.

2. Problem Definition : Poor milk yield, unhealthy and poor consumption rate.

3. Details of technologies selected for assessment :

T1	Technology option-1	Without mineral supplementation (Farmer's practice)
T2	Technology option -2	TANUVAS Mineral mixture supplementation
Т3	Technology option -3	Area specific mineral mixture. It is recommended by TANUVAS mineral supplementation

Source of technology : TANUVAS, Chennai
Production system and thematic area : The reproductive performance of the cow is influenced by the way cows are fed during the dry period and early lactation. After parturition cows should be fed balanced ratio so that body weight losses are minimum. This

will allow the cow to attain a positive energy balance in a shorter period of time.

- 6. Performance of the Technology with performance indicators: proper nutrition overcame the delay in the resumption of ovarian activity and estrus in postpartum cows and the slowness to resume cycling and re-conceive was also avoided. Due to the area specific mineral mixture, not only the milk yield, the cows were conceived in time without any delay.
- 7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques:

Open grazing	Concentrate + dry fodder	Concentrate	Supplement with miner					
			mixture					
65 %	80 %	80 %	92	%				

- 8. Final recommendation for micro level situation: It is good for increasing milk yield.
- 9. Constraints identified and feedback for research: There no constraints in the trials
- 10. Process of farmers' participation and their reaction: Farmers involvement is more

#### 4.D1. Results of Technologies Refined : Nil

#### **PART V - FRONTLINE DEMONSTRATIONS**

### 5.A. Summary of FLDs implemented during 2010-11

SI. No	Category	Farming Situation	Season and	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. der	Reasons for shortfall							
•								Year						Prop osed	Actu al	SC/ST	Others	Total	in achievem ent
1	Pulses	Irrigated	Rabi 2010	-	-	-	-	Drought mitigation technology in pulses	-	-	-	-	-	-					
2	Cereals	Irrigated	Rabi 2010- 11	Paddy	Co (R) 50	-	Crop improvement	Popularization of new variety and ICMP	5	5	3	7	10	-					
		Irrigated	Rabi 2010- 11	Paddy	-	Co (R) H 3	Crop improvement	Popularization of new variety and ICMP	5	5	4	6	10	-					
3	Vegetables	Irrigated	July (2010)	Brinjal	-	CoBH2	crop improvement	Popularization of COBH2 Brinjal	1	1	2	8	10	-					
		Irrigated	July (2010)	Snake gourd	PLR( SG)2	-	crop improvement	Popularization of Snake gourd PLR(SG)2	5	5	1	9	10	-					
		Irrigated	Januar y (2011)	Water melon	Farmers choice	-	ICM	Integrated crop management practices in watermelon	1	1	1	4	5	-					
		Nursery	Januar y (2011)	Tapioca	Mulluva di	-	Quality plant production	Testing the potential of protray raised single budded	1	1	1	4	5	-					

								setts in Tapioca						
4	Flowers	Irrigated	Februa ry (2011)	Tuberose	-	-	Plant protection	Nematode management in Tuberose	1	1	-	5	5	-
5	Fodder	Irrigated	July 2010	Fodder grass	CN grass Co (Cn) 4 Guniea grass Co 3 and Desman thus.	-	Popularization	Popularization of fodder bank at village level	1	1	1	4	5	-
6	Plantation	Irrigated	July – Sep 2010	Cashew		VRI(C W)H1	Dryland production system	Introduction of hybrid cashew	5 ha	5 ha	2	8	10	-
7	Poultry	Backyar d poultry	Aug 2010	Turkey	Nanthan am	-	Poultry farming	Popularisation of Nanthanam turkey for backyard poultry	10	10	4	6	10 -	-
		Egg Hatchabi lity	2011	Poultry eggs	-	-	Poultry farming	Evaluation of hatchability of poultry eggs using low cost incubators	-	-	-	-	-	Incubator was purchase d during march 2011
8	Common carps	Commun ity ponds	2010	Cutla and Rogu	-	-	Fish culture	Popularisation of fish culture in village ponds	10	10	4	6	10	-
9	Implements	Irrigated	2010	Sugar cane	-	-	Farm mechanisation	Total mechanization in sugarcane	5	1	-	-	-	-

SI. No.	Category	Farming Situation	Season and	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Sta	tus of	soil	Previous crop grown
			Year						Ν	Ρ	К	
1	Pulses	Irrigated	Rabi 2010	-	-	-	-	Drought mitigation technology in pulses	Μ	Μ	Т	
2	Cereals	Irrigated	Rabi 2010-11	Paddy	Co (R) 50	-	Crop improvement	Popularisation of new variety and ICMP	L	М	Μ	Paddy
		Irrigated	Rabi 2010-11	Paddy	-	Co R H 3	Crop improvement	Popularisation of new variety and ICMP	L	М	М	Paddy
3	Vegetables	Irrigated	July (2010)	Brinjal	-	Co BH2	crop improvement	Popularization of COBH2 Brinjal	М	М	Н	-
		Irrigated	July (2010)	Snake gourd	PLR(SG)2	-	crop improvement	Popularization of Snake gourd PLR(SG)2	Μ	Μ	Н	-
		Irrigated	January (2011)	Water melon	Farmers choice	-	ICM	ICMP in watermelon	-	-		-
		Nursery	January (2011)	Tapioca	Mulluvadi	-	Quality plant production	Testing the potential of protray raised single budded setts in Tapioca	Μ	Μ	Н	

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

4	Flowers	Irrigated	February (2011)	Tuberose	-	-	Plant protection	Nematode management in Tuberose	L	М	Н	-
5	Fodder	Irrigated	July 2010	Fodder grass	Cumbu Napier CO 4 Guniea grass CO 3 and Desmanthus.	-	Popularization	Popularization of fodder bank at village level	L	Μ	Μ	-
6	Plantation	Irrigated	July – Sep 2010	Cashew		VRI(CW)H1	Dryland production system	Introduction of hybrid cashew	L	М	М	-

### 5.B. Results of Frontline Demonstrations

### 5.B.1. Crops

N. Crop d	Name of the			Farming situatio n	No.	Δro		Yield	(q/ha)		%	*Econ	omics of d (Rs./I	lemonstrat na)	ion	*Ecc	nomics (Rs./h	of chec a)	k
Сгор	technology demonstrat ed	Variet y	Hybrid		of De mo.	a (ha)		Demo		Check	Incr eas e	Gross Cost	Gross Return	Net Return	** BC R	Gross Cost	Gros s Retur n	Net Retur n	** BC R
							н	L	А										
Pulses	Drought mitigation technology in pulses	-	-	-	-	-	The	purchase	of mini mo	bile sprinl	kler was conduc	completed cted during	only during forth comi	g march 20 ng season.	11. Her	nce the der	nonstratio	on will be	;
Cereals	Popularisatio n of new variety in paddy	Co (R) 50	-	Irrigated	10	5	65.70	52.00	58.13	46.80	24.6	15064	63666	48602	4.23	15064	4790 3	3283 9	3.1 8

	Popularisatio n of new hybrid in paddy	Co (R) H 3	-	Irrigated	10	5	51.00	42.00	45.61	42.80	6.7	13846	50382	36536	3.68	13846	4348 6	2964 0	3.1 4
Vegetabl es	Popularizatio n of brinjal hybrid CoBH2	-	CoBH2	Irrigated	10	2	50.82	42.66	46.74	56.0	-16.0	1,00,00 0	1,80,00 0	80,000	1.80	1,00,00 0	2,75, 000	1,75, 000	2.7 5
	Popularisatio n of snake gourd PLR(Sg) 2	PLR(S g) 2	-	Irrigated	10	5	24.6	18.2	21.4	19.66	8.1	25,000	75,000	50,000	3.00	25,000	67,00 0	4200 0	2.6 8
	Integrated crop management practices in Watermelon	-	Farmer s choice	Irrigated	5	4	50.0	40.0	45.0	38.5	14.4	37,500	1,37,50 0	1,00,00 0	3.67	36,200	1,07, 000	70,80 0	2.9 6
Fodder	Popularizatio n of fodder bank at village level	CN grass Co (Cn) 4 Gunie a grass Co 3 and Desm anthus		Irrigated	5	1	The fodd	er crops a	re in vegeta	ative phas	se. Demo	nstration i	s under pro	ogress					
Plantatio n	Introduction of hybrid cashew	Cashe w	VRI(C W)H1	Irrigated	10	5	The tree	crop is in v	vegetative p	ohase and	d Demon	stration is	under prog	iress					
Farm mechani sation	Farm mechanisatio n	Sugar cane	-	Irrigated	5	5	Trial und	ler progres	s. Now the	crop at ti	illering st	age							

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

Data on other parameter	ers in relation to technology demonst	rated
Parameter with unit	Demo	Check
1. Popularisation of new variety in paddy Co (R) 50		
No.of tillers / hill (nos)	39.1	22.1
No. of productive tillers/hill (Nos)	36.8	15.6
2. Popularisation of new variety in paddy Co (R)H 3		
No.of tillers / hill (nos)	35.7	20.5
No. of productive tillers/hill (Nos)	32.3	15.3

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

5.B.2.1 Popularization of Nanthanam turkey for backyard poultry

Type of	Name of the	Brood	No.	No.	Yie	eld kg 8 <sup>th</sup>	/bird mont	during th	%	*Econ	omics of ( (Rs./10 F	demonstr armers)	ation	*E	conomics (Rs./10 F	s of chec armers)	k
livestock	demonstrated	Breed	Demo	or Units		Demo	<b>)</b>	Check	Increase	Gross	Gross	Net	**	Gross	Gross	Net	**
					н	L	A			Cost	Return	Return	BCK	Cost	Return	Return	BCK
Poultry	Backyard poultry (2010)	Nanthanam turkey	10	5+1	6.6	4.5	5.6	4.2	33.3	2760	7460	4700	2.70	2760	5390	2630	1.95

Contd..

S.No.	Particulars	*Economics of demonstration	*Economics of check
1.	Cost of the chick	Rs.150/chick	Rs.150/chick
2.	Cost of the feed	Rs.300/chick	Rs.300/chick
3.	Over head expenditure	Rs.10/chick	Rs.10/chick
4.	Sale of bird (Live weight)	Rs.200/ kg	Rs.200/ kg
5.	Sale of eggs	Rs. 15/egg (46 eggs)	Rs.10/egg (30 eggs)

5.B.2.2 Evaluation of hatchability of poultry eggs using low cost incubators

Type of livestock	Name of the	Brood	No. of	No.	Yi	eld k	g/bird d month	luring 8 <sup>th</sup> າ	%	*Econo	omics of (Rs./10 F	demonstr armers)	ation	*E(	conomics (Rs./10 F	s of chec armers)	k
livestock	demonstrated	Бгееа	Demo	0ī Unite		Den	no	Cheek	Increase	Gross	Gross	Net	**	Gross	Gross	Net	**
	uomonotiutou			Units	Н	L	А	Cneck		Cost	Return	Return	BCR	Cost	Return	Return	BCR
Poultry	Evaluation of hatchability of poultry eggs using low cost incubators	Rhodo white	-	5	Incu para	ibato amete	r was ir ers will b	nstalled and be assessed	l first batch after 15 day	of Rhod ys.	do white e	eggs were	e kept u	under inc	ubation.	The hatch	nability

Data on additional parameters other than yield (viz., reduction of percentage diseases, effective use of land etc.) - Nil

5.B.3. Fisheries	- Popularization	of Fish culture i	in village ponds
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Type of	Name of the	Brood	No. of	Units/		Yie	ld (q	/ha)	%	*Econ R	omics of s./unit) o	demonstr r (Rs./m2)	ation	*E R	conomic: s./unit) o	s of chec r (Rs./m2	;k )
Breed	demonstrated	Dieea	Demo	(m <sup>2</sup> )	I	Demo	D	Check if any	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					Н	L	Α										
Common carps	Popularization of Fish culture in village ponds	-	10	10				Demo	under prog	ress (Sinc	e the inpu	its has bee	en given	to Decer	mber 2010	))	

#### Popularization of Fish culture in village ponds (2009-10 results )

	Nome of the	D#	No.	Unit		Yie	ld/pon	d	%	*Econ F	omics of Rs./unit) o	demonst or (Rs./m <sup>2</sup>	ration		*Econ Rs./u	omics of nit) or (R	check s./m²)
Type of Breed	technology demonstrated	ee d	of Dem o	s/ Area (m²)		Demo (kg)	D	Check if any (kg)	Inc rea se	Gross Cost	Gross Retur n	Net Retur n	** BCR	Gross Cost	Gros s Retu rn	Net Retur n	** BCR
					Н	L	Α										
Commo n carps	Popularization of Fish culture in village ponds	-	10	600	45 0	25 0	350	125 kg	250	10,750	27,000	16,250	2.51	8,500	15,0 00	5000	1.76

Data on additional parameters other than yield (viz., reduction of percentage diseases, increase in conceiving rate, inter-calving period etc.) : Nil

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

SI. No.	Category	Technology Demonstrated	Variety	Hybrid	Season and year	Area (	ha)	No. der	of farme nonstrati	rs/ on	Reasons for shortfall in achievement
					-	Proposed	Actual	SC/ST	Others	Total	
	Production Technology	<ul> <li>Seed treatment with <ul> <li>a. Trichoderma viride @ 4 g / kg of seeds</li> <li>b. Azospirillum and</li> <li>Phosphobacterium @ 600 g /</li> <li>450g seeds</li> <li>&gt; Optimum spacing : 120 x 60 cm</li> <li>&gt; Application of pendimethalin @ 1.0 kg/ha as pre-emergence herbicides</li> <li>&gt; Application of NPK as per soil test value</li> <li>&gt; Soil application of biofertilizers – Azospirillum &amp; Phosphobacterium @ 2 kg each / ha with 25 kg FYM</li> <li>&gt; Gap filling on 10th DAS and Thinning on 15th DAS</li> <li>&gt; Earthingup on 40 – 45th DAS</li> <li>&gt; Foliar spray of NAA @ 40 ppm on 45th &amp; 75th DAS</li> <li>&gt; Topping on 90 DAS</li> </ul></li></ul>	-	RCH111 bt	Rabi 2010- 11	10	10	8	17	25	-

	<ul> <li>pest incidence)</li> <li>Sucking pest management :</li> <li>Spraying of Imidacloprid 18.5 SC @ 0.6ml/ lit or profenophos 50 EC @ 2ml/lit or acephate 75 SP @ 2g/lit .</li> <li>Boll worm complex- release of Trichogramma @ 2.5 cc/ac- three release</li> <li>Nutritional disorder – Reddening of leaves :</li> <li>0.5 % Mg SO4 and 0.1 % Urea + 0.1 %Zn SO4 as foliar spray on 50th and 80th DAS</li> </ul>									
	Foliar spray of 2 % KNO3 at flower initiation and boll opening stage									
Farm Implements	Rotavator (Tractor operated)	-	RCH111 bt	Rabi 2010-11	50	50	45	30	75	-
	Bed cum Furrow Former	-	RCH111 bt	Rabi 2010-11	50	50	45	30	75	-
	Power weeder	-	RCH111 bt	Rabi 2010-11	50	50	45	30	75	-

### 5.B.6.2 Production technology demonstrations

### Performance of demonstrations

Farming	Technology	Area	No.of	Varioty	Hybrid	Yield (q/ha)		%	Economics of demonstration (Rs./ha)				Economics of local check (Rs./ha)				
situation	Demonstrated	(ha)	demo.	variety		Demo	Local	Increase	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR	
Irrigated	Seed treatment with a. Trichoderma viride @ 4 g / kg of seeds	10	25	-	RCH111bt	18.78	11.12	40.79	37590	89788	52198	2.40	22248	40116	17868	1.80	
	b. Azospirillum and Phosphobacterium @ 600 g / 450g seeds																
	<ul> <li>Optimum spacing : 120 x 60 cm</li> </ul>																
	<ul> <li>Application of pendimethalin</li> <li>@ 1.0 kg/ha as pre- emergence herbicides</li> </ul>																
	<ul> <li>Application of NPK as per soil test value</li> </ul>																
	<ul> <li>Soil application of bio-fertilizers – Azospirillum &amp; Phosphobacte rium @ 2 kg each / ha with</li> </ul>																

25 kg FYM							
<ul> <li>Gap filling on</li> <li>10th DAS and</li> <li>Thinning on</li> <li>15th DAS</li> </ul>							
➢ 50th and 80th DAS							
Foliar spray of 2 % KNO3 at flower initiation and boll							
opening stage							

Performance of Bt hybrids, Desi hybrids, non-Bt hybrids and Varieties in Front Line Demonstrations in cotton during 2010-11

Category	Farming situation	Technology Demonstrated	Area (ha)	No.of			Yield (d	q/ha)	% Increase	Econo	omics of c (Rs./	lemonstr ′ha)	ation	Ecor	nomics of (Rs./	i local ch /ha)	eck
				demo.	Variety	Hybrid	Demo	Local		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Bt hybrids	Irrigated	Production technology		25	-	RCH 111 bt	18.78	11.12	40.79	37590	89788	52198	2.40	22248	40116	17868	1.80

5.B.6.3 Integrated pest management demonstrations : Nil

### 5.B.6.4 Demonstrations on farm implements

Name of the	Area No. of		Name of the technology	Labo op	Labour requirement for operation (Rs./ha)				
implement	(Ha)	Demo.	demonstrated	Demo	Local check	% change			
Rotavator (Tractor operated)	50	75	Rotavator for land preparation and also pulverize the soil	800	2200	63 %			
Bed cum Furrow Former	50	75	Bed cum Furrow Former for soil moisture conservation	800	2200	63 %			
Power weeder	50	75	Power weeder for controlling of weed menace	400	1500	73 %			

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

Extension activity	No. of	F	Participant	S	SC/ST			
	Programmes	Male	Female	Total	Male	Female	Total	
Consultancy	10	60	20	80	25	20	45	
Demonstrations	30	100	20	120	35	25	60	
Diagnostic surveys	5	30	10	40	15	5	20	
Exhibition	3	45	20	65	15	10	25	
Field Days	2	65	10	75	20	10	30	
Field visits	10	160	30	190	60	20	80	
Group discussions	3	60	4	64	20	5	25	
Training for Extension Functionaries	5	35	6	41	10	5	15	
Training for farmers	15	90	35	125	25	15	40	
Viedo show	8	300	50	350	120	60	180	
Popular articles	4	0	0	0	0	0	0	
Publication	3	0	0	0	0	0	0	
TOTAL	98	945	205	1150	345	175	520	

## 5.B.6.6.Technical Feedback on the demonstrated technologies on all crops / enterprise

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1.	Paddy	Popularisation of new variety in paddy Co(R) 50	• The new rice variety Co (R) 50 had higher growth and yield attributes as compared to farmers practice (BPT and ADT 46).
			<ul> <li>Co (R) 50 moderately resistant to blast, sheath blight, brown spot, bacterial leaf</li> </ul>
			<ul> <li>Highest yield of 6540 kg/ha was observed with Co (R) 50 due to higher tillers and productive tillers.</li> </ul>
			<ul> <li>The average yield observed with Co (R) 50 was 5813 kg / ha compared to check (4680 kg/ha)</li> </ul>
2.	Paddy	Popularisation of new variety in paddy Co (R) H 3	• Higher growth and yield attributes were observed with CORH 3 compared to farmers practice (ADT 36).
			<ul> <li>Highest yield of 5100 kg/ha was recorded in</li> <li>CO (R) H 3 due to higher tillers and productive tillers.</li> </ul>
			<ul> <li>An average yield was 4576 kg / ha in demoplot compared to check (4280 kg/ha). However, the yield increase was only 6.6 %.</li> </ul>
3.	Brinjal	Popularisation of COBH2 Brinjal	• COBH2 Brinjal's performance in this region compared to the check private hybrid, the fruit yield is less.
			• Farmer's face difficulty in fetching appropriate price for COBH2 fruits, as COBH2 fruits are sold at a price less than Rs.1/kg compared to other sevanthipatty brinjals.
			<ul> <li>Incidence of little leaf of Brinjal is prominent in COBH2 Brinjal grown areas.</li> </ul>
			<ul> <li>A positive observation has been made, when COBH2 brinjal were raised in raised bed+ drip+ mulch system in one farmer's field in Mathahalir manickam. In this field, crop mortality due to flood has not much affected the fruit yield.</li> </ul>
			<ul> <li>Incidence of shoot and fruit borer has resulted in reduced yield in addition to the above reasons in Cuddalore district.</li> </ul>

4.	Cotton	Production technology	RCH 111 bt out yielded the well than local check (RCH 2)
			<ul> <li>ICMP practices such as seed treatment with <i>T. viridi</i> @ 10 g / kg seeds , azospirillium and phosphobacterium @ 200 g / 450 g ,Soil application of bio-fertilizer - azospirillium and phosphobacterium @ 2 kg / ha each, Foliar application of NAA @ 1 ml in one liter, Yellow sticky trap, spraying of Imidoclopride , Foliar application of 0.5 % Mg SO4 &amp; 0.1 % (Urea + Zn SO4) significantly influenced the yield and quality of RCH 111bt</li> </ul>
5.	Implements	Demonstration of farm	Rotavator (Tractor operated)
		implements in rainfed cotton	• It performed primary and secondary tillage operation in one single operation to get deep and well pulverized seed bed for good nourishment and anchorage of plants.
			Bed cum Furrow Former
			It saved labours and time
			Timely operation
			Power weeder
			<ul> <li>It controls the weed infestation in early stage and save the labours</li> </ul>
6.	Fish fingerlings	Popularization of fish culture in village ponds	• Normally in the village ponds the optimum population of the fingerlings will not be maintained. However through this demonstration one fingerlings per m <sup>2</sup> was maintained which was reflected in the yield (500 kg/ 600 square meter ponds).
			<ul> <li>Pond fish culture suitable for cutla,rogu and mirgal, pullgantai and silver gantai</li> </ul>
			Grass carp and silver carp are surface feeder
			Middle layer - Grass carp and silver carp
			<ul> <li>Bottom layer – Mirgal. Therefore, there was no feed competition between the fingerlings.</li> </ul>

## 5.B.6.7 Farmers' reactions on specific technologies

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1	Paddy	Popularization of new variety in paddy Co ® 50	• Farmers were highly impressed with the performance of Co (R) 50 mainly because of higher yield and also minimum pest and disease occurrence.
			• Farmers felt that this variety will be a alternate for BPT and ADT 46 for late samba season.
2	Paddy	Popularisation of new variety in paddy Co ®H 3	• Farmers felt that the performance of Co (R)H 3 was almost on par with ADT 36. However, the disease incidence was low especially lakshmi disease than the other varieties.
3.	Cotton	Production technology	• The farmers expressed that RCH 111 bt cotton had more numbers of bolls when compared to local. But most of the farmers preferred the RCH 111 bt cotton due to market preference.
			• Farmers were satisfied about the advisory services by the scientists in pest identification, need based and time of pesticides application.
			• They were satisfied about the foliar spray of NAA . They noticed that squares and bolls shedding were reduced by 25-30% compared to farmers practice (No NAA foliar spray).
			• The farmers shared their experience with other farmers during field day and group meeting
4.	Brinjal	Popularisation of COBH2 Brinjal	<ul> <li>Initially farmer's were satisfied with the vigour and growth of the plant.</li> </ul>
			• On latter stages, incidence of little leaf of brinjal, shoot and fruit borer incidence altogether resulted in reduced fruit yield and plant mortality compared to the check hybrid.
			• They were not satisfied by the price of the fruit which they were able to get in Panruti market(Less than Rs.1/kg to check hybrid).
			• Farmer's feel that there's not a market preference for COBH2 Brinjal among the Cuddalore people.
			• To sum up, the OFT farmer's of Cuddalore were not willing to grow COBH2 due to less price and market preference in this region.

5.	Cotton – Implements	Demonstration of farm implements in rainfed cotton	<ul> <li>Rotavator (Tractor operated)</li> <li>The farmers were impressed with the operation of rotavator</li> </ul>
			<ul> <li>It performed primary and secondary tillage operation in one single operation to get deep well pulverized seed bed for good nourishment and anchorage of plants.</li> </ul>
			Bed cum Furrow Former
			Labours and time saving
			Timely operation
			Power weeder
			<ul> <li>It control the weed infestation in early stage and save the labours</li> </ul>
6.	Fish fingerlings	Popularization of fish culture in village ponds	The growth of commercial carp, batla, Mirgal performance was good
			• The net profit was also high. Hence this technology will be followed in future year also.

### 5. B.6.8. Extension and Training activities under FLD

SI.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	25	1435	-
2	Farmers Training	28	1158	-
3	Media coverage	244	-	-
4	Training for extension functionaries	34	1530	-

### PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No.	Area		Yield	(q/ha)		%	*Econo	omics of de (Rs./ha	emonstrat a)	tion	*E	conomics (Rs./h	of check ia)	
Breed	demonstrated	hybrid	Demo	(ha)		Demo		Check	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					н	L	А										
Paddy	Popularisation of new hybrid paddy	Co (R) H 3	10	5	51.00	42.00	45.61	42.80	6.66	13846	50382	36536	3.68	13526	43486	29960	3.24
Brinjal	Popularization of COBH2 Brinjal	COBH2	10	2	50820	42660	46740	56000	-16	1,00,000	1,80,000	80,000	1.80	1,00,000	2,75,000	1,75,000	2.75
Total																	

## PART VII. TRAINING

# 7.A.. Farmers' Training including sponsored training programmes (On campus)

Area of training	No. of Cour ses	No. of Participants									
		General			SC/ST			Grand Total			
		М	F	Total	М	F	Total	М	F	Total	
Crop Production											
Weed Management	5	40	12	52	20	10	30	60	22	82	
Resource Conservation Technologies	1	30	2	32	15	3	18	45	5	50	
Cropping Systems	2	20	15	35	10	5	15	30	20	50	
Crop Diversification	4	35	5	40	15	5	20	50	10	60	
Integrated Farming	1	10	-	10	5	-	5	15	-	15	
Micro Irrigation/Irrigation	13	320	20	340	140	20	160	460	40	500	
Seed production	5	92	2	26	6	5	9	98	7	105	
Nursery management	10	30	-	30	15	-	15	45	-	45	
Integrated Crop Management	2	20	10	30	15	5	20	35	15	50	
Soil and Water Conservation	1	16	5	21	12	8	20	28	13	41	
Integrated Nutrient Management	2	45	15	60	15	5	20	60	20	80	
Production of organic inputs	5	125	15	140	25	10	35	150	35	185	
Horticulture , a) Vegetable Crops											
Nursery raising	2	22	12	34	14	16	30	36	28	64	
Protective cultivation	4	95	15	110	50	30	80	145	45	190	
Agronomic practices	5	30	15	45	15	8	23	45	23	68	
b) Fruits											
Training and Pruning	1	25	10	35	10	5	15	35	15	50	

Rejuvenation of old orchards	1	10	25	35	10	10	20	20	45	65
Micro irrigation systems of orchards	2	60	25	85	30	10	40	90	35	125
Plant propagation techniques	1	20	15	35	10	10	20	30	25	55
c) Ornamental Plants										
Nursery Management	1	20	10	30	10	5	15	30	15	45
d) Plantation crops										
Production and Management technology	1	35	10	45	15	10	25	50	20	75
e) Tuber crops										
Production and Management technology	1	25	10	25	10	5	15	35	15	60
f) Spices	-	-	-	-	-	-	-	-	-	-
g) Medicinal and Aromatic Plants										
Post harvest technology and value addition	1	5	15	20	-	2	2	5	17	22
Soil Health and Fertility Management										
Soil fertility management	3	45	15	60	10	10	20	55	25	80
Integrated nutrient management	1	16	25	41	15	10	25	31	50	81
Production and use of organic inputs	1	10	15	25	10	5	15	20	20	40
Management of Problematic soils	2	25	10	35	10	10	20	35	20	55
Micro nutrient deficiency in crops	1	14	7	21	13	10	23	27	17	54
Soil and water testing	1	22	10	32	10	13	23	32	23	55
Livestock Production and Management										
Poultry Management	1	5	15	20	2	7	9	7	22	29

Others (pl.specify)Goat farming	1	27	25	52	7	-	7	27	32	84
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	25	10	35	5	5	10	30	15	45
Value addition	6	60	91	151	3	71	74	63	162	225
Agril. Engineering	-									
Farm machinery and its maintenance	2	25	15	40	10	10	20	35	25	60
Installation and maintenance of micro irrigation systems	5	25	10	35	15	5	20	40	15	55
Use of Plastics in farming practices	1	20	10	30	10	10	20	30	20	50
Plant Protection										
Integrated Pest Management	2	23	17	40	15	8	23	38	25	63
Production of bio control agents and bio pesticides	1	25	15	40	13	10	23	38	25	63
Fisheries	-	-	-	-	-	-	-	-	-	-
Integrated fish farming	1	15	10	25	7	6	13	22	16	38
Fish processing and value addition	1	14	7	21	10	9	19	24	16	40
Production of Inputs at site										
Vermi-compost production	1	10	15	25	10	5	15	20	20	40
Organic manures production	2	27	13	40	12	7	19	39	20	59
Production of livestock feed and fodder	2	35	16	51	24	19	43	59	35	94
Capacity Building and Group Dynamics										
Computer literacy training for farmers	4	22	14	36	5	5	10	27	19	46
TOTAL	111	1620	628	2170	683	422	1103	2296	1092	3438
# 7.B.. Farmers' Training including sponsored training programmes (Off campus)

	No. of				No. o	f Particip	pants			
Area of training	Cours		Genera	al		SC/ST	•	G	rand <sup>·</sup>	Total
	es	м	F	Total	М	F	Total	М	F	Total
Crop Production										
Weed Management	4	120	25	145	25	10	35	145	35	180
Resource Conservation Technologies	2	80	25	105	15	5	20	95	30	125
Integrated Farming	5	150	30	180	35	15	50	185	80	265
Micro Irrigation/Irrigation	13	320	20	340	140	20	160	460	40	500
Nursery management	1	30	10	40	10	5	15	40	15	55
Production of organic inputs	2	40	15	55	20	15	35	60	50	110
RajaRajan 1000 Techniques	4	200	25	225	30	15	45	230	40	270
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	2	25	15	40	30	10	40	55	25	80
Off-season vegetables	1	10	10	20	5	5	10	15	15	30
Nursery raising	1	15	10	25	10	10	20	25	20	45
b) Fruits										
Cultivation of Fruit	1	25	15	40	10	10	20	35	25	60
c) Ornamental Plants	-	-	-	-	-	-	-	-	-	-
d) Plantation crops										
Production and Management technology	1	45	10	55	10	5	15	55	15	70
Processing and value addition	1	25	10	35	15	10	25	60	25	85

Soil Health and Fertility Management										
Soil fertility management	2	38	19	57	15	13	28	53	31	84
Integrated water management	1	19	16	35	10	5	15	29	21	60
Management of Problematic soils	1	29	26	45	15	10	25	44	36	80
Soil and water testing	4	57	26	83	27	26	53	84	52	136
Livestock Production and Management										
Dairy Management	1	25	15	40	10	10	20	35	25	60
Production of Inputs at site										
Seed Production	2	28	19	47	8	6	14	36	25	61
Vermi-compost production	1	16	15	31	8	7	15	24	22	46
TOTAL	50	1297	356	1643	448	212	660	1765	627	2402

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

	No. of				No. c	of Partici	pants			
Area of training	Course		General			SC/ST		G	Frand Tot	al
	S	м	F	Total	М	F	Total	М	F	Total
Nursery Management of Horticulture crops	2	28	16	44	10	21	31	38	37	75
Seed production	1	15	7	22	15	2	17	30	9	39
Mushroom Production	5	25	10	35	15	10	25	35	20	60
Sericulture	1	16	8	24	9	7	16	25	15	40
Repair and maintenance of farm machinery and implements	2	25	20	45	10	10	20	35	30	65
Vermicompost Production	1	18	3	21	4	2	6	22	5	27
Value addition	2	3	26	29	7	19	26	10	45	55

Fish Value addition	3	9	22	31	4	6	10	13	28	41
Computer literacy training to farmers	1	8	-	8	4	-	4	12	-	12
TOTAL	18	147	112	259	78	77	155	220	189	414

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

					No. of	Partici	pants			
Area of training	No. of Courses		General			SC/ST		(	Grand Tot	al
		М	F	Total	м	F	Total	м	F	Total
Nursery Management of Horticulture crops	1	21	2	23	5	7	12	26	9	35
Commercial fruit production	1	18	4	22	9	5	14	27	9	36
Integrated farming	2	45	20	65	20	10	30	65	30	95
Seed production	5	25	5	15	10	10	20	35	15	40
Production of organic inputs	6	80	10	90	40	10	50	120	20	140
Planting material production	1	10	8	18	7	6	13	17	15	32
Vermi-culture	1	16	11	27	5	7	12	21	18	39
Mushroom Production	2	12	5	17	10	5	15	22	20	42
TOTAL	19	227	65	277	106	60	166	333	136	459

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

	No. of				No. c	of Partici	pants			
Area of training	Course		General			SC/ST		Ģ	Frand Tot	al
	S	М	F	Total	М	F	Total	М	F	Total
Productivity enhancement in field crops	4	41	2	43	11	-	11	52	2	54
Integrated Pest Management	8	250	40	290	80	12	92	330	52	382
Integrated Nutrient management	8	250	40	290	80	12	92	330	52	382
Production and use of organic inputs	1	19	7	26	21	13	34	40	20	60
Women and Child care	1	-	17	17	-	13	13	-	30	30
Livestock feed and fodder production	1	19	7	26	21	13	34	40	20	60
Household food security	1	-	30	30	-	12	12	-	42	42
Any other (pl.specify)	-	-	-	-	-	-	-	-	-	-
Total	24	579	143	722	213	75	288	792	218	1010

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

					No. c	of Partici	pants			
Area of training	No. of		General			SC/ST		G	Frand Tot	al
	Courses	м	F	Total	М	F	Total	М	F	Total
Productivity enhancement in field crops	2	65	10	75	15	5	20	80	15	95
Integrated Pest Management	1	35	10	45	30	10	40	65	20	85
Integrated Nutrient management	1	35	10	45	30	10	40	65	20	85
Rejuvenation of old orchards	-	-	-	-		-	-	-	-	-
Protected cultivation technology	4	60	25	85	25	10	35	85	35	120

Production and use of organic inputs	1	30	6	36	8	5	13	38	13	49
Care and maintenance of farm machinery and implements	1	25	1	26	7	2	9	32	8	40
Total	10	250	62	312	115	42	157	365	111	474

# 7.G. Sponsored training programmes

		No. of				No. of	i Parti	cipants			
S.No	Area of training	Courses	(	Gener	al		SC/S	Г	Gr	and T	otal
-			М	F	Total	м	F	Total	М	F	Total
1	Crop production and management										
1.a.	Increasing production and productivity of crops	10	213	15	228	157	15	172	370	30	400
2	Production and value addition	-	-	-	-	-	-	-	-	-	-
3.	Soil health and fertility management	1	29	4	33	5	2	7	34	6	40
4	Production of Inputs at site	2	26	4	30	27	13	40	53	17	70
5	Methods of protective cultivation	-	-	-	-	-	-	-	-	-	-
6	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
7	Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
7.a.	Processing and value addition	1	10	15	25	2	3	5	12	18	30
12	Agricultural Extension										
12.a.	Capacity Building and Group Dynamics	-	-	-	-	-	-	-	-	-	-
12.b.	Gender sensitization modules	2	30	10	40	5	5	10	35	15	50
	Total	16	308	48	356	196	38	234	504	86	590

# Details of sponsoring agencies involved

- 1. Government of Tamil Nadu sponsored NADP Precision Farming Project
- 2. National Committee on Plasticulture Applications in Horticulture, GOI, New Delhi
- 3. District Poverty Alleviation Programme, Cuddalore
- 4. Indian Institute of Crop Processing Technology, Tanjore
- 5. Directorate of Cashew and Cocoa Development Board, Cochin
- 6. National Bamboo Mission, New Delhi
- 7. Commissionarate of Horticulture, Chennai
- 8. NABARD

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

						No. of	Partic	ipants			
S.No	Area of training	No. of		Genera	al		SC/ST	Г	Gr	and To	otal
•		Courses	М	F	Total	М	F	Total	М	F	Total
1	Crop production and management	-	-	-	-	-	-	-	-	-	-
1.a.	Commercial floriculture	-	-	-	-	-	-	-	-	-	-
1.b.	Commercial fruit production	-	-	-	-	-	-	-	-	-	-
1.c.	Seed production	1	20	-	20	2	-	2	20	-	20
1.d.	Integrated crop management	-	-	-	-	-	-	-	-	-	-
1.e.	Organic farming	1	18	3	21	4	2	6	22	5	27
1.f.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
2	Post harvest technology and value addition										
2.a.	Value addition	2	69	8	77	9	5	14	28	13	91
2.b.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
3.	Livestock and fisheries	-	-	-	-	-	-	-	-	-	-
4.	Income generation activities										
4.a.	Vermi-composting	1	18	3	21	4	2	6	22	5	27
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-
4.c.	Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-

4.d.	Rural Crafts	-	-	-	-	-	-	-	-	-	-
4.e.	Seed production	1	48	-	48	2	-	2	50	-	50
4.f.	Sericulture	-	-	-	-	-	-	-	-	-	-
4.g.	Mushroom cultivation	1	14	2	16	6	3	9	20	5	25
5	Agricultural Extension										
5.a.	Capacity building and group dynamics	-	-	-	-	-	-	-	-	-	-
5.b.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
	Grand Total	7	187	16	203	27	12	39	162	28	240

# PART VIII – EXTENSION ACTIVITIES

# Extension Programmes (including activities of FLD programmes)

Nature of Extension	No. of Programmes	No. d	of Particip (General)	oants	No.	of Partici SC / ST	pants	No.of extension personnel			
Programme	riogrammes	М	F	Total	М	F	Total	М	F	Total	
Field Day	25	267	275	542	236	198	434	256	178	434	
Exhibition	22	421	289	710	362	299	661	279	196	475	
Method Demonstrations	148	1324	967	2291	850	765	1615	95	76	171	
Farmers Seminar	6	234	167	401	176	134	310	29	13	42	
Workshop	15	212	165	377	76	82	158	312	157	469	
Group meetings	25	1034	765	1799	497	268	765	113	72	185	
Lectures delivered as resource persons	46	1324	1165	2489	486	394	880	215	101	316	
Newspaper coverage	56	-	-	-	-	-	-	-	-	56	
Radio talks	18	-	-	-	-	-	-	-	-	18	
Popular articles	45	-	-	-	-	-	-	-	-	45	

Extension Literature	125	-	-	-	-	-	-	-	-	125
Advisory Services	150	4356	3215	7571	2316	2110	4426	346	287	633
Scientific visit to farmers field	157	665	378	1043	167	59	226	89	27	116
Farmers visit to KVK		3276	2861	6137	1170	453	1623	82	46	128
Diagnostic visits	238	2590	2144	4734	1248	1031	2279	34	25	59
Exposure visits	22	731	456	1187	521	327	848	122	26	148
Soil health Camp	26	789	456	1245	378	214	592	48	38	86
Animal Health Camp	3	126	46	172	97	48	145	43	18	61
Soil test campaigns	26	789	456	1245	378	214	592	48	38	86
Farm Science Club Conveners meet	16	237	156	393	128	96	224	-		633
Self Help Group Conveners meetings	49	389	276	665	211	140	351	-	-	1065
Total	1218	18764	14237	33001	9297	6832	16129	2111	1298	5351

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

# 9.A. Production of seeds by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)						
Oilseeds						
Pulses						
Commercial crops	Cashew	VRI 3		104 Kg	6500	20
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops	Cumbu Napier grass	Co4		10000	4000	20

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

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial	Cashew	VRI 3		17800	3,20,400	500
	Cashew		VRI (Cw) H 1	400	7.200	10
Vegetable seedlings	Brinjal		COBH2	20000	10,000	20
	Chillies	Local		4000	2,000	10
Fruits	Jack	PLR 2		50	1,250	25
Ornamental plants	Rose	Local		350	3,50	35
	Crotons	Local		500	5,000	58
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings	Cumbu Napier grass	CO4		10000	4,000	20
Forest Species	-	-		-	-	-
Others(specify)	Red gram Seedling	CO (Rg)7		5000	7,500	10
Total				58100	57,406	688

# 9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers	-	-	-	-
Bio-pesticide	-	-	-	-
Bio-fungicide	-	-	-	-
Bio Agents	-	-	-	-
Others (specify)	Vermicompost	1500 Kg	7500	2
Total		1500 Kg	7500	2

# 9.D. Production of livestock materials

Particulars of Live stocl	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals	-	-	-	-
Poultry	-	-	-	-
Broilers				
Layers	Rhodo white chicken Eggs	300	1800	30
Duals (broiler and layer)				
Total		300	1800	30

# 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.)

Date of start	: 2006
Periodicity	: Quarterly
Number of copies distributed	: 500 copies

# (B) Literature developed/published

Item	Title	Authors name	Number
Research papers			
Technical reports			
News letters	April-Jun, Jul-Sep, Oct-Dec		4
	and Jan-Mar		
	Fruits and	Dr.S. Kannan	1
	vegetable		
	preservation		
	Fish value addition	Dr.S. Kannan	1
	Cashew apple	Dr.S. Kannan	1
	value addition		
	Milk product	Dr.S. Kannan	1
	preparation		
	Quality seed	Dr.V.Vijaya geetha	1
	production in		
	groundnut		
Technical bullating	Soil and water	Dr.V.Dhanushkodi	1
recrimical bulletins	testing manual		
	Rajarajan 1000	Dr.P.Arutchenthil	1
	techniques		
	Computer manual	Dr.S.Haripriya	1
	Mushroom	Dr.M.Raju	1
	cultivation		
	techniques		
	<b>N</b> 11/		
Popular articles	Nitrogen	Dr. K. Subrahmaniyan	2
	management in	and Dr.V.Dhanushkodi	
	rice		
	Importance of S in		
Entereine literature	agricuiture		
Extension literature			
Others (PI. specify)			
TOTAL			13

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

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
-	-	-	-

# 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).

#### Food Processing and value addition

The vocational training programme on "Food processing, preservation and value addition" conducted in Krishi Vigyan Kendra, Vriddhachalam since 2009 -10 for the benefit of farm women, rural youth, school dropouts and farmers. Totally 21 days vocational training programme were organized and 30 participants were trained in Food production technologies such as importance of food processing, preservation and value addition of fruits and vegetables, instant food powder, pickle preparation, vathal and vadagm preparation, packing, labeling demand and marketability, maintenance of food product storage keeping quality, maintenance of building, and management marketing strategies etc..

#### **Pre-evaluation for trainees**

Before conducting "Food processing, preservation and value addition" training, pre-evaluation were made through oral discussion and conducting simple test about the advantages food processing, preservation and value addition of fruits and vegetables, food product storage keeping quality.

#### Post -evaluation for trainees

After completion of training programmes post evaluation was carried out through group discussion, individual presentation, identification of specimens, objective type and descriptive test. The results of the pre and post evaluation of the trainees revealed that about 75 -80 % of the trainees were found unaware about the features food processing, preservation and value addition under controlled condition and 95% of the trainees were found to gain knowledge on the food production technologies respectively.

#### Followup after the training programme

#### Successes story of trainees

Mrs. R. Suganthi 35 year old woman live in Neyveli township, Cuddalore district. She underwent the vocational training programme on "Food processing, preservation and value addition" conducted by Krishi Vigyan Kendra, Vriddhachalam. After the training she started a small unit with daily preparation of food products like pickles, jam and masala powder 10 -20 kg/day at house hold level and earned Rs.500/month. Yet, she was not able to sell the products continuously within a specified period of time and faced a lot of difficulties. At that time, the Krishi Vigyan Kendra advised her to start small scale industry and develop good quality of food products and attractive label. Now she started selling

her product in brand name "Jayam Home Made Products" and earning Rs. 10,000/month. She is now doing successfully the business. The KVK, Vriddhachalam is promoting the enterprises through technical back stopping and facilitating of stall for exhibition in major agricultural fare.

Based on the vocational training the participants have formed a society namely Cuddalore District value added food product welfare association registered under society registration act of Tamil Nadu Government. The society having 20 active members and they have started one small scale industry for preparation of food product such as pickles, tomato conserve, vathal kulambu, and masala powder in every day. The unit is society situated at Puthukooraipetai village. Now they are selling their food products specifically to engineering college and school hostel in addition to local market. Because of hygienic preparation and high sensory qualities. The product is gradually popularized among the educational institution. Now the society members are planning to extend this business on a large scale.

#### New Rice variety ANNA-4 in Drought prone areas

The Cuddalore district has considerable area under rainfed rice especially Nallur, Mangalore blocks and also part of Bhuvanagiri and Vriddhchalam block during samba season. Generally, the farmers gets very low yield mainly under rainfed situation due to use of local varieties and poor maintenance. The locally available kar (Red) rice variety fetches low market value.

#### **KVK** intervention

KVK has introduced new drought tolerant variety ANNA 4 to this rainfed areas under FLD programme during Samba 2010-2011. The farmers were trained in improved production technologies for rainfed rice and also they were explained about the performance of ANNA 4 paddy variety. The FLD programme was conducted in Sathiyam and Vaiyankudi areas.

#### Demonstration

The demonstration was conducted in 10 locations of Vridhachalam and Nallur blocks. The major soil type of field is sandy loam. The crop was raised in first week of October 2010. All the recommended package practices were followed and the crop was harvested on first week of January 2011.

#### Economics

	Yield I	kg/ha		Cost of cultiv	ation (Rs./ha)	Net retu	rn (Rs./ha)	BC	ratio
Location	ANNA 4	Kar rice	% increase	ANNA 4	Kar rice	ANNA 4	Kar rice	ANNA 4	Kar rice
1.	3450	2700	27.78	8867	13200	11385	7155	2.28	1.54
2.	2890	2450	17.96	16200	14200	9248	6493	1.57	1.46
3.	3320	2680	23.88	15930	13250	11321	7102	1.71	1.54
4.	3500	2640	32.58	14770	12900	10885	6996	1.74	1.54
5.	3890	3100	25.48	14520	15240	11787	8215	1.81	1.54
6.	3750	3000	25.00	13360	11200	12375	7950	1.93	1.71
7.	3600	2900	24.14	13610	12540	11880	7685	1.87	1.61
8.	3470	2900	19.66	16020	14000	11451	7685	1.71	1.55
9.	3680	3050	20.66	9458	13980	12144	8083	2.28	1.58
10.	3750	3100	20.97	9638	14750	12375	8215	2.28	1.56
Mean	3530	2852	23.81	13237	13526	11485	7557	1.92	1.56

#### Feed back

The farmers were impressed with the performance of ANNA 4 in terms of establishment, tiller production and non lodging characteristic until harvest etc.

#### The advantages found by farmers

- 1. The duration (105 days) of ANNA 4 was reduced by 15-20 days compared to local Kar (130 days)
- 2. The variety ANNA 4 was non lodging.
- 3. ANNA 4 variety has slender white rice compared local kar (red bold).
- 4. ANNA 4 fetches more market value than local kar (red bold).

#### Horizontal spread

All the farmers were advised to keep the seeds for next season and also action has been taken to distribute the variety to the other needy farmers (15- 20 farmers) in the same village.

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

# **Rural Youth Key Informant**

We are conducting off campus training in all crops in different villages. Through this off campus training we are identifying interested rural youth in agriculture and train them as key informant for Krishi Vigyan Kendra activities in that village in addition to FSC conveners and progressive farmer. We have started during 2004-05. During the year 2007-08, 15 numbers of interested rural youths have been identified and So far we have identified 64 numbers of interested rural youth key informants.

# 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	
-	-	-	-	

# 10.F. Specific training need analysis tools / methodology followed

# Identification of courses for farmers / farm women

- Farm science club conveners meeting
- > Identification of target groups was done based on their needs
- Monthly zonal work shop
- > SAC meetings
- > Conducting off campus training / demonstration
- Questionnaire method / Contact letter
- Village meetings
- Personal contact / Field visits
- > Discussion with farmers and farm advisory visit

#### **Rural youth**

- Personal contact
- Identification of target groups was done based on their needs
- Contact letters
- Progressive farmers
- FSC conveners meetings

#### In service personnel

- > Collaborative meeting with line departments
- > Discussion with extension functionaries during the monthly zonal workshop
- > Collaborative meeting with line departments

#### 10 G. Field activities

(i)	Number of villages adopted	28
(ii)	Number of farm families selected	405
(iii)	Number of survey / PRA conducted	65

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

Status of establishment of Lab : Functioning

1. Year of establishment : 17.06.2005

2. List of equipments purchased with amount :

SI. No	Name of the Equipment	Qty.	Cost
1	pH meter	1	7344.00
2	EC meter	1	7344.00
3	Kjeldhal digestion and distillation plant	1	24589.00
4	Scanning visible spectro photometer	1	75072.00
5	Flame photometer	1	36720.00
6	Water distillation still-mini quartz distiller	1	26117.73
Total			177186.7

#### 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	1,991	1,862	502	49,775
Water Samples	1,290	1,290	166	12,900
Plant samples				
Manure samples				
Others (specify)				
Total	3,281	3,152	668	62,675

Details of samples analyzed during the 2010-11:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	550	425	328	13750
Water Samples	550	550	425	5500
Plant samples				
Manure samples				
Others (specify)				
Total	1100	975	753	19250

10.I. Technology Week celebration - Nil

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

# PART XI. IMPACT

6	S Name of apositio toobpology/skill		0/ of	Change in i	ncome (Rs.)
S. No.	transferred	trainees	adoption	Before training (Rs./Unit)	After training (Rs./Unit)
1.	Value added products preparation	220	11.36	500 / month	1300 / month
2.	Crossandra seedling production	45	37.78	50,000 / year	1,50,000 / year
3.	Seed production	28	14.29	15000/ year	30,000/ year
4.	Mulberry production & silk worm rearing	45	8.89	-	40,000 / month
5.	Mushroom production	290	8.62	1000 / month	3000 / month
6.	Vermicompost preparation	60	11.66	1500/ month	2500 / month
7.	Horticultural nursery techniques and vegetable seed production	65	15.38	30,000 / year	1.0-1.25 lakhs/year
8.	Fruits preservation	365	12.33	Rs 700 / month	2000 / month
9	Cashew grafting techniques	124	12.10	-	25,000 / Year
10	Home care products preparation (Phenoyl, agarbathi, computer sambirani, cleaning washing, powder and herbal oil)	370	13.51	750 / month	1500 / month
11	Tailoring & embroidering	250	11.20	-	1500 / month

# 11. A. Impact of KVK activities : Training (NOT RESTRICTED TO REPORTING PERIOD)

# 11B. Cases of large scale adoption (not restricted to reporting period) Outcome and impact in select areas

Six areas are presented for the purpose of discussion here (Table below). It may be seen that the technology deliverables, complexities of the technology and farmers perception have greatly influenced the adoption and the sum total outcome.

S. No.	Activities	Expected outcome	Impact	Horizontal spread
1	Introduction of new rice variety ADT 43/CO 43/Improved white ponni	<ul> <li>Higher yield than local</li> <li>Less duration</li> <li>Non lodging</li> <li>Suitable for normal season</li> <li>Increase in area adoption through FLD and trainings connected</li> </ul>	16-20 per cent higher yield than local/ ADT 36 and replaced older varieties	Normal paddy area in the district is 1.027 lakh ha. On an average 11-14 cultivars are grown during kuruvai and samba seasons. ADT 43 released in 1998 cultivation spread to 10750, 12200 and 13000 ha during 2004-05, 05-06 and 06-07. White ponni stood at 38000-40000 ha while CO43 cultivation ranged from 4000-4500 ha during these years (Source: KVK, Vriddhachalam2008)
2	System of Rice Intensification popularization	<ul> <li>Low seed rate</li> <li>Low water requirement</li> <li>Transplanting at wider spacing young seedlings</li> <li>Non lodging</li> <li>Suitable for normal season</li> <li>Increase in area adoption through FLD and trainings connected</li> </ul>	The main season samba has been brought under SRI cultivation method in 13 blocks replacing conventional method	A separate report is given in following section
3	Direct sown seed drill	<ul> <li>Less seed rate</li> <li>No nursery crop</li> <li>Time saving</li> <li>Easy to operate</li> <li>Less drudgery</li> <li>Increase in area adoption through FLD and trainings connected</li> </ul>	A separate report is appended	A separate report is appended
4	Adoption of improved cashew variety, VRI 3	<ul> <li>High yield</li> <li>Replacement of old cashew garden</li> <li>Export value</li> <li>Increase in area</li> </ul>	<ul> <li>6-7 nursery units has been established</li> <li>500- 750 kg increased yield/ha</li> <li>VRI 3 is preferred</li> </ul>	<ul> <li>5000-6000 ha cashew area has been replaced with new variety</li> <li>Newer avenues for gainful self</li> </ul>

# Horizontal spread of technologies and large scale adoption - select examples

		adoption through trainings connected		for export market		employment created
5	Flower crops	<ul> <li>Replacement of traditional crops</li> <li>High income/unit area</li> </ul>	A A	Flower crops occupies 80-100 ha in Vegakollai village Rs 40,000 – 50,000/ ha		Employment opportunities for 100-150 man days for women
6	Vermicompost production	<ul> <li>Utilization of available farm waste</li> </ul>		15-20 vermicompost units were established	>	150 tonnes of vermicompost produced
	)	<ul> <li>Reduction in usage of inorganic fertilizers</li> </ul>	۶	Farmers are producing 500 – 4000 kg / unit in 45		200 farmers in and around villages were
	<ul> <li>Increased yield days and quality of produce</li> <li>Improvement in soil health</li> <li>Enhand</li> </ul>		days Keeping quality of the fruit is		started using vermicompost	
			$\blacktriangleright$	Increased Enhanced the early		
	)	<ul> <li>S0 Vermicompost unit anticipated</li> </ul>		flowering in Moringa		

# 1. Training on focus crops in Cuddalore Dt.- National Horticulture Mission sponsored programme

Under this scheme trainings to farmers were given on focus crops in horticulture. This scheme concentrated on providing advanced training in cultivation of horticulture crops to 2576 farmers in the District. The trainee farmers from all six taluks had exposure to various crops cultivation. The details of training imparted are furnished below. During a follow up training, selected cashew farmers have expressed difficulty in cashew pest management. The KVK is following it with FLD on Integrated crop management practices (Action Plan Document 2009-10). At present the concept of scientific cultivation of cashew and banana is picking up on a large scale in the district.

S.No.	Category	Numbers							Per cent		
				Crops					Crops		
		Cashew	Mango	Banana	Chillies	Flower	Cashew	Mango	Banana	Chillies	Flower
1	Illiterate	155	4	43	14	19	9.35	6.45	6.99	11.67	15.08
2	1-5 <sup>th</sup> standard	449	12	166	27	35	27.08	19.35	26.99	22.50	27.78
3	6-10 <sup>th</sup> standard	807	27	283	56	48	48.67	43.55	46.02	46.67	38.10
4	HSc	111	9	52	17	14	6.69	14.52	8.46	14.17	11.11
5	Diploma	29	0	22	1	3	1.75	0	3.58	0.83	2.38
6	Collegiate	107	10	49	5	7	6.45	16.13	7.97	4.17	5.56
	Total	1658	62	615	120	126	100.00	100.00	100.00	100.00	100.00

# Educational status of the trainees

# Farm status of trainees

S.No.	Category		Numbers						Per cent		
			Crops					Crops			
		Cashew	Mango	Banana	Chillies	Flower	Cashew	Mango	Banana	Chillies	Flower
1	OC	1	0	8	0	1	0.06	0	1.30	0	0.79
2	BC	217	23	124	43	95	13.09	37.10	20.16	35.83	75.40
3	MBC	1277	35	449	71	21	77.02	56.45	73.01	59.17	16.67
4	SC/ST	163	4	34	6	9	9.83	6.45	5.53	5	7.14
	Total	1658	62	615	120	126	100.00	100.00	100.00	100.00	100.00

#### iii) Seed Village Scheme –sponsored by GOI

In this scheme, trainings were imparted to the selected farmers of Cuddalore district so as to empower them on the right technologies of quality seed production in paddy, blackgram sesame, Groundnut crops. Skill trainings are on the method of good seed separation, seed treatment, sowing and planting methods for seed production. Besides, rogueing of weeds and unwanted plants were sensitized to the farmers by field level demonstration. Importance of nutrient management for crops to produce quality seeds was also stressed to the farmers. Integrated pest and disease management techniques in the specified crops were demonstrated and sufficient practical skill to identify the pest and disease damage symptoms identification of pests, natural enemies and the control methods were also demonstrated to the farmers. With regard to the seed distribution of paddy, groundnut, sesame and blackgram, seeds were distributed to the selected trained farmers at 50 percent subsidy to an area of 1 acre per farmer.

S.	Seed Village	Crop	Variety	Area (ha)	Qty. (Kg)	Total
No.	_	_	_			farmers
1.	Kolapakkam	Sesame	VRI1	20	100	50
2.	Pottaveli	Sesame	VRI1	20	100	50
3.	Kattiyankuppam	Sesame	TMV4	20	100	50
4.	Erappavur	Paddy	ADT39	20	1250	50
5.	Anukampattu	Paddy	ADT39	40	2500	100
6.	Karmangudi	Paddy	ADT43	48	3000	120
7.	Thoravallur	Paddy	ADT43	20	1250	50
8.	T. Agaram	Paddy	CR1009	32	2000	80
9.	Pallineerodai	Paddy	White ponni	40	2500	100
10.	Asakalathur	Paddy	White ponni	24	1500	60
11.	Kanchirangulam	Paddy	White ponni	40	2500	100
12.	Sri Athivaraganallur	Black gram	VBN3	40	800	100
13.	Karaimedu	Paddy	ADT43	40	3000	120
14.	Kolakkudi	Paddy	ADT43	48	3000	120
15.	Thorankuppam	Paddy	ADT43	48	3000	120
16.	Thettampattu	Paddy	ADT43	35	2000	88
17.	Edankondanpattu	Paddy	IR50	12	750	30
18.	Nagarapadi	Black gram	VBN4	31	632	79
19.	Kumaramangalam	Groundnut	VRI2	11	1125	28
20.	Ambapuram	Paddy	ADT43	48	3000	120
21.	Rajendrapattinam	Paddy	White ponni	40	375	50
	Total			677	34482	1665

#### Implementation of seed village scheme in Cuddalore Dt.

The farmers are successfully using the seeds scientifically. Large scale studies are underway.

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

# a. Impact of KVK activities: Training

				Change in income (Rs.)			
S. No.	Name of specific technology/skill transferred	No. of trainees	% of adoption	Before training (Rs./Unit)	After training (Rs./Unit)		
1.	Mushroom production & Bio control agents production	20	40	Rs 1500/ month	Rs 4500 per month		
2.	Value addition	30	50	-	Rs 1000 per month		
3.	Seed production	25	10	Rs 2000 per month	Rs 5000 per month		
4	Vermicompost production	18	20	-	Rs 2000 per month		

# b. Impact analysis of KVK activities

S. No.	Activities	Expected outcome	Impact
1	Seed village scheme	<ul> <li>Quality seed production</li> <li>Higher price</li> </ul>	<ul> <li>One of the farmer converted in to seed grower</li> <li>Self sustain of seed materials in the village</li> <li>10-15 additional price per kg of seed</li> </ul>
2	Mechanization of maize hybrid	<ul> <li>Less cultivation cost</li> <li>Time saving</li> </ul>	<ul> <li>&gt; 10-15 man power is saved per ha</li> <li>&gt; Rs 500 is saved</li> <li>&gt; 40 per cent of maize growers are using the mechanical planter</li> </ul>
3	Bt cotton demonstration	<ul> <li>Reduced chemical spray</li> <li>Increased yield</li> </ul>	<ul> <li>No. of chemical spray reduced.</li> <li>25 per cent increased yield</li> </ul>
4	Tapioca foliar nutrient management	<ul> <li>Rectifying the micro nutrient deficiency</li> <li>Increased yield</li> </ul>	<ul> <li>Foliar spray of micro nutrients rectified the nutrient deficiency</li> <li>Yield increased by 5-10 per cent</li> </ul>

# PART XII – LINKAGES

#### **12 A. FUNCTIONAL LINKAGES**

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
Dept. of Agriculture	<ul> <li>Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization</li> <li>Mid model Model Model Model along</li> </ul>
	Mid monthly and Monthly Zonal Workshop
	♦ FLD – Field day
	Participated in the training programme
	Watershed & Waste land development programme
	Seedling supply
	District level farm improvement committee
	In service training to AUs /AAUs
	Off campus training programme
	Farm advisory services
	Seed farm- seed production meeting
	Precision farming project
Dept. of Horticulture	<ul> <li>Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization</li> </ul>
	<ul> <li>Off campus training programme</li> </ul>
	<ul> <li>Collaborative training programme</li> </ul>
	<ul> <li>Seedlings supply</li> </ul>
	Demonstration
	<ul> <li>NHM training on cashew, mango, banana, chillies and loose flowers</li> </ul>
	<ul> <li>Precision farming project</li> </ul>
Annamalai University,	<ul> <li>Rural agricultural work experience programme</li> </ul>
Chidambaram	<ul> <li>U.G. and P.G. students visit to KVK</li> </ul>
	♦ Training to VVV clubs
TANUVAS, UTRC, Cuddalore	<ul> <li>Resource persons for training</li> </ul>
Agricultural Extension Wing,	♦ Off campus training
Department of agriculture	<ul> <li>Seed supply &amp; Watershed development</li> </ul>
(TANCOF)	<ul> <li>Training on oil seed production technology</li> </ul>
	<ul> <li>Training on oilpalm cultivation</li> </ul>
	<ul> <li>Training on polythene film mulching</li> </ul>
Department of Animal husbandry	Advisory service
Collectorate, Cuddalore	Grievance day meeting
	<ul> <li>NLC expansion programme-alternate employment for displaced riots</li> </ul>
	<ul> <li>Agricultural production council meeting</li> </ul>

	<ul> <li>Special team constituted by District collector to evaluate the sugar factory effluent treatment and gravel quarry of plantations</li> <li>Periodical technical / consultative meeting</li> </ul>
Mahalir Thittam / DRDA	♦ Sponsored training
Cuddalore	♦ SGSY – SHG training
	<ul> <li>Skill up-gradation programme</li> </ul>
	♦ Vazhalnthukattuvom project
Higher Secondary Schools	♦ Awareness campaign
	♦ NSS campaign
NGOs	<ul> <li>Awareness campaign</li> </ul>
	♦ Training programme
	♦ Demonstration
NABARD, Cuddalore	♦ Farmers group discussion
	♦ TTC meetings
	♦ Trainings to farmers
Agriculture Engineering Dept.	<ul> <li>Rain water harvesting programme</li> </ul>
Govt. of Tamil Nadu	♦ Seedlings supply
	<ul> <li>Training on agricultural implements and river basin development</li> </ul>
ZRC, Coimbatore	<ul> <li>Training on power tiller operation, maintenance and its attachments</li> </ul>
	♦ Implements supply
FC & RI, Mettupalayam	♦ Students RAWE programme
Dept. of Millets, TNAU,	♦ FLD in kodomillet and maize
Coimbatore	♦ Seed supply
Dept. of Forage crops, TNAU, CBE	♦ FLD and OFT on forage crops
NGO- KVKs	♦ Training and exposure visit
	<ul> <li>Seed materials supply &amp; FLD / OFT discussion</li> </ul>
WTC, Tamil Nadu Agricultural	Drip and sprinkler unit supply
University, Coimbatore	♦ Technical support
	♦ Training on micro irrigation
Indian Bank, Vriddhachalam	♦ Training programmes
Government of Pondicherry	<ul> <li>Precision farming project – Consultancy</li> </ul>

# 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.)
-	-	-	-

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

#### a) Is ATMA implemented in your district: Yes

ATMA was implemented in Cuddalore district from the financial year (2007-08). The orientation workshop for newly ATMA implemented district was conducted by Directorate of Agriculture, Government of Tamil Nadu during 22-23rd, August, 2007 at Vellore. SREP training was conducted to trainers during 22.10.07 to 27.10.07. ATMA implementing team meeting was conducted to prepare the action plan for the year 2008-09 at Joint Director of Agriculture office, Cuddalore. Agro Ecological Situation for Cuddalore district was also formed. During the period under report the following activities were taken up.

1. Monthly meeting of ATMA Block level technology team: All the thirteen block level officers conducted the monthly meetings in which KVK scientists participated. Totally 39 meetings were conducted.

2. District Advisory and Governing Board Meetings: Five meetings were conducted in which the Programme Coordinator participated as member

3. Completion of SREP: The KVK assisted in completion of SREP and document was submitted to State Level Committee.

4. Empowerment programmes under ATMA: The scientists of KVK in each Block level technology team participated in technology transfer programmes.

5. Facilitation of Exposure Visits: Exposure visits were arranged by the KVK for 4 Block farmers to State and National Level institutes, besides exposure visits to 11 KVKs in Tamil Nadu, Karnataka and Kerala.

6. AES delineation: As per request of the District machinery, separate meeting was conducted for AES delineation in which scientists of KVK, Regional Research Station, Vriddhachalam participated.

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	Block level meeting	10	-	-
02	Research projects	-	-	-	-
		-	-	-	-
03	Training programmes	Rice fallow pulses	-	2	-
		-	-	-	-
04	Demonstrations	-	-	-	-
		-	-	-	-
05	Extension Programmes	-	-	-	-
	Kisan Mela	-	-	-	-
	Technology Week	-	-	-	-

#### Coordination activities between KVK and ATMA during 2010-11

	Exposure visit	-	-	-	-
	Exhibition	-	-	-	-
	Soil health				
	camps	-	-	-	-
	Animal Health	_	_	_	_
	Campaigns	-	-	-	-
	Others (Pl.	_	_	_	_
	specify)	-	-	-	-
06	Publications	-	-	-	-
	Video Films	-	-	-	-
	Books	-	-	-	-
	Extension	_	_	_	_
	Literature	-	-		_
	Pamphlets	-	-	-	-
	Others (PI.	_	_	_	_
	specify)	_	_	_	_
07	Other Activities	-	-	-	-
	(PI. specify)				
	vvatersned	-	-	-	-
	Integrated Farm	-	-	-	-
	Agri-preneurs	-	-	-	-
	development				
		-	-	-	-

# 12.D. Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any
-	-	-	-	-	-

# 12.E. Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
-	-	-	-	-	-

#### 12.F. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
-	-	-	-	-	-

# 12. G. Kisan Mobile Advisory Services (by way2sms.com)

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2010	22	100	-
Мау	21	75	-
June	18	105	-
July	15	85	-
August	26	96	-

September	16	85	-
October	24	100	-
November	20	102	-
December	22	69	-
January 2011	15	98	-
February	18	65	-
March	18	98	-

# PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

# 13.A. Performance of demonstration units (other than instructional farm) : Nil

				Details of production			Amount (Rs.)		
SI. No.	Demo Unit	Year of establishment	Area (ha)	Variety	Produce	Qty.	Cost of inputs	Gross income	Remarks
-	-	-	-	-	-	-	-	-	-

# 13.B. Performance of instructional farm (Crops) including seed production : Nil

				Details	of product	ion	Amou	nt (Rs.)	
Name of the crop	Date of sowing	Date of harvest	Area (ha)	Variety	Type of Produce	Qty.	Cost of inputs	Gross income	Remarks
Cereals	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Oilseeds	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Fibers	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Spices & Planta	ation crops	6							
	-	-	-	-	-	-	-	-	-
Floriculture	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
Others (specify)									
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-

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

SI.	Name of the		Amou	nt (Rs.)	
No. Product	Product	Qty	Cost of inputs	Gross income	Remarks
1.	Vermicompost	1500 kg	Rs.5 / kg	Rs.7500/-	-

13.D.	Performance of instructional farm	livestock and fisheries	production)	) : Nil
				6

Name		Details of production			Amou		
SI. No	of the animal / bird / aquatics	Breed	Type of Produce	Qty.	Cost of inputs	Gross income	Remarks
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

# 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 2010	-	-	-
May 2010	-	-	-
June 2010	-	-	-
July 2010	-	-	-
August 2010	-	-	-
September 2010	-	-	-
October 2010	-	-	-
November 2010	260	4days	-
December 2010	40	2 days	-
January 2011	-	-	-
February 2011	120	2 days	-
March 2011	840	9 days	-

# 13.F. Database management

S. No	Database target	Database created
1	Resource inventory of the district	Completed
	1. Nine fold classification of land	
	2. Number and size of operational holdings	
	3. Weather parameters of the district (for minimum 10 years)	
	4. Details of soil profile	
	5. Detailed cropping pattern (for minimum 10 years)	
	6. Area, production and productivity of major crops	
	7. Details of livestock wealth of district	
	8. Production and productivity of livestock produces	
	9. Area under irrigation from different sources	
	10. Seasonal availability of labour	
	<ol> <li>Trend in wholesale price of major crop and livestock products (for minimum 10 years)</li> </ol>	
	12. Details of input agencies	
	<ol> <li>Details of infrastructural facilities available for production, post harvest and marketing</li> </ol>	
	14. Details of institutional credit facilities	
	15. Any other relevant to district	
2	Farmers database	Completed
	Details of farmers	
3	Technology inventory for the district	Completed
	Details of suitable technologies for a district with their details	

4	Database for technologies assessed and refined Technologies taken up for assessment and refinement with their attributes	In progress
5	Frontline demonstrations database Details of crops and enterprises along with technologies identified for demonstration	In progress
6	Training database Details of training programmes across all categories and types of participants	In progress
7	Database of extension programmes Details of extension activities conducted with types of participants	In progress
8	Seeds and Planting material database Details of crops along with varieties produced and sold	In progress
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	In progress

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demo.	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
	1								

# 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	Vriddhachalam	954	Main	11074361787		SBIN0000954
With KVK				Rev. Fund	11074361743		SBIN0000954
				Rev.Buil.	11074361754		SBIN0000954
				IAMWARM	31149396300		SBIN0000954

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

S. No	Items / Head	Opening balance if any	Remittance by ZPD VIII Bangalore	Actual expenditure dubitable to	Closing balance if any	Remarks
1	Production Technology	- 50 ha				
-		- 50 na				
	b. POL, hiring	98381	-	-	-	-
	venicie, Kisan					
	melas, printed					
	materials,					
	reports,					
	demonstration					
	boards					
	Total	98381	-	-	-	-
2.	Farm Implements - 75 h	а				
	a. New	-	-	-	-	-
	equipments					
	b. Contingencies	-	-	2500	100881	-
	Total	98381		2500	100881	

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Re	curring Contingencies			
1	Pay & Allowances	4500000	4416119	6494729
2	Traveling allowances	125000	125000	125000
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	200000	200000	199967
В	POL, repair of vehicles, tractor and equipments	160000	160000	160000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	100000	100000	99950
D	Training material (posters, charts, demonstration material including chemicals etc. required for	40000	40000	40000

	conducting the training)			
Е	Frontline demonstration except oilseeds and pulses			
	(minimum of 30 demonstration in a year)	195000	195000	195000
F	Frontline demonstration	-	-	-
G	On farm testing (on need based, location specific and			
	newly generated information in the major production			
	systems of the area)	90000	90000	89880
Н	Training of extension functionaries	25000	25000	25000
- 1	Maintenance of buildings	30000	30000	29991
J	Extension Activities	30000	30000	29976
K	Farmers Field School	25000	25000	25000
L	Library	5000	5000	5000
		900000	900000	899764
	TOTAL (A)			
B. No	n-Recurring Contingencies			
1	Furniture & Furnishing	-	-	-
а	Tractor witj implements	500000	500000	487500
b	Multi purpose crop thresher	60000	60000	57200
С	Power tiller	150000	150000	149990
d	Ground nut pod stripper	45000	45000	39000
е	Power Weeder	35000	35000	34992
f	Generator	100000	100000	100000
g	Epabx System	50000	50000	55220
2	Works			
3	Library (Purchase of assetsd lik books & Journals			
	back volume	10000	10000	10000
4	Vehicls			
TOTA	L (B)	950000	950000	933902
C. RE	VOLVING FUND			
GRAN	ND TOTAL (A+B+C)	6475000	6391119	8453395

# 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	449759.73	234647	231273	453133.73
April 2009 to March 2010	453133.01	83903	18426	518610.73
April 2010 to March 2011	339008.73	452316	291441	499883.73

# 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.M.RAJU	SMS (Agronomy)	Attend summer school on "Wealth from waste of poultry farm, livestock farm and poultry meat processing units"	VC & RI, Namakkal	22.09.10 to 12.10.10
		"Round up ready flux cotton tech"	TNAU, Coimbatore	28.10.10
Dr.V.DHANUSHKODI	SMS (SS&AC)	Southern regional seminar cum training	TNAU Coimbatore	15.12.2010
		to soil testing personnel		16.12.2010
Dr.S.KANNAN	SMS (Home Science)	Strengthening gender perspective in agricultural research and extension	TANUVAS, Chennai	24.01.2011 -25.01.2011
Dr.V.VIJAYAGEETHA	SMS (Seed tech)	National training on seed health testing	TNAU Coimbatore	03.01.2011- 07.01.2011
Dr.V.DHANUSHKODI	SMS (SS&AC)	Training on soil health management	DEE, TNAU, Coimbatore	21.03.2011 - 23.03.2011
Dr.S.KANNAN	SMS (Home Science)	Recent trends in crop processing technologies	IICPT, Thanjavur	23.03.2011 - 25.03.2011
Dr.S.HARIPRIYA	SMS (Horiculture)	Protected cultivation horticultural crops	DEE, TNAU, Coimbatore	28.03.2011 - 29.03.2011

# 16. TN-IAMWARM GOMUKHINADHI SUB BASIN

# Name of the sub basin: Gomukhinadhi (KVK, Vridhachalam)

Name of the scientist In charge: Dr.P.ARUTCHENTHIL,Ph.D

#### A. Details on outsourced staff

Sanctioned (Nos.)	Name of the staff	Position (No.)
Three	K.SAGADEVAN	SRF
	R. SUNDARAPANDIYAN	JRF
	R.PRAKASH	JRF

# B. Activities planned for 2010 - 11

SI.	Name of the activities	Physical Area Name of the activities (ha)		Remarks*	
NO.		Target	Achievement		
1	GM-SRI-RFP	13	13(GM-SRI-RFP)	Crop harvested	
2	SRI-RFP	50	50(SRI)	Crop harvested	
3	Garden land pulses	55	55	Crop harvested	
4	Groundnut	20	20	Maturity stage	
5	Cotton	30	30	Crop is in vegetative stage	
6	Precision Farming				
	a. Sugarcane	15	-	Beneficiaries selected, Field survey under progress	
	b. Banana	05	-	Beneficiaries selected, Field survey under progress	
	c. Turmeric	07	-	Beneficiaries selected, Field survey under progress	

# C. Technical observations

# Name of the activity: Paddy - Rajarajan 1000 technology

Village/Tank	District	Beneficiary Name	Yield Kg/ha
S.Naraiyur	Cuddalore	Ravichandran,S/o.Thirunarayanan	7957
Nainarpalayam	Villupuram	Arivazhan,S/o. Chellapillai	7828
Nainarpalayam	Villupuram	Duraisamy pillai,S/o.Meivarayapillai	8316
Kalasamuthiram	Villupuram	Rajendren,S/o.Vaiyapuri	9625
Pethanur	Villupuram	Vasudevan,S/o.Rajagopal	9047

# D. Farmers training organized (on / off campus)

Date	Place	Title of training	Contents delivered	No. of
		-		participants
09.07.2010	S.Naraiyur	Off campus training on	SRI Nursery	35
		SRI Production	preparation, Crop	
		Technology	Production, INM, IPM	
24.08.2010	A.Marur	Off campus training on	SRI Nursery	42
		SRI Production	preparation, Crop	
		Technology	Production, INM, IPM	
24.08.2010	Mudiyanur	Off campus training on	SRI Nursery	31
		SRI Production	preparation, Crop	
		Technology	Production, INM, IPM	
25.01.2011	Thachur	Off campus training on	Crop Production,	50
		precision farming	INM,IPM	
27.01.2011	Nainarpalayam	Off campus training on	Crop Production,	50
		precision farming	INM,IPM	
17.03.2011	KVK,	On campus training on	Crop Production,	50
	Vridhachalam	IPT for cotton	INM,IPM	
21.03.2011	KVK,	On campus training on	Crop Production,	50
	Vridhachalam	IPT for cotton	INM,IPM	

# E. Exposure visit

Date	Places visited	Technology learnt	No. of beneficiaries
30.09.2010	CODISSIA	SRI ,Precision	100
		Farming and all hi-	
		tech Agricultural,	
		Horticultural and	
		allied Technologies	

# F. Publications made - Pamphlets (List): One (SRI RAJARAJAN 1000)

# G. Press report

Date	News Paper	News items published
7.06.2010	Dina Thanthi	GM,SRI,RFP,GLP,Groundnut, Cotton
		& Precision Farming for Sugarcane, Banana
		& Turmeric
14.07.2010	Dina Thanthi	SRI, Pulses & Precision Farming
27.01.2011	Dina Mani	SRI Technologies
24.02.2011	Dina Mani	Precision Farming
		(Sugar cane &Banana)

# H. Visitors to sub basin

Date	Name of the officer	Village/ place	Activity visited
10.00.0010			Reviewed TN-
18.06.2010	Dr.B.J.Pandiyan, Ph.D	KVK, Vriddnachalam.	
			activities.
13.10.2010			Green manure
	Dr.B. I. Pandiyan, Ph.D.		field visit and
	DI.B.J.Fanulyan, Fh.D	Nainaipaiayain,Kului	RAWE students
			review
13.10.2010	Dr.C.Kathirashan Bh.D.		RAWE students
	DI.G.Ratilieshen, Fl.D	Nainaipalayani,Kurui	review
29.01.2011			Rajarajan 1000
	Dr.B.J.Pandiyan, Ph.D	Thachur,Kallakurichi	technology field
			visit.
26.03.2011	Dr. B. I. Bandiyan, Bh. D.	Thachur Kallakurichi	Precision Farming
	DI.D.J.Fallulyall, Pll.D	Thachur, NaildKurichi	survey visit.

# SUMMARY FOR 2010-11

# I. TECHNOLOGY ASSESSMENT

# Summary of technologies assessed under various crops

Thematic areas	Crop	Crop Name of the technology assessed		No. of trials	
Integrated Nutrient Management	Pulses	Assessment of the performance of pulse wonder in pulses (Blackgram)	10		
Varietal Evaluation	Paddy	Assessment of new rice variety ANNA 4 in drought prone areas	10		
	Paddy	Production of rice hybrid CORH 3 in farmers participatory approach	4		
	Pulses	Assessment of planting methods in redgram	8		
Integrated Pest Management	Tuberose	Nematode management in tuberose	5		
	-	-		-	
Integrated Crop Management	-	-		-	
	-	-		-	
Integrated Disease Management	Groundnut	Management of stem rot in groundnut	10		
	-	-		-	
Small Scale Income Generation	-	-		-	
Enterprises	-	-		-	
Weed Management	-	-		-	
	-	-		-	
Resource Conservation	-	-		-	
Technology	-	-		-	
Farm Machineries	-	-		-	
	-	-		-	
Integrated Farming System	-	-		-	
	-	-		-	
Seed / Plant production	Tapioca	Testing the potential of portray raised single budded setts in tapioca	5		
	-	-		-	
Value addition	-	-	-		
	-	-		-	
Drudgery Reduction	-	-		-	
	-	-		-	
Storage Technique	-	-		-	
	-	-		-	
Others (PI. specify)	-	-		-	
	-	-		-	
Total			52		

#### Summary of technologies assessed under livestock

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials
Disease Management	-	-	-
Evaluation of Breeds	-	-	-
Feed and Fodder management	Dairy	Area specific mineral mixture for dairy cows	10
Nutrition Management	-	-	-
Production and Management	-	-	-
Others (Pl. specify)	-	-	-
Total			10

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**

### Cotton

#### Frontline demonstration on cotton

Cron	Thematic	Name of the	No. of	No. of	Area	Yield (q/ha	a)	%	*Eco	nomics of (Rs./	demonstra ha)	tion		*Economi (Rs	cs of chec s./ha)	k
Сгор	Area	demonstrated	KVKs	Farmers	(ha)	Demonstration	Check	Increase	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cotton	Crop improvement	Production technology	1	25	10 ha	18.78	11.12	40.79	37590	89788	52198	2.40	22248	40116	17868	1.80
Total																

#### Other crops

Crop	Thematic	Name of the technology	No. of	No. of	Area	Yield (	q/ha)	% change in yield	Other parar	neters	*Econ	omics of d (Rs./h	emonstratio a)	on	*E	conomics ( (Rs./h	of check a)	
-	area	demonstrated	KVKs	Farmer	(na)	Demons ration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cereals	Varietal evaluation	Popularization of new variety in paddy	1	10	5	58.13	46.80	24.61	No. of tillers and Productive tillers (39.1 & 36.8)	No. of tillers and Productive tillers (22.1 & 15.6)	15064	63666	48602	4.23	15064	47903	32839	3.18
	Varietal evaluation	Popularization of new hybrid in paddy	1	10	5	45.61	42.80	6.66	No. of tillers and Productive tillers (35.7 & 32.3)	No. of tillers and Productive tillers (20.5 & 15.3)	13846	50382	36536	3.68	13846	43486	29640	3.14
Pulses		Drought mitigation technology in pulses	The pur	chase of m	nini mob	ile sprinkler	was comp	leted only o	during march 2011.	Hence the de	monstration	will be con	ducted durin	g forth c	coming seas	on.		
Vegetables	varietal evaluation	Popularization of brinjal hybrid COBH2	1	10	2	46740	56000	-16			1,00,000	1,80,000	80,000	1.80	1,00,000	2,75,000	1,75,000	2.75
_	varietal evaluation	Popularisation of snake gourd PLR(SG) 2	1	10	5	21400	19660	8.10			25,000	75,000	50,000	3.00	25,000	67,000	42000	2.68

	crop management	Integrated practices in Watermelon	1	5	4	45000	38500	14.44			37,500	1,37,500	1,00,000	3.67	36,200	1,07,000	70,800	2.96
Fodder	Popularization of fodder bank at village level	Cumbu Napier CO 4 Guniea grass CO 3 and Desmanthus	1	5	1				The fodder cr	ops are in veg	getative pha	se. Demons	tration is ur	nder prog	gress			
Plantation	crop improvement	Introduction of hybrid cashew	1	10	5				The tree crop	o is in vegetati	ive phase a	nd Demonst	ration is un	der prog	ress			
	Total		7	60	27													

### Livestock

Category	Thematic	Name of the technology	No. of	No. of	No.of	Major para	ameters	% change in major parameter	Other par	ameter	*Econo	mics of de	nonstratio	n (Rs.)	*	Economics (Rs	of check	
	alea	demonstrated	KVKs	Faillei	units	Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Poultry	Poultry farming	Popularization of nanthanam turkey for backvard poultry	1	10	5+1	5.6	4.2	33	46 eggs	30 eggs	2760	7460	4700	2.70	2760	5390	2630	1.95
	Evaluation of egg hatchability	Evaluation of hatchability of poultry eggs using low cost incubators	1	-	5	Incubator	was installe	ed and first bat	ch of Rhodo	white eggs	were kept da	under incub ays.	ation. The I	natchabili	ty paramet	ers will be a	assessed at	fter 15
		Total																

#### Fisheries

Category	Thematic	Name of the technology	No. of	No. of	No.of	Maj param	or eters	% change in major parameter	Other par	rameter	*Econ	omics of ( (Rs	demonstra s.)	ation	*E	conomics (Rs	s of checl s.)	ĸ
	area	demonstrated	KVKs	Faimer	units	Demons ration Check			Demons	Check	Gross	Gross	Net	**	Gross	Gross	Net	**
						ration	onoon		ration	onoon	Cost	Return	Return	BCR	Cost	Return	Return	BCR
	Fish	Popularization of	1	10	ration Cneck cneck Cost Return BCR Cost Return BCR   10													
Common	farming	Fish culture in						Demo	under progr	ess (Since	e the inpu	ts has bee	n given to	Decemb	per 2010)			
carps	_	village ponds											-					
		Total																-

## Other enterprises – Nil

Category	Name of the technology	No. of	No. of	No.of	Major para	ameters	% change in major parameter	Other par	ameter	*Econ	omics of ( (Rs.) or I	demonstra Rs./unit	ation	*E	conomics (Rs.) or I	of check	k
	demonstrated	KVKs	Farmer	units	Demons ration	Check		Demons ration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Oyster	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-
mushroom																	
	Total																

### Women empowerment – Nil

Category	Name of technology	No. of KVKs	No. of demonstrations	Name of observations	Demonstration	Check
Women						
Pregnant women						
Adolescent Girl						
Other women						
Children						
Neonats						
Infants						
Children						

### **Other enterprises -Nil**

### Demonstration details on crop hybrids

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg par	g/ha) / amete	major r		Economics	s (Rs./ha)	
				Demonst- ration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Cereals										
Bajra										
Maize										
Rice	CoRH 3	10	5	45.61	42.80	6.66	13846	50382	36536	3.68
Sorghum	-	-	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-
Cucumber	-	-	-	-	-	-	-	-	-	-
Tomato	-	-	-	-	-	-	-	-	-	-
Brinjal	CoBH2	10	2	46740	56000	-16	1,00,000	1,80,000	80,000	1.80
Okra	-	-	-	-	-	-	-	-	-	-
Onion	-	-	-	-	-	-	-	-	-	-
Potato	-	-	-	-	-	-	-	-	-	-
Field bean	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
Total	2	20	7	-	-	-	-	-	-	-

# IV. Training Programme

	No of				No.	of Parti	cipants			
Area of training	Cours		General			SC/ST	•	Gr	and Tota	al
	es	м	F	Total	м	F	Total	М	F	Total
Crop Production										
Weed Management	5	40	12	52	20	10	30	60	22	82
Resource Conservation Technologies	1	30	2	32	15	3	18	45	5	50
Cropping Systems	2	20	15	35	10	5	15	30	20	50
Crop Diversification	4	35	5	40	15	5	20	50	10	60
Integrated Farming	1	10	-	10	5	-	5	15	-	15
Micro Irrigation/Irrigation	13	320	20	340	140	20	160	460	40	500
Seed production	5	92	2	26	6	5	9	98	7	105
Nursery management	10	30	-	30	15	-	15	45	-	45
Integrated Crop Management	2	20	10	30	15	5	20	35	15	50
Soil and Water Conservation	1	16	5	21	12	8	20	28	13	41
Integrated Nutrient Management	2	45	15	60	15	5	20	60	20	80
Production of organic inputs	5	125	15	140	25	10	35	150	35	185
Horticulture										
a) Vegetable Crops										
Nursery raising	2	22	12	34	14	16	30	36	28	64
Protective cultivation	4	95	15	110	50	30	80	145	45	190
Agronomic practices	5	30	15	45	15	8	23	45	23	68
b) Fruits										
Training and Pruning	1	25	10	35	10	5	15	35	15	50
Rejuvenation of old orchards	1	10	25	35	10	10	20	20	45	65
Micro irrigation systems of orchards	2	60	25	85	30	10	40	90	35	125

# Farmers' Training including sponsored training programmes (On campus)

Plant propagation techniques	1	20	15	35	10	10	20	30	25	55
c) Ornamental Plants										
Nursery Management	1	20	10	30	10	5	15	30	15	45
d) Plantation crops										
Production and Management technology	1	35	10	45	15	10	25	50	20	75
e) Tuber crops										
Production and Management technology	1	25	10	25	10	5	15	35	15	60
f) Spices	-	-	-	-	-	-	-	-	-	-
Production and Management technology										
g) Medicinal and Aromatic Plants	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	1	5	15	20	-	2	2	5	17	22
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
Soil Health and Fertility Management	-	-	-	-	-	-	-	-	-	-
Soil fertility management	3	45	15	60	10	10	20	55	25	80
Integrated water management	-	-	-	-	-	-	-	-	-	-
Integrated nutrient management	1	16	25	41	15	10	25	31	50	81
Production and use of organic inputs	1	10	15	25	10	5	15	20	20	40
Management of Problematic soils	2	25	10	35	10	10	20	35	20	55
Micro nutrient deficiency in crops	1	14	7	21	13	10	23	27	17	54
Soil and water testing	1	22	10	32	10	13	23	32	23	55
Livestock Production and Management										
Poultry Management	1	5	15	20	2	7	9	7	22	29
Others (pl.specify)Goat farming	1	27	25	52	7	-	7	27	32	84

Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	25	10	35	5	5	10	30	15	45
Value addition	6	60	91	151	3	71	74	63	162	225
Agril. Engineering	-	-	-	-	-	-	-	-	-	-
Farm machinery and its maintenance	2	25	15	40	10	10	20	35	25	60
Installation and maintenance of micro irrigation systems	5	25	10	35	15	5	20	40	15	55
Use of Plastics in farming practices	1	20	10	30	10	10	20	30	20	50
Plant Protection										
Integrated Pest Management	2	23	17	40	15	8	23	38	25	63
Production of bio control agents and bio pesticides	1	25	15	40	13	10	23	38	25	63
Fisheries	-	-	-	-	-	-	-	-	-	-
Integrated fish farming	1	15	10	25	7	6	13	22	16	38
Fish processing and value addition	1	14	7	21	10	9	19	24	16	40
Production of Inputs at site										
Vermi-compost production	1	10	15	25	10	5	15	20	20	40
Organic manures production	2	27	13	40	12	7	19	39	20	59
Production of livestock feed and fodder	2	35	16	51	24	19	43	59	35	94
Capacity Building and Group Dynamics	-	-	-	-	-	-	-	-	-	-
Computer literacy training for farmers	4	22	14	36	5	5	10	27	19	46
TOTAL	111	1620	628	2170	683	422	1103	2296	1092	3438

	No. of				No. o	f Partici	pants			
Area of training	Cours	(	General			SC/ST		Gr	and To	tal
	es	М	F	Total	м	F	Total	М	F	Total
Crop Production										
Weed Management	4	120	25	145	25	10	35	145	35	180
Resource Conservation Technologies	2	80	25	105	15	5	20	95	30	125
Integrated Farming	5	150	30	180	35	15	50	185	80	265
Micro Irrigation/Irrigation	13	320	20	340	140	20	160	460	40	500
Nursery management	1	30	10	40	10	5	15	40	15	55
Production of organic inputs	2	40	15	55	20	15	35	60	50	110
RajaRajan 1000 Techniques	4	200	25	225	30	15	45	230	40	270
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	2	25	15	40	30	10	40	55	25	80
Off-season vegetables	1	10	10	20	5	5	10	15	15	30
Nursery raising	1	15	10	25	10	10	20	25	20	45
b) Fruits										
Cultivation of Fruit	1	25	15	40	10	10	20	35	25	60
c) Ornamental Plants	-	-	-	-	-	-	-	-	-	-
d) Plantation crops										
Production and Management technology	1	45	10	55	10	5	15	55	15	70
Processing and value addition	1	25	10	35	15	10	25	60	25	85
Soil Health and Fertility Management										
Soil fertility management	2	38	19	57	15	13	28	53	31	84
Integrated water management	1	19	16	35	10	5	15	29	21	60
Management of Problematic soils	1	29	26	45	15	10	25	44	36	80

### Farmers' Training including sponsored training programmes (Off campus)

Soil and water testing	4	57	26	83	27	26	53	84	52	136
Livestock Production and Management										
Dairy Management	1	25	15	40	10	10	20	35	25	60
Production of Inputs at site										
Seed Production	2	28	19	47	8	6	14	36	25	61
Vermi-compost production	1	16	15	31	8	7	15	24	22	46
TOTAL	50	1297	356	1643	448	212	660	1765	627	2402

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

		No. of Participants											
Area of training	No. of Courses		General			SC/ST		C	Grand Tot	al			
		М	F	Total	м	F	Total	м	F	Total			
Nursery Management of Horticulture crops	2	28	16	44	10	21	31	38	37	75			
Seed production	1	15	7	22	15	2	17	30	9	39			
Mushroom Production	5	25	10	35	15	10	25	35	20	60			
Sericulture	1	16	8	24	9	7	16	25	15	40			
Repair and maintenance of farm machinery and implements	2	25	20	45	10	10	20	35	30	65			
Vermicompost Production	1	18	3	21	4	2	6	22	5	27			
Value addition	2	3	26	29	7	19	26	10	45	55			
Fish Value addition	3	9	22	31	4	6	10	13	28	41			
Computer literacy training to farmers	1	8	-	8	4	-	4	12	-	12			
TOTAL	18	147	112	259	78	77	155	220	189	414			

	No. of	No. of Participants										
Area of training	No. of Courses	G	Gene	ral		SC/S	т	(	Grand	Total		
		М	F	Total	м	F	Total	м	F	Total		
Nursery Management of Horticulture crops	1	21	2	23	5	7	12	26	9	35		
Commercial fruit production	1	18	4	22	9	5	14	27	9	36		
Integrated farming	2	45	20	65	20	10	30	65	30	95		
Seed production	5	25	5	15	10	10	20	35	15	40		
Production of organic inputs	6	80	10	90	40	10	50	120	20	140		
Planting material production	1	10	8	18	7	6	13	17	15	32		
Vermi-culture	1	16	11	27	5	7	12	21	18	39		
Mushroom Production	2	12	5	17	10	5	15	22	20	42		
TOTAL	19	227	65	277	106	60	166	333	136	459		

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

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

		No. of Participants											
Area of training	No. of		General			SC/ST		C	Frand Tota	al			
	Courses	м	F	Total	М	F	Total	м	F	Total			
Productivity enhancement in field crops	4	41	2	43	11	-	11	52	2	54			
Integrated Pest Management	8	250	40	290	80	12	92	330	52	382			
Integrated Nutrient management	8	250	40	290	80	12	92	330	52	382			
Production and use of organic inputs	1	19	7	26	21	13	34	40	20	60			
Women and Child care	1	-	17	17	-	13	13	-	30	30			
Livestock feed and fodder production	1	19	7	26	21	13	34	40	20	60			
Household food security	1	-	30	30	-	12	12	-	42	42			
Any other (pl.specify)	-	-	-	-	-	-	-	-	-	-			
Total	-	24	579	143	722	213	75	288	792	218			

					No. d	of Partici	oants			
Area of training	No. of		General			SC/ST		C	Frand Tot	al
	0001363	м	F	Total	М	F	Total	М	F	Total
Productivity enhancement in field crops	2	65	10	75	15	5	20	80	15	95
Integrated Pest Management	1	35	10	45	30	10	40	65	20	85
Integrated Nutrient management	1	35	10	45	30	10	40	65	20	85
Protected cultivation technology	4	60	25	85	25	10	35	85	35	120
Production and use of organic inputs	1	30	6	36	8	5	13	38	13	49
Care and maintenance of farm machinery and implements	1	25	1	26	7	2	9	32	8	40
Total	10	250	62	312	115	42	157	365	111	474

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

## Sponsored training programmes

		No. of	No. of Participants										
S.No	Area of training	Course		Genera	al		SC/ST	-	Grand Total				
			М	F	Total	м	F	Total	м	F	Total		
1	Crop production and management												
1.a.	Increasing production and productivity of crops	10	213	15	228	157	15	172	370	30	400		
2	Production and value addition	-	-	-	-	-	-	-	-	-	-		
3.	Soil health and fertility management	1	29	4	33	5	2	7	34	6	40		
4	Production of Inputs at site	2	26	4	30	27	13	40	53	17	70		
5	Methods of protective cultivation	-	-	-	-	-	-	-	-	-	-		
6	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-		
7	Post harvest technology and value addition												
7.a.	Processing and value addition	1	10	15	25	2	3	5	12	18	30		
12	Agricultural Extension												

12.a.	Capacity Building and Group Dynamics	-	-	-	-	-	-	-	-	-	-
12.b.	Gender sensitization modules	2	30	10	40	5	5	10	35	15	50
	Total	16	308	48	356	196	38	234	504	86	590

#### Details of sponsoring agencies involved

- 1. Government of Tamil Nadu sponsored NADP Precision Farming Project
- 2. National Committee on Plasticulture Applications in Horticulture, GOI, New Delhi
- 3. District Poverty Alleviation Programme, Cuddalore
- 4. Indian Institute of Crop Processing Technology, Tanjore
- 5. Directorate of Cashew and Cocoa Development Board, Cochin
- 6. National Bamboo Mission, New Delhi
- 7. Commissionarate of Horticulture, Chennai

#### 8. NABARD

#### Details of vocational training programmes carried out by KVKs for rural youth

			No. of Participants										
S.No	Area of training	No. of		Genera	ıl		SC/ST	•	Gr	and To	otal		
•		Courses	М	F	Total	М	F	Total	М	F	Total		
1	Crop production and management												
1.a.	Commercial floriculture	-	-	-	-	-	-	-	-	-	-		
1.b.	Commercial fruit production	-	-	-	-	-	-	-	-	-	-		
1.c.	Seed production	1	20	-	20	2	-	2	20	-	20		
1.d.	Integrated crop management	-	-	-	-	-	-	-	-	-	-		
1.e.	Organic farming	1	18	3	21	4	2	6	22	5	27		
1.f.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-		
2	Post harvest technology and value addition												
2.a.	Value addition	2	69	8	77	9	5	14	28	13	91		
2.b.	Others (pl.specify)												
3.	Livestock and fisheries	-	-	-	-	-	-	-	-	-	-		
4.	Income generation activities												
4.a.	Vermi-composting	1	18	3	21	4	2	6	22	5	27		
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-		
4.c.	Repair and maintenance of	-	-	-	-	-	-	-	-	-	-		

	farm machinery										
	and implements										
4.d.	Rural Crafts	-	-	-	-	-	-	-	-	-	-
4.e.	Seed production	1	48	-	48	2	-	2	50	-	50
4.f.	Sericulture	-	-	-	-	-	-	-	-	-	-
4.g.	Mushroom cultivation	1	14	2	16	6	3	9	20	5	25
5	Agricultural Extension	-	-	-	-	-	-	-	-	-	-
	Grand Total	7	187	16	203	27	12	39	162	28	240

# V. Extension Programmes

			No. of	TOTAL
Activities	No. of programmes	No. of farmers	Extension	
			Personnel	
Advisory Services	150	11997	633	12630
Diagnostic visits	279	7013	59	7072
Field Day	25	976	434	1410
Group discussions	25	2564	185	2749
Exhibition	22	1371	475	1846
Scientists' visit to farmers field	157	1269	116	1385
Plant/animal health camps	3	317	61	378
Farm Science Club	16	617	633	1250
Farmers' seminar/workshop	6	711	42	753
Method Demonstrations	148	3906	171	4077
Exposure visits	22	2035	148	2183
Others (pl.specify)	-	-	-	-
Total				35733

# Details of other extension programmes

Particulars	Number
Electronic Media	-
Extension Literature	76
News Letter	4
News paper coverage	56
Technical Articles	18
Technical Bulletins	45
Technical Reports	125
Radio Talks	18
TV Talks	-
Animal health amps (Number of animals treated)	76
Others (pl.specify)	-
Total	418

## VI. PRODUCTION OF SEED/PLANTING MATERIAL

Production	of	seeds	hv	the	KVKs
1 TOULCHOIL	UI.	うてていう	NY.	uie	1/1/2

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	-	-	-	-	-
Oilseeds	-	-	-	-	-
Pulses	-	-	-	-	-
Commercial crops	Cashew	VRI 3	104 Kg	6500	20
Vegetables	-	-	-	-	-
Flower crops	-	-	-	-	-
Spices	-	-	-	-	-
Fodder crop seeds	Cumbu Napier grass	Co4	10000	4000	20
Total					

# 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
Commercial	Cashew	VRI 3	17800	3,20,400	500
	Cashew	VRI (Cw) H 1	400	7,200	10
Vegetable seedlings	Brinjal	COBH2	20000	10,000	20
	Chillies	Local	4000	2,000	10
Fruits	Jack	PLR 2	50	1,250	25
Ornamental plants	Rose	Local	350	3,50	35
	Crotons	Local	500	5,000	58
Medicinal and Aromatic	-	-	-	-	-
Plantation	-	-	-	-	-
Spices	-	-	-	-	-
Tuber	-	-	-	-	-
	Cumbu Napier	CO4	10000	4,000	20
Fodder crop saplings	grass				
Forest Species	-	-	-	-	-
Others	Red gram Seedling	CO (Rg)7	5000	7,500	10
Total		-	58100	57,406	688

### **Production of Bio-Products**

	Name of the bio-	Quantity		
Bio Products	product	Kg	Value (Rs.)	No. of Farmers
Bio Fertilizers	-	-	-	-
Bio-pesticide	-	-	-	-
Bio-fungicide	-	-	-	-
Bio Agents	-	-	-	-
Others	Vermicompost	1500 Kg	7500	2
Total		1500 Kg	7500	2

Particulars of Live stoc	Name of the breed	Number	Value (Rs.)	No. of Farmers	
Dairy animals					
Cows	-	-	-	-	
Buffaloes	-	-	-	-	
Calves	-	-	-	-	
Others (Pl. specify)	-	-	-	-	
Poultry	-	-	-	-	
Broilers	-	-	-	-	
Layers	Rhodo white chicken Eggs	300	1800	30	
	-	-	-	-	
Duals (broiler and layer)	-	-	-	-	
Japanese Quail	-	-	-	-	
Turkey	-	-	-	-	
Emu	-	-	-	-	
Ducks	-	-	-	-	
Others (Pl. specify)	-	-	-	-	
Piggery	-	-	-	-	
Piglet	-	-	-	-	
Others (Pl.specify)	-	-	-	-	
Fisheries	-	-	-	-	
Fingerlings	-	-	-	-	
Others (Pl. specify)	-	-	-	-	
Total		300	1800	30	

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

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	550	425	328	13750
Water	550	550	425	5500
Plant				-
Manure				-
Others (pl.specify)	-	-	-	-
Total	1100	975	753	19250

### **VIII. SCIENTIFIC ADVISORY COMMITTEE**

Number of SACs conducted – 1 (27.09.2010)

NEWSLETTER

IX.

Number of issues of newsletter published 4 Nos.

## X. RESEARCH PAPER PUBLISHED

Numbe	Number of research paper published		
1.	Performance of pulse wonder in black gram		
2.	Popularization of Nanthanam turkey		
3.	Popularization of Rhodo white chicken		
4.	Crosandra-Success story		

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

Activities conducted					
No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)	
-	-	-	283	150	

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