ANNUAL REPORT 2010-11

(FOR THE PERIOD APRIL 2010 TO MARCH 2011)

KRISHI VIGYAN KENDRA (SANDHIYUR, SALEM DISTRICT)

2011

PART I - GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Web Address
	Office	FAX		
Krishi Vigyan Kendra Mallur (Via) Sandhiyur – 636 203 Salem District TAMILNADU	0427-2422550	0427 - 2422269	*kvkmallur@tnau.ac.in*	www.tnau.ac.in/dee/kvksandy

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

Address	Telephone		E mail	Web Address
	Office	FAX		
Dr.P.Subbian The Registrar TNAU Coimbatore - 641003 TAMILNADU	0422 - 6611201	0422-2431821	*registrar@tnau.ac.in*	www.tnau.ac.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. S.Manickam	0427-2467295	094434 99234	s_manicks@yahoo.co.in

1.4. Year of sanction:

No. 6 (3) 194 – AE (1) dated 28.3.94 of ICAR, New Delhi.

1.5. Staff Position (as 31st March 2010):

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M / F	Discipline	Highest Qualification (for PC, SMS and Prog. Asst.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC / ST / OBC / Others)
1	Programme Coordinator	Dr. S. Manickam	Associate Professor & Head	M	Agronomy	Ph.D	37400-67000 (9000 GP)	47800	29.12.2009	Permanent	OBC
2	SMS	Dr. K. Sara Parwin Banu	Associate Professor	F	Environmental Science	Ph.D	37400-67000 (9000 GP)	50720	02.06.2010	Permanent	OBC
3	SMS	Dr. R. Jegathambal	Associate Professor	F	Seed Science & Technology	Ph.D	37400-67000 (9000 GP)	46400	07.05.2008	Permanent	OBC
4	SMS	Dr. B. Geetha	Assistant Professor	F	Agrl. Entomology	Ph.D	15600-39100 (7000 GP)	28230	16.05.2007	Permanent	OBC
5	SMS	Dr. P.S. Kavitha	Assistant Professor	F	Horticulture	Ph.D	15600-39100 (6000 GP)	24850	29.12.2009	Permanent	OBC
6	SMS	Dr. M.A. Vennila	Assistant Professor	F	Agrl. Extension	Ph.D	15600-39100 (6000 GP)	24850	30.12.2009	Permanent	SC
7	SMS	Dr. P. Chitra	Assistant Professor	F	Animal Science	Ph.D	15600-39100 (6000 GP)	24850	30.12.2009	Permanent	OBC

8	Programme Assistant (LabTech.) / T-4	Th. G. Senthilnathan	Programme Assistant (Technical)	M	Agriculture	B.Sc (Agri)	9300-34800 (4400 GP)	16000	01.08.2008	Permanent	OBC
9	Programme Assistant (Computer) / T-4	Th.B.Shanmugasundaram	Programme Assistant (Computer)	M	Computer Application	BCA	9300-34800 (4400 GP)	15720	08.12.2008	Permanent	OBC
10	Programme Assistant/ Farm Manager	Mrs. A. Gayathri	Farm Manager	F	Soil Science & Agrl.Chemistry	M.Sc (Soil Science)	9300-34800 (4400 GP)	16000	26.09.2009	Permanent	OBC
11	Assistant	Mrs. R. Mallika	Assistant Accounts Officer	F	-	M.A (Economics)	9300-34800 (4900 GP)	19680	12.05.2006	Permanent	OBC
12	Jr. Stenographer	Mrs. P.Ganesan	Assistant	M	-	S.S.L.C	5200-20200 (2400 GP)	12270	10.05.2006	Permanent	sc
13	Driver	Th. M. Rajalingam	Driver	M	-	S.S.L.C	5200-20200 (2600 GP)	14070	01.04.1998	Permanent	SC
14	Driver	Th. S. Rathinam	Fitter	M	-	ITI – Fitter	5200-20200 (1900 GP)	10240	10.05.2006	Permanent	OBC
15	Supporting staff	Th. B. Ranganathan	Office Assistant	M	-	S.S.L.C.	5200-20200 (1800 GP)	9660	07.05.2008	Permanent	OBC
16	Supporting staff	Th. S. Devaraju	PUSM	M	-	VII Std.	4800-10000 (1400 GP)	8560	01.08.2002	Permanent	SC

1.6. Total land with KVK (in ha) : 9.95 ha

S. No.	Item	Area (ha)
1.	Under Buildings	1.95
2.	Under Demonstration Units	1.0
3.	Under Crops	4.0
4.	Orchard/Agro-forestry	3.0
5.	Others	-

1.7. Infrastructural Development:

A) Buildings:

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	2006	467	33,84,000	-	-	-
2.	Farmers Hostel	ICAR	2008	300	30,55,000	-	-	-
3.	Staff Quarters (6 - Nos)	ICAR	2008	398	36,00,000	-	-	-
4.	Demonstration Units	ICAR	Proposal submitted					
5	Fencing	ICAR	2006	600 RM	2,50,000	-	-	-
6	Rain Water harvesting system	ICAR	-	-	-	-	-	-
7	Thrashing floor	ICAR	-	-	-	-	-	-
8	Farm godown	ICAR	Proposal submited					

B) Vehicles:

Type of vehicle	Model	Actual cost (Rs.)	Total kms. Run	Present status
Bolero Jeep	Mahindra Bolero TN 30 AH 4687	Rs.6,00,000	3100	Working
Tractor with trailer	Year: 1996 MF 1035 DB TN 27 E 6385	Rs.2,18,100	2950 hrs	Working
Power Tiller	Year 2010 Greaves	Rs. 150000	-	Newly Purchased
Two wheeler	Year: 2005 TVS Motor Co. Ltd., Solo with Pillion, TVS Star DLX	Rs.39,930	23007	Working
Two wheeler	Year: 2009 Honda activa	Rs.50,000	17232	Working

C) Equipments & AV aids:

a. Soil and Water Testing Laboratory equipments

S.No.	Name of Equipments	Date of purchase	Cost (Rs.in lakhs)	Present status
1.	Spectrophotometer	2004-05	0.60	W
2.	Flame Photometer	2004-05	0.50	W
3.	pH Meter	2004-05	0.10	W
4.	Conductivity Bridge	2004-05	0.10	W
5.	Physical Balance	2004-05	0.10	W
6.	ChemChemical Balance	2004-05	1.00	W
7.	Water Distillation Still	2004-05	1.00	W
8.	Kjeldahl digestion and distillation (2 sets)	2004-05	0.60	W
9.	Shaker (2 Nos.)	2004-05	0.50	W
10.	Refrigerator	2004-05	0.20	W
11.	Oven	2004-05	0.15	W
12.	Hot Plate	2004-05	0.25	W
13.	Grinder (Willey Mill)	2004-05	0.30	W
14.	**Total**		**5.40**	

W – Working Condition

b. A.V. Aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Ahuja amplifier	1995-96	3,415	W
Mike AUD WIXLR	1995-96	1,091	NW
Stand DGN	1995-96	380	NW
Mike AOD 101M%	1995-96	974	NW
Stand DGT	1995-96	214	NW
Column SCM 30T	1995-96	1,368	NW
Mike CTP 10	1995-96	455	NW
Philips tape recorder	1995-96	3,415	NW
Black board with stand	1996-97	3158	W
TRIPOD screen	1996-97	1,908	W
Computer accessories	2003-04	1,35,000	W
Slide projector with stand	2004-05	24,975	W
OHP with stand	2004-05	24,950	W
Xerox machine	2004-05	75,000	W
Digital camera	2005-06	19,900	W
Ergonomically designed student chair	2005-06	65,000	W

W-Working, NW- Not working

1.8. A). Details SAC meeting conducted in 2009-10:

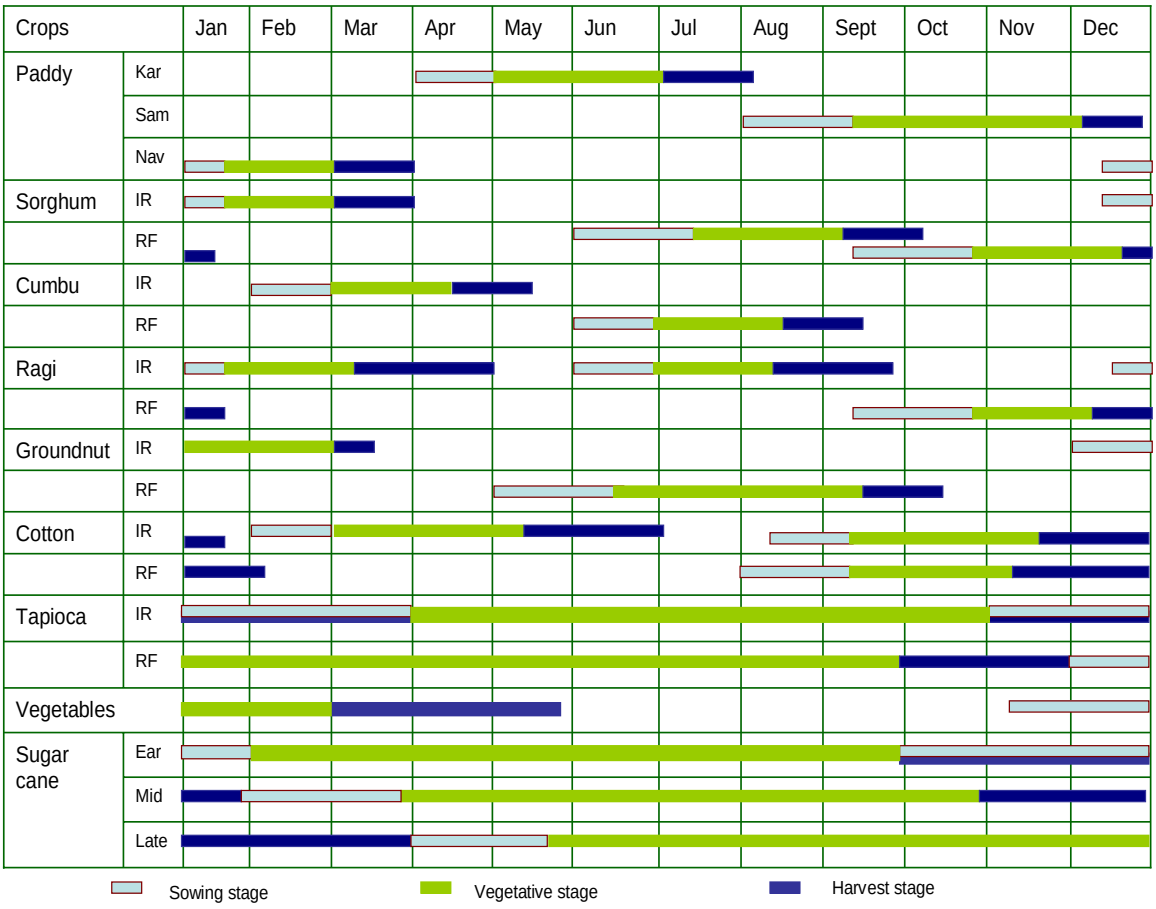
Sl.No	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.	28.01.2010	20	-	All the FLDs should be conducted in areas where the particular crop is being cultivated predominantly	All the FLDs were conducted with specific to crop location
2.				Demonstrations using Rice transplanter in SRI System of Rice cultivation should be conducted.	Rice transplanter was demonstrated and field day conducted.
3.				Documentation of *Bt* cotton to be prepared	Documentation completed
4.				Bio control lab is to be established for the production of Neem product, Neem soap formulation, *T. viride, Pseudomonas* in KVK brand name	Bio control lab will be established.
5.				Demo on pulses seed production is to be done in the farmers field in coordination with Department of pulses, Tamil Nadu Agricultural University, Coimbatore	Demo on pulses seed production was taken up and field day conducted.
6.				Farmers group should be linked with market intelligence	Farmers group has been linked with Dept of Market Extension, TNAU
7.				Case study and impact study may be done	Case study on CO (R) H3 paddy seed production has been completed
8.				Trainings in Animal Husbandry aspects are to be intensified	Weekly trainings for all the animal components are given.
9.				Demo unit on slat floor system of goat rearing should be established	Demo unit on slatted floor system of goat rearing established
10.				Technology park and Technology club are to be formed	Formation of Technology park and Technology club is under formation
11.				Data base of the district with primary data is to be collected for preparation of resource inventory	Data base has been created
12.				E - connectivity to be utilized more effectively	E - connectivity utilized more effectively

PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	Rice - Pulses - Maize
2	Rice - Sugarcane
3	Rice - Banana
4	Rice - Turmeric
5	Pulses - Tapioca
6	Sorghum - Tapioca
7	Sorghum - Groundnut - Maize
8	Onion - Turmeric
9	Sorghum - Sesame - Pulses

CROPPING CALENDER – SALEM DISTRICT



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

S. No	Agro-climatic Zone	Characteristics
1.	North Western Zone of Tamil Nadu	Salem district is an inland district bounded by Dharmapuri district in the North, Namakkal district in the South, Tiruchirapalli, Vilupuram and Perambalur districts in the East and Erode district in the West. It lies between 11° and 12° North latitude and 77° 40' and 78° 5' East longitude. The total geographical area is 5205 sq.km and the district comprises of seven taluks *viz*., Attur, Mettur, Omalur, Salem, Sankari, Valappady and Yercaud. The mean maximum temperature is 25°C - 42°C and the mean minimum temperature is 19°C - 25°C. The mean annual rainfall is 939 mm of which 47.6 per cent (447 mm) is received during the North East Monsoon, 33.7 per cent (316 mm) during the South West Monsoon, 17.4 per cent (164 mm) during summer and 1.3 per cent (12 mm) during winter. The major source of irrigation is through wells (93%). Of the total geographical area, the net sown area occupies 52.3 per cent (2,72,069 ha) and the remaining area is under forest (24.1%), barren and uncultivable land (8%) and land put to non agricultural uses accounts for 9.4 per cent. The North Western Agro-climatic Zone shows considerable diversity in soil types. The major soil types occurring in the zone are 1) Red non-calcareous, 2) Red- Calcareous 3) Alluvial 4) Black soil 5) Hill soil 6) Forest soil 7) Saline/alkali soil. Of these major area comes under red non-calcareous and red calcareous soils. Red /brown non- calcareous soil is predominant in the North-Western Zone occupying 62.6 per cent followed by Red/Brown calcareous soil with 30.5 per cent. Black and alluvial soil contributes a meager of 5.6 and 1.3 per cent respectively. Total area under Salem District in different soil series is 3.47 lakh hectares of which Red Non-Calcareous soil predominant by occupies 66.3% of the area. The next comes the Red calcareous soil type with 29.3 per cent followed by Black (3.8%) and Alluvial deposits (0.6%). The taluks with non-calcareous soil type are Attur, Mettur, Omalur and Salem. Sankari taluk has predominantly occupied with calcareous soil type. Salem district has the highest area (0.72 lakh ha) under saline and alkalinity in the North Western zone of Tamil Nadu.

S. No	Agro ecological situation	Characteristics
1.	Western Ghats (Tamil Nadu uplands) and Deccan Plateau; hot semi arid; red loamy soils; growing period 90-150 days	**Agro-ecological Situation 1 :** (Salem, Mettur, and parts of Omalur Taluks of Salem District) • Lack of improved medium duration ragi varieties suited to seedling transplanting under rainfed conditions. • Lack of heat resistant rainfed varieties in tomato. • Lack of varieties / technology for rainfed banana. • As far as irrigated sorghum is concerned, imbalanced use of fertilizers, non- application of *Azospirillum* along with FYM, incidence of shoot fly earhead bug etc. **Agro-ecological Situation 2** : (Attur taluk of Salem district) • Non-availability of adequate quantities of certified seeds in groundnut due to low multiplication ratio Low plant population due to non-adoption of recommended seed rate/seed treatment. • Incidence of pests and diseases in cotton in both winter and summer seasons. • Non-availability of high yielding drought tolerant rainfed / irrigated tapioca varieties/hybrids with resistance to phoma disease. **Agro-ecological Situation 3 :** (Sankari and parts of Omalur taluk of Salem district) • Non-availability of rice varieties better than IR 20 and Ponni suitable for late samba season with tolerance to brown plant hopper. • High incidence of pests and diseases in long and extra long staple cotton. • Lack of improved medium staple cotton varieties with resistance to stem weevil and whitefly. • Lack of high yielding drought resistant semi spreading and spreading varieties of groundnut. Lack of appropriate agronomic practices for spreading type groundnut variety.

2.3 Soil type/s:

S. No	Soil type	Characteristics	Area in ha
1.	Red calcareous	Moderately deep to Very deep; Loamy skeletal to Fine loamy; moderately slow to rapid permeability; pH 7.4 to 9.0 and medium in water holding capacity (21-50%)	2,47,391
2.	Red non calcareous	Deep soils (51-100 cm); Coarse loamy to fine loamy; moderate to rapid permeability; low water holding capacity (0-20 %); pH 6.6-7.8	50,212
3.	Brown calcareous	Very deep soils (>100 cm); fine loamy; moderately slow permeability; High water holding capacity (> 50 %); pH 7.9-8.4	7,385
4.	Brown non calcareous	Very deep soils (>100 cm); fine loamy to fine; moderately slow to moderately rapid permeability; medium to high water holding capacity (21- 50 %); pH 5.5-6.5	38,267
5.	Black soil	Deep soils (51-100 cm); fine loamy; moderately slow permeability; medium water holding capacity (21- 50 %); pH 8.5-9.0	1,941
6.	Alluvial soil	Very deep soils (>100 cm); fine loamy; Rapid permeability; medium water holding capacity (21- 50 %); pH 7.4-7.8	2,136
7.	Mixed soil	Deep soils (51-100 cm); fine loamy; moderately slow permeability; High water holding capacity (> 50 %); pH 7.9-8.4	21,776

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

S. No	Crop	Area (ha)	Production (Lakh Metric tons)	Productivity (kg /ha)
1	Paddy	32574	1.831	4170
2	Millets	118871	2.757	2320
3	Pulses	50244	0.290	579
4	Oilseeds	33646	0.660	1962
5	Cotton	12956	0.266	2060
6	Sugarcane	14439	10.930	75700
7	Mango	5900	0.590	10000
8	Banana	1480	0.666	45000
9	Tapioca	18920	6.811	36000
10	Turmeric	4250	0.128	3000
11	Vegetables	8395	1.980	21000
12	Flower crops	1220	0.110	9000

* Source : Department of Agriculture & Horticulture, Salem

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)	
		Maximum	Minimum	AM	PM
April-10	72.3	39.5	24.2	81.3	48.3
May	133.4	39.1	24.2	80.9	47.5.
June	43.0	37.8	24.3	85.1	49.5
July	67.5	35.5	22.3	85.8	53.5
Aug	146.3	36.3	23.2	86.2	52.2
Sep'08	135.6	34.2	21.9	86.0	52.5
Oct.	214.1	32.1	22.3	87.5	54.8
Nov	158.1	31.1	19.1	90.5	53.2
Dec	52.8	30.5	19.5	91.5	55.8
Jan'11	1.6	33.1	20.8	88.2	49.2
Feb	1.6	35.4	21.2	87.5	47.5
Mar	3.5	37.5	22.9	86.8	46.8
Total	**842.6**	**422.1**	**265.9**	**1037.3**	**610.8**
Average	**70.21**	**35.18**	**22.16**	**86.44**	**50.90**

* Source: Department of Agriculture, Salem

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

Category	Population	Production	Productivity/Animal/ annum
Cattle			
Crossbred	428588	Milk -21548525 lit	1825 lit
Indigenous	165259	Milk – 12145250 lit	960 lit
Buffalo	176521	Milk - 261856250	1250 lit
Sheep			
Crossbred	-		
Indigenous	371026	Meat-5865450 kg	18 kg
Goats	497814	Meat-7152525 kg	16 kg
Pigs			
Crossbred	33270	Meat-1557325 kg	60 kg
Indigenous			
Rabbits	2575	Meat-4250 kg	2 kg
Poultry			
Hens	2215280	Eggs-553820000	220-250 eggs
Desi	215725	Eggs-553820000	80-90eggs
Improved	**-**		
Ducks	**-**		
Turkey and others	-		

Category	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
Fish			
Inland	32490.84	6585	202.67

*Source: Department of Animal Husbandry, Salem

2.7 District profile has been prepared and submitted : Yes

2.8 Details of Operational area / Villages

3 2.8 Details of Operational area / Villages
4

Sl. No	Taluk	Name of the Block	Name of the village	How long is the village covered under operational area of the KVK (years)	Major Crops & Enterprises	Major Problem Identif0ied	Identified Thrust Areas
1.	Salem	Salem	Puthur	6	Banana	Lack of knowledge in production technology	Crop management
		Panamarathupatti	Nalikkalpatti	7	Redgram	Poor establishment	Crop management
			Nalikalpatti	5	Tapioca	Imbalanced nutrition	Crop management
			Nalikalpatti	3	Paddy	Alkaline soils and non adoption of reclamation measures	Crop management
			Nalikalpatti	2	Dairy	Infertility, high inter calving period, repeat breeder	Breeding management
			Nalikalpatti	2	Sheep and goat	Ecto and endo parasites Bacterial and viral diseases	Disease management
			Nalikalpatti	8	Mango	lack of knowledge on fertilizer application	Foliar nutrition
			Pannamarathupatti	6	Maize	Low yield	Crop management
			Kalarampatti				

			Panamara thupatti	5	Tapioca	Imbalanced nutrition	Crop management
			Panamara thupatti	2	Dairy	Anestrous, low milk yield Infertility, high inter calving period, repeat breeder	Breeding management
			Panamara thupatti	2	Sheep and goat	Ecto and endo parasites Bacterial and viral diseases	Disease management
			Mallur	6	Mango	lack of knowledge on fertilizer application	Foliar nutrition
			Nathaimedu	5	Paddy	Drudgery in weeding operation	Crop management
			Nathaimedu	6	Banana	Fusarium wilt, nematode infestation, staking, Pre and post harvest problems, micro nutrient problems	Crop management
			Ammapalayam	5	Poultry	High Mortality	Disease management
			P .Mettur	2	Poultry	Poor hatchability	Reproductive Management
			Ammapalayam	5	Fodder crop	Lack of awareness on fodder crops & chaff cutter	Farm Mechanisation
			Nathaimedu	5	Fodder crop	Lack of awareness on fodder crops & chaff cutter	Farm Mechanisation
			Sandhiyur	5	Fodder crop	Lack of awareness on fodder crops & chaff cutter	
2.	Sankagiri	Sankagiri	Thevur	5	Sugarcane	Lack of knowledge on micronutrient problem	Foliar application

			Thevur	5	Dairy	Anestrous, Infertility, high inter calving period, repeat breeder	Breeding management
			Thevur	2	Poultry	High Mortality, Ranikhet disease	Disease management
			Konganapuram	2	Maize	Lack of knowledge on ICMP	Crop management
	Gangavalli	Thalaivasal	Deviakurichi	3	Redgram	Lack of knowledge on seed production techniques	Seed production
	Omalur	Omalur	Omalur	3	Maize	Lack of knowledge on ICMP	Crop management
3.	Mettur	Kolathur	Elamarathukadu	2	Cotton	Lack of knowledge on ICMP	Crop management
	Mettur	Mecheri	Mecheri	4	Tomato	Local varieties Poor nursery management	HYV Shade net nursery
		Kolathur	Nariyampatti	2	Wheat	Lack of awareness about wheat cultivation	Crop Introduction
3.	Attur	Pedanaickenpalayam	Thumbal	3	Paddy	Low yield	Crop management
		Gangavalli	Ulipuram	4	Wheat	Lack of awareness about wheat cultivation	Crop Introduction
			Gangavalli	3	Fodder crop	Lack of awareness about fodder grass	Mixed fodder management
		Tharamangalam	Ulaiyur	2	Wheat	Lack of awareness about wheat cultivation	Crop Introduction
		Attur	Thumbal	3	Wheat	Lack of awareness about wheat cultivation	Crop Introduction
			Kalpaganur	2	Poultry	High Mortality, Ranikhet disease	Disease management

2.9 Priority thrust areas

S. No	Thrust area
1	Popularization of new high yielding varieties and hybrids
2	Popularization of labour saving farm implements
3	Sustainable sugarcane initiative and System of Rice Intensification
4	Precision farming
5	Improved Agricultural Practices in Mango
6	Protray nursery techniques
7	Propagation techniques in horticulture crops
8	Value added products in fruits and vegetables
9	Micro irrigation & fertigation
10	Soil & moisture conservation
11	Integrated weed management
12	Integrated nutrient management for Agricultural and Horticultural Crops
13	Rejuvenation of old & unproductive orchards of fruit crops
14	Organic farming
15	Seed Production technologies
16	Integrated Pest and Disease management
17	Backyard Poultry – Broiler, Turkey, Quail rearing
18	Reproductive management in dairy cattle
19	Disease management in livestock
20.	Feeding management in livestock
21	Fodder cultivation and feeding management in dairy cattle

PART III - TECHNICAL ACHIEVEMENTS

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

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
8	8	38	38	16	16	130	130

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
-	534	-	14770	-	8301	-	27606

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
Paddy	13	Mango grafts	1100
		Guava layers	250
		Cumbu napier CO4	20000
		Guinea grass	4000

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	-	Parasitoids	32000 Nos.
Quail -	500 birds	*Trichoderma viridi*	10 kg
Giriraja	250 birds	Vermicompost	600 kg
		Microbial consortia	1000 litres

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

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
													No.	Kg
1	Crop Introduction	Paddy	Low yield	-	Popularisation of Paddy variety CORH3 through SRI	1	1	1	1	0.24	-	-	-	-
2	Varietal evaluation	Wheat	Crop diversification	-	Popularization of Hill Wheat under Soil Test Based Fertilizer Prescription in Salem District	6	1	-	7	2	-	-	-	-
3	Crop introduction	Tomato	-	-	Popularization of tomato hybrid COTH 2	6	3	2	-	500 gms	-	-	6	
4	Crop Management	Paddy	Drudgery in weeder operation under SRI	Assessment of Suitable weeders in SRI	-	1	1	-	1	-	-	-	-	-
5	Crop management	Paddy	Non adoption of reclamation measures, Non adoption of organic manures	-	Popularization of problem soil crop management in paddy	4	-	-	6	0.25	-	-	-	-

6	Crop management	Maize	Low yield Less income		Popularisation of Maize maxim to realize higher productivity	4		1	1	0.60	-	-	-	-
7	Crop management	Redgram	Poor establishment Less plant population	Evaluation of planting method in Redgram	-	2	-	1	1	Redgram 0.40	-	-	-	-
8	Crop management	Redgram	Low yield Less income		Popularisation of seed production in Redgram	3		1	1	0.40	-	-	-	-
9	Crop management	Sugarcane	Non adoption foliar spray in sugarcane Poor application of organic manures in long run and also due to intensive cultivation, prevalence of the micronutrient deficiencies in majority of the farmers field.	Assessment of foliar spray in Sugarcane for higher productivity	-	2	-	1	1	-	-	-	-	-
10	Crop management	Turmeric	Heavy incidence of leaf spot	-	Integrated Crop Management practices in	5	-	2	3	-	-	-		

			rhizome rot diseases Poor yield		Turmeric									
11	Crop management	Tapioca	Imbalanced nutrition and poor soil health	Refinement of INM practices in Tapioca	-	4	-	-	5	-	-	-	-	-
12	Crop management	Mango	Fruit drop Low yield Poor quality	Assessment of foliar spray in mango	-	5	2	1	1	-	-	-	5	15
13	Crop management	Banana		-	Integrated Crop Management Practices in banana	5	3	2	-	-	-	-	5	25
14	Crop protection	Onion	Heavy incidence of root rot diseases Poor yield	-	Management techniques for basal rot in Onion	3	-	1	1	-	-	-		
15	Crop protection	Tapioca	Heavy incidence of mealy bug Poor yield	-	IPM practices for mealy bug in Tapioca	5		2	4	-	-	-		
16	Silkworm protection	Silkworm	Poor management of insect pests and diseases of silkworm Poor yield	-	Popularization of IPDM packages for Silkworm pest and disease management	4	-	1	2	-	-	-		
17	Farm	Sugarca	Lack of	-	Popularisation of	5	3	2	2	-	-	-	-	-

	Mechanisation	ne	knowledge on farm mechanisation		Mechanisation in Sugarcane									
18	Farm Mechanisation	Fodder	Lack of knowledge on chaff cutter	-	Popularisation of Chaff cutter in the intensive system od goat rearing	5	3	2	1	-	-	-	-	-
19	Reproductive Management	Livestock - Dairy Cows	Poor Conception %	Management of infertility in cross breed dairy cows	-	7	-	-	5	-	-	-		
20	Feeding Management	Livestock - Dairy Cows	Non availability of pasture lands,	Assessment of mixed fodder model	-	9	3	1	4	-	-	-		
21	Disease Management	Poultry- Desi Chicken	High mortality	-	Oral pellet vaccination to control Ranikhet disease	6	-	-	3	-	-	-	-	-
22	Poultry Management	Poultry	Poor hatchability& non availability of brooding hen	-	Popularisation of low cost incubator in backyard poultry farming	4	1	1	4					
23	Goat Management	Caprine	Low birth weight and high mortality	-	Improving the productivity of Goat	10	2	-	3					

3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/ enterprise	No.of programmes conducted				No. of farmers covered															
				OFT	FLD	Training	Others Field day	OFT				FLD				Training				Others (field day)			
								General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
								M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Popularisation of Paddy variety CORH3 through SRI	TNAU	Paddy	-	1	2	2	-	-	-	-	4	1	2	1	36	20	8	2	26	11	8	4
2	Popularization of Hill Wheat under Soil Test Based Fertilizer Prescription in Salem District	IARI, Wellington	Wheat	-	1	7	1	-	-	-	-	4	1	1	-	40	20	11	6	10	9	6	2
3	Popularization of tomato hybrid COTH 2 Seed treatment with *T.viride* Protray nursery raising Drip fertigation Staking techniques	TNAU	Tomato	-	1	10	1	-	-	-	-	3	1	2	-	89	23	11	5	13	8	5	6
4	Assessment of Suitable weeders in SRI	TNAU	Paddy	1	-	2	1	4	-	1	-	-	-	-		28	10	12	6	11	9	3	2
5	Popularization of problem soil crop management in paddy	TNAU	Paddy	-	1	4	2	-	-	-	-	5	-	1	-	21	33	13	8	22	15	8	12
6	Popularisation of Maize maxim to	TNAU	Maize	-	-	4	1	-	-	-		6		2	-	75	47	14	6	32	8	12	4

	realize higher productivity																					
7	Evaluation of planting method in Redgram	TNAU	Redgram	1	-	2	1	4	-	-	1	-	-	-	-	66	15	4	2	23	12	4	5
8	Assessment of mini mobile sprinkler in pulse productivity		Pulses	1	-	2	1	2	1	2	-	-	-	-	-	22	10	6	2	15	6	4	1
9	Popularisation of seed production in Redgram	TNAU	Redgram	-	-	3	1	-	-	-		3	-	1	-	86	42	12	4	25	32	4	3
10	Assessment of foliar spray in Sugarcane for higher productivity	TNAU	Sugarcane	1	-	2	1	4	-	1	-	-	-	-	-	58	17	8	4	32	14	2	2
11	Integrated Crop Management practices in Turmeric	TNAU	Turmeric	-	1	7	3	-	-	-	-	4	2	1	1	172	44	18	32	85	25	44	10
12	Refinement of INM practices in Tapioca	TNAU	Tapioca	1	-	4	1	2	1	-	-	-	-	-	-	25	16	19	4	9	16	9	5
13	Spraying of foliar nutrition RDF and Mango special spraying (5-10g /lit) RDF + Urea 0.5 % during Feb. + spraying of 20-40 g of SOP / litre of water	TNAU & IIHR	Mango	1	-	6	2	3	1	-	1	-	-	-	-	58	12	7	2	15	6	5	3
14	Integrated Crop Management Practices in banana Sucker treatment Foliar application of banana booster	TNAU & IIHR	Banana	-	1	7	3	-	-	-	-	3	-	2	-	127	46	43	16	32	17	12	9

	Pest and disease management Staking and bunch cover Preharvest sprays (SOP)																						
14	Management techniques for basal rot in Onion	TNAU	Onion	-	1	4	1	-	-	-	-	6	2	1	1	52	23	21	10	42	12	20	16
15	IPM practices for mealy bug in Tapioca	TNAU	Tapioca	-	1	7	2	-	-	-	-	3	3	2	-	139	26	21	16	75	28	35	22
16	Popularization of IPDM packages for Silkworm pest and disease management	TNAU	Silkworm	-	1	5	1	-	-	-	-	2	2	1	-	95	63	26	11	66	15	25	8
17	Popularisation of Mechanisation in Sugarcane	TNAU	Sugarcane	-	1	7	1	-	-	-	-	5	3	2	-	92	25	10	2	15	6	5	2
18	Management of infertility in cross breed dairy cows	TANUVAS	Livestock -Dairy Cows	1	-	7	2	6	2	2	-	--	-	-	-	112	25	16	5	16	4	2	-
19	Assessment of mixed fodder model	TNAU, IGFRI, Jhansi	Livestock -Dairy Cows	1	-	10	3	5	3	2	-	-	-	-	-	176	56	32	12	31	15	4	1
20	Oral pellet vaccination to control Ranikhet disease	TANUVAS	Poultry-Desi Chicken	-	1	6	3	--	-	-	-	4	3	1	2	132	37	6	15	28	25	7	5
21	Popularisation of low cost incubator in backyard poultry farming	-	Poultry	-	1	4	4	-	-	-	-	6	2	1	1	72	23	4	2	25	14	5	4
22	Improving the productivity of Goat	-	Caprine	-	1	10	3	-	-	-	-	5	3	2	-	175	65	25	6	21	6	-	-
23	Popularisation of	TNAU	Caprine	-	1	5	1	-	-	-	-	5	2	3	2	65	20	8	6	16	5	3	2

	Chaff cutter in the intensive system od goat rearing																					

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	TOTAL
Integrated Nutrient Management				1		1				**2**
Varietal Evaluation										
Integrated Pest Management										
Integrated Crop Management			1							**1**
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management	1									**1**
Resource Conservation Technology										
Farm Machineries			1							**1**
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total	**1**		**2**	**1**		**1**				**5**

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management									**1**	**1**
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										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total									**1**	**1**

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management	1					**1**
Feed and Fodder	1					**1**
Small Scale income generating enterprises						
TOTAL	**2**					**2**

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

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

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	Mango	Assessment of foliar spray in mango	5	5	2
	Sugarcane	Assessment of foliar spray in Sugarcane for higher productivity in SSI-133 clone	5	5	2
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management	Redgram	Evaluation of planting method in Redgram	5	5	2
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management	Paddy	Assessment of Suitable Weeders in SRI	5	5	2
Resource Conservation Technology					
Farm Machineries	Pulses	Assessment of mini mobile sprinkler in pulse productivity	5	5	2
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			25	25	10

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	Tapioca	Refinement of INM practices in Tapioca	5	5	2
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					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			**5**	**5**	**2**

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 Reproductive management	Dairy cows	Management of infertility in cross breed cows	5	10
Feed and fodder	Dairy cows	Assessment of mixed fodder model	5	5
Small scale income generating enterprises				
Total			10	15

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

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total				

4.C1. Results of Technologies Assessed

Results of On Farm Trial **OFT - 1**

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	Irrigated	Drudgery in weeder operation under SRI	Assessment of Suitable weeders in SRI	5	TO1 Farmers practice cono weeder TO2 Farmers practice rotary weeder TO3 Power operated two row weeder(TNAU) TO4 Power operated two row weeder (Madurai)	WCE, yield, BC Ratio	62% , 6.7 t/ha & 1:1.6 71%, 7.2 t/ha & 1:1.9 89%, 10.6 t/ha & 1:2.7 84%, 9.1 t/ha & 1: 2.3	Among the various manual and power operated weeders assessed the TNAU developed Two Row Power operated weeder performed better in all type of soils	The drudgery in operation of manual weeders so the number of weeder operation is not done properly, with TNAU Two Row power operated weeder is very easy and no drudgery in weeder operation under SRI	Nil	-

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	6.7	t/ha	47000	1.6
Technology option 2	TNAU	7.2	t/ha	52000	1.9
Technology option 3	TNAU	10.6	t/ha	76000	2.7
Technology option 4	Farmer	9.1	t/ha	64000	2.3

OFT-2

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**
Red gram	Irrigated	Poor establishment Less plant population	Evaluation of planting method in Redgram	5	TO1-Direct sowing TO2- Raised bed seedlings TO3- Protray seedlings TO4-poly bag seedlings	Seed yield (kg/ha)	1056 1042 1165 1250	Seedlings transplanted from poly bag recorded higher yield than the other tratments	Farmers highly satisfied with the transplanting of seedlings raised from poly bag	-	-

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**	**18**
Technology option 1 (Farmer's practice) Direct sowing	-	1056	Kg/ha	16680	2.11
Technology option 2 Raised bed seedlings	-	1042	Kg/ha	16060	2.05
Technology option 3 Protray seedlings	-	1165	Kg/ha	18950	2.18
Technology option 4 Poly seedlings	TNAU	1250	Kg/ha	21700	2.37

OFT-3

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**
Pulses	Irrigated	Shortage of water	Assessment of mini mobile sprinkler in pulse productivity	5	TO1-Flood Irrigation TO2- Mini mobile sprinkler	Yield	**Trial under progress**	-	-	-	-

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**	**18**
Technology option 1 (Farmer's practice) Direct sowing					
Technology option 2 Raised bed seedlings		Trail under progress			
Technology option 3 Protray seedlings					
Technology option 4 Poly seedlings					

OFT-4

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
Sugar cane	Irrigated	Non adoption foliar spray in sugarcane Poor application of organic manures in long run and also due to intensive cultivation, prevalence of the micronutrient deficiencies in majority of the farmers field.	Assessment of foliar spray in Sugarcane for higher productivity	5	Farmer's practice-No Spray TO2 - Foliar spray TNAU Sugarcane booster at 45th, 60th and 75th DAP@2,3 and 4 kg/ac respectively TO3- Foliar spray of MN mixture at 45th, 60th and 75th DAP@ 0.5,1.0 and 2.0% respectively	cane yield (t/ha)	113 132 125	Yield (132 t/ha), net return (Rs.107400/ha) and BC ratio(2.75) were higher in the foliar spray of sugarcane booster at 45,60 and 75 DAP	Farmers highly satisfied with the foliar spray of sugarcane booster	-	-

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. /ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) No Spray	-	113	t/ha	90600	3.00
Technology option 2 Foliar spray TNAU Sugarcane booster at 45th, 60th and 75th DAP@2,3 and 4 kg/ac respectively	TNAU	132	t/ha	107400	3.12
Technology option 3 Foliar spray of MN mixture at 45th, 60th and 75th DAP@ 0.5,1.0 and 2.0% respectively	SBI	125	t/ha	102000	3.10

OFT-5

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
Mango	Rainfed	Fruit drop Low yield Poor quality	Assessment of foliar spray in mango	**5**	TO 1- RDF (1:1:1.5 kg NPK / tree) TO 2- RDF and Mango special spraying (5-10g /lit) as follows November (Pre bloom)December (bloom)January (Post bloom)TO 3- RDF + Urea 0.5 % during Feb. + spraying of 20-40 g of SOP / litre of water on I spray Peanut stageII and III spray15 days after I and II spray respectively	Fruit setting %, Fruit yield	-	**Treatments have been imposed, trees in full bearing stage. Results will be assessed by the end of May**	-	-	-

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	-	-	-	-
Technology option 2	IIHR				
Technology option 3	TNAU				

OFT-6

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
Dairy cows	Irrigated/ Rainfed	Non availability of pasture lands, Lack of knowledge on requirement of land area, partitioning land area, suitable fodder crops for grazing, mixed cropping and intercropping of fodder crops	Assessment of mixed fodder model	5	FP - TO1- Mono cropping of fodder TO2- Cultivation of guinea grass + Hedge Lucerne as a mixed crop under irrigated condition TO3-Cutivation of Kolukaatai grass + Stylo as a mixed crop under rainfed condition	Yield/ha	TO1-25t TO2-200 t TO3-40 t	Ensures both carbohydrate and protein source for animals under irrigated and Rainfed condition.	Farmers were highly satisfiedand convinced.	Nil	-

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	25	t/ha	25000	2.25
Technology option 2	TNAU	250	t/ha	150000	3.14
Technology option 3	IGFRI, Jhansi	40	t/ha	45000	2.80

OFT-7

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
Dairy cows	Semi Intensive system of rearing	Decreased conception (30 per cent infertility) and increased calving interval (18 months) which reduces the milk yield and income of dairy farmers	Management of infertility in cross breed dairy cows	5	FP - TO1- Repeated artificial insemination TO2- Supplementation of mineral @50g/day for 3months & injection of tonophosphan TO3- Estrus synchronization with PGF2alpha and fixed time Artificial Insemination after 72 hours	i. Conception % ii. No. of AI	FP- 50% TO2-70% TO3-100% FP- 6 TO2-3 TO3-1.25	Conception % was high & No. of AI was low in PGF2alpha injected animals.	Farmers were highly satisfied. Conception % increased & calving interval reduced. Milk yield & income increased	Nil	-

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	-	50	%	30000	1.54
Technology option 2		70	%	44000	1.75
Technology option 3	TANUVAS	100	%	62500	2.1

4.C2. Details of each On Farm Trial for assessment

OFT.1

1	**Title of Technology Assessed**	**Assessment of Suitable weeders in SRI**
2	**Problem Definition**	Drudgery in weeder operation under SRI
3	**Details of technologies selected for assessment**	TO1 Farmers practice cono weeder TO2 Farmers practice rotary weeder TO3 Power operated two row weeder(TNAU) TO4 Power operated two row weeder (Madurai)
4	**Source of technology**	TNAU
5	**Production system and thematic area**	Irrigated and Crop management
6	**Performance of the Technology with performance indicators**	Among the various manual and power operated weeders assessed the TNAU developed Two Row Power operated weeder performed better in all type of soils
7	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques**	The drudgery in operation of manual weeders so the number of weeder operation is not done properly, with TNAU Two Row power operated weeder is very easy and no drudgery in weeder operation under SRI
8	**Final recommendation for micro level situation**	TNAU Developed two row power operated weeder can be recommended for SRI for all soils
9	**Constraints identified and feedback for research**	Cannot be used in both direction at field condition so the weeders which can be used on both direction can be developed
10	**Process of farmers participation and their reaction**	satisfied

OFT.2

1	**Title of Technology Assessed**	**Evaluation of planting method in Redgram**
2	**Problem Definition**	Poor establishment Less plant population
3	**Details of technologies selected for assessment**	TO1-Direct sowing TO2- Raised bed seedlings TO3- Protray seedlings TO4-poly bag seedlings
4	**Source of technology**	TNAU
5	**Production system and thematic area**	Irrigated and Crop management
6	**Performance of the Technology with performance indicators**	Seedlings transplanted from poly bag recorded higher yield than the other tratments
7	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques**	Farmers highly satisfied with the transplanting of seedlings raised from poly bag Transplanting reduced one weeding Matured earlier than other technology options
8	**Final recommendation for micro level situation**	Seedlings transplanted from poly bag can be recommended for transplanting in Redgram
9	**Constraints identified and feedback for research**	Planting needs more labourers
10	**Process of farmers participation and their reaction**	The farmers were highly satisfied with the overall increase in yield.

OFT.3

1	**Title of Technology Assessed**	**Assessment of mini mobile sprinkler in pulse productivity**
2	**Problem Definition**	Water scarcity
3	**Details of technologies selected for assessment**	TO1-Flood Irrigation TO2- Mini mobile sprinkler
4	**Source of technology**	**Trial is under progress**
5	**Production system and 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**	

OFT.4

1	**Title of Technology Assessed**	**Assessment of foliar spray in Sugarcane for higher productivity**
2	**Problem Definition**	Non adoption foliar spray in sugarcane Poor application of organic manures in long run and also due to intensive cultivation, prevalence of the micronutrient deficiencies in majority of the farmers field
3	**Details of technologies selected for assessment**	Farmer's practice-No Spray TO2 - Foliar spray TNAU Sugarcane booster at 45th, 60th and 75th DAP@2,3 and 4 kg/ac respectively TO3- Foliar spray of MN mixture at 45th, 60th and 75th DAP@ 0.5,1.0 and 2.0% respectively
4	**Source of technology**	TNAU
5	**Production system and thematic area**	Irrigated and Crop management
6	**Performance of the Technology with performance indicators**	Foliar spray of sugarcane booster recorded higher yield than the other tratments
7	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques**	Farmers highly satisfied with the foliar spray of sugarcane booster
8	**Final recommendation for micro level situation**	Foliar spray of sugarcane booster can be recommended for sugarcane for increasing the productivity
9	**Constraints identified and feedback for research**	Booster cost is high
10	**Process of farmers participation and their reaction**	The farmers were highly satisfied with the overall increase in yield.

OFT.5

1	**Title of Technology Assessed**	**Assessment of foliar spray in Mango**
2	**Problem Definition**	Fruit drop Low yield Poor quality
3	**Details of technologies selected for assessment**	TO 1- RDF (1:1:1.5 kg NPK / tree) TO 2- RDF and Mango special spraying (5-10g /lit) as follows November (Pre bloom)December (bloom)January (Post bloom)TO 3- RDF + Urea 0.5 % during Feb. + spraying of 20-40 g of SOP / litre of water on I spray Peanut stageII and III spray15 days after I and II spray respectively
4	**Source of technology**	TNAU
5	**Production system and thematic area**	Rainfed and Crop management
6	**Performance of the Technology with performance indicators**	**Treatments have been imposed, trees in full bearing stage. Results will be assessed by the end of May**
7	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques**	
8	**Final recommendation for micro level situation**	
9	**Constraints identified and feedback for research**	
10	**Process of farmers participation and their reaction**	

OFT.6

1	**Title of Technology Assessed**	**Management of infertility in cross breed dairy cows**
2	**Problem Definition**	Decreased conception (30 per cent infertility) and increased calving interval (18 months) which reduces the milk yield and income of dairy farmers
3	**Details of technologies selected for assessment**	FP - TO1- Repeated artificial insemination TO2- Supplementation of mineral @50g/day for 3months & injection of tonophosphan TO3- Estrus synchronization with PGF2alpha and fixed time Artificial Insemination after 72 hours
4	**Source of technology**	TANVASU
5	**Production system and thematic area**	Semi intensive system of rearing Reproductive management
6	**Performance of the Technology with performance indicators**	Conception % was high (95) in PGF2alpha injected animals (TO3) when compared to TO1. Number of Artificial Insemination was very low (1.25) The performance indicators were a. Conception % b. No. of Artificial Insemination
7	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring**	Farmers reported that conception % was high in PGF2alpha injected animals. Number of Artificial Insemination was very low (1.25). Inter calving period reduced in dairy cows. Repeat breeder problem controlled and income increased.
8	**Final recommendation for micro level situation**	Hormonal injection (PGF2alpha) 3 days before AI is very good response in conception percentage.
9	**Constraints identified and feedback for research**	NIL
10	**Process of farmers participation and their reaction**	The farmers were highly satisfied because calving interval reduced and income increased.

OFT.7

1	**Title of Technology Assessed**	Assessment of mixed fodder model
2	**Problem Definition**	Non availability of pasture lands, Lack of knowledge on requirement of land area, partitioning land area, suitable fodder crops for grazing, mixed cropping and intercropping of fodder crops
3	**Details of technologies selected for assessment**	FP - TO1- Mono cropping of fodder TO2- Cultivation of guinea grass + Hedge Lucerne as a mixed crop under irrigated condition TO3- Cutivation of Kolukaatai grass + Stylo as a mixed crop under rainfed condition
4	**Source of technology**	TNAU & IGFRI, Jhansi
5	**Production system and thematic area**	Irrigated/ Rainfed Feeding Management
6	**Performance of the Technology with performance indicators**	Cultivation of guinea grass + Hedge Lucerne as a mixed crop under irrigated condition- Maintain Carbohydrate and protein ratio in animal feed(TO2) Cutivation of Kolukaatai grass + Stylo as a mixed crop under rainfed condition(TO3) TO1-25t TO2-200 t TO3-40 t
7	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring**	Farmers highly satisfied with the mixed cropping under irrigated condition & rainfed condition
8	**Final recommendation for micro level situation**	-
9	**Constraints identified and feedback for research**	-
10	**Process of farmers participation and their reaction**	Farmers convinced with this Mixed cropping under irrigated condition & rainfed condition. Maintain proper Carbohydrate and protein ratio in animal feed

4.D1. Results of Technologies Refined

Results of On Farm Trial **OFT-1**

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 farmer	Details of refinement done
1	2	3	4	5	6	7	8	9	10	11
Tapioca	Irrigated	Non adoption of balanced application of fertilizers at right time Non application of micronutrients	Refinement of INM practices in Tapioca	3	Recommended fertilizer + 1.0 % $FeSO_4$ + 0.5 % $ZnSO_4$ at 60 & 90 DAP as foliar spray Recommended fertilizer + $ZnSO_4$ 12.5 kg + $FeSO_4$ 25 kg as basal	Tuber yield	24 t/ ha 21 t/ ha	The yield was 13% less in the refined treatment compared to recommended practice	Foliar application was better. But for sustainability, soil application of $FeSO_4$ and $ZnSO_4$ can be made it a practice.	Foliar application of micronutrients was found better than soil application

Technology Refined	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
12	13	14	15	16	17
Farmer's practice	-	18	t/ ha	37000	2.05
25 t FYM /ha + 45:90:120 kg NPK /ha as basal and 45 kg N and 120 kg K as top dressing on 90th DAP + 1.0 % $FeSO_4$ + 0.5 % $ZnSO_4$ at 60 & 90 DAP as foliar spray	TNAU	24	t/ ha	54000	2.52
Application of 25 t FYM /ha+ 45:90:120 kg NPK /ha as basal and application of 45 kg N and 120 kg K as top dressing on 90th DAP + Soil application of $ZnSO_4$ 12.5 kg + $FeSO_4$ 25 kg as basal	TNAU	21	t/ ha	47200	2.18

4.D.2. Details of each On Farm Trial for refinement

1	Title of Technology refined	Refinement of INM practices in Tapioca
2	Problem Definition	Non adoption of balanced application of fertilizers at right time. Non application of micronutrients
3	Details of technologies selected for refinement	TO1 – Farmers' practice TO2 - 25 t FYM /ha + 45:90:120 kg NPK /ha as basal and 45 kg N and 120 kg K as top dressing on 90^{th} DAP + 1.0 % $FeSO_4$ + 0.5 % $ZnSO_4$ at 60 & 90 DAP as foliar spray TO3 - Application of 25 t FYM /ha+ 45:90:120 kg NPK /ha as basal and application of 45 kg N and 120 kg K as top dressing on 90^{th} DAP + Soil application of $ZnSO_4$ 12.5 kg + $FeSO_4$ 25 kg as basal
4	Source of technology	TNAU
5	Production system and thematic area	Irrigated and Crop management
6	Performance of the Technology with performance indicators	Yield was higher in foliar application of $FeSO_4$ and $ZnSO_4$ compared to the refined treatment i.e., soil application of Zn and $FeSO_4$
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Soil application was costlier than foliar application Foliar application showed immediate response compared to soil application
8	Final recommendation for micro level situation	Foliar application is better and suitable for immediate recovery of crop. . However, soil application has to be recommended to rectify the micronutrient deficiency on long –term basis
9	Constraints identified and feedback for research	Nil
10	Process of farmers participation and their reaction	Poor awareness among the farmers about micronutrient deficiency. Farmers now were aware of micronutrient deficiencies in different crops and the importance of using them.

PART V - FRONTLINE DEMONSTRATIONS

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

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
	Oilseeds													
1	**Pulses**	Rainfed	Kharif 2010	Redgram	VBN2	-	Crop management	Popularisation of seed production in Redgram	2	2	1	3	4	-
2	**Cereals**	Irrigated	Kharif 2010	Paddy		CORH3	Crop management	Popularisation of Paddy variety CORH3 through SRI	3	3	2	6	8	-
3		Irrigated	Rabi Oct 2010	Paddy	TRY 1	-	Crop management	Popularisation of problem soil crop management in paddy	3	3	2	6	8	-
4		Irrigated	Rabi Nov 2010	Wheat	CO W1	-	Crop diversification	Popularisation of Hill Wheat under Soil Test Based Fertilizer Prescription in Salem District	4	4	1	5	6	-
5	**Millets**	Irrigated	Kharif 2010	Maize		COHM 5	Crop management	Popularisation of Maize maxim to realize higher productivity	3	3	1	7	8	-

	Vegetables													
6	Tomato	Irrigated	Kharif	Tomato	-	COTH 2	Crop introduction	Popularization of tomato hybrid COTH 2	5	2	2	4	6	-
7	Onion	Irrigated	Kharif 2010	Onion	CO On 5	-	Crop protection	Manage ment techniques for basal rot	5	5	2	8	10	-
8	Tapioca	Irrigated	Kharif 2010	Tapioca	Mulluvadi	-	Crop protection	IPM practices for mealy bug	3	3	2	6	8	-
	Flowers													
	Ornamental													
	Fruit													
9	Banana	Irrigated	Kharif	Banana	G9	-	Crop management	Integrated Crop Management Practices in banana	2	1	1	4	5	-
10	**Spices and condiments**	Irrigated	Kharif 2010	Turmeri c	BSR 2	-	Integrated Crop Management	Integrated Crop Management practices	3	3	2	6	8	-
11	**Commercial crops**	Irrigated	Rabi Dec 2010	Sugarca ne	New variety COC(SC)24	-	Mechanization	Mechanization in Sugarcane	2 ha	2 ha	2	3	5	-
	Medicinal and aromatic													
	Fodder													
	Plantation													
	Fibre													
	Dairy													

12	**Poultry**	Semi intensive system	December-March 2010-11	-	Desi chicken	-	Disease management	Oral pellet vaccination to control Ranikhet disease	300 birds	300 birds	3	7	10	-
13		Semi intensive system	October-March 2010-11	-	Desi chicken, Japanese quail ,turkey	-	Brooding management	Popularisation of low cost incubator in backyard poultry farming	250 birds	250 birds	2	8	10	
	Rabbitry													
	Pigerry													
14	**Sheep and goat**	Semi intensive system	June-March 2010-11		Tellicherry	-	Nutrition management	Improving the productivity of Goat	150 goats	150 goats	2	8	10	-
	Duckery													
	Common carps													
	Mussels													
	Ornamental fishes													
	Oyster mushroom													
	Button mushroom													
	Vermicompost													
15	**Sericulture**	Irrigated	winter 2010	Silkworm	-	Multivoltine hybrid race (pure	Silkworm protection	Popularization of IPDM packages for Silkworm pest and disease management	500 dfl	500 dfl	1	4	5	-

						mysore x bivoltine)								
	Apiculture													
16	**Implements**	Irrigated	Rabi 2010	Goatary	Tellicherri	-	Mechanization	Popularization of Chaff cutter in the intensive system of goat rearing	150 goats	150 goats	2	8	10	-
	Others (specify)													

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

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
	Oilseeds												
1	**Pulses**	Rainfed	Kharif 2010	Redgram	VBN2	-	Crop management	Popularisation of seed production in Redgram	Kharif 2010	L	M	H	Sorghum
2	**Cereals**	Irrigated	Kharif 2010	Paddy	-	CORH3	Crop introduction	Popularisation of Paddy variety CORH3 through SRI	Rabi 2009	L	M	H	Paddy
3		Irrigated	Rabi Oct 2010	Paddy	TRY 1	-	Crop management	Popularisation of problem soil crop		M	M	M	Pulses

								management in paddy					
4		Irrigated	Rabi Nov 2010	Wheat	CO W1	-	Crop diversification	Popularisation of Hill Wheat under Soil Test Based Fertilizer Prescription in Salem District		M	L	M	Paddy
5	**Millets**	Irrigated	Kharif 2010	Maize	-	COHM 5	Crop management	Popularisation of Maize maxim to realize higher productivity	Kharif 2010	M	M	H	Paddy
	Vegetables												
6	Tomato	Irrigated	Kharif	Tomato	-	COTH 2	Crop introduction	Popularization of tomato hybrid COTH 2	Summer 2010	L	L	M	Brinjal
7	Onion	Irrigated	Kharif 2010	Onion	CO (On) 5	-	Crop protection	Management techniques for basal rot	Kharif 2010	L	H	M	Paddy
8	Tapioca	Irrigated	Kharif 2010	Tapioca	Mulluvadi CO.4	-	Crop protection	IPM practices for mealy bug	Kharif 2010	M	M	M	Tapioca
	Flowers												
	Ornamental												
	Fruit												
9	Banana	Irrigated	Rabi 2010	Banana	G9	-	Crop management	Integrated Crop Management Practices in banana	Kharif 2009	L	L	M	Turmeric
10	**Spices and condiments**	Irrigated	Kharif 2010	Turmeric	BSR 2	-	Integrated Crop Management	Integrated Crop Management practices	Kharif 2010	L	H	M	Paddy
	Commercial	Irrigated	Rabi	Sugarcane	New	-	Farm	Popularisation of	Summer	L	M	H	Sugarcane

			2010		variety COC(SC)24		Mechanisation	Mechanisation in Sugarcane	2010					
	Medicinal and aromatic													
	Fodder													
	Plantation													
	Fibre													
11	**Sericulture**	Irrigated	winter 2010	Silkworm	-	Multivoltine hybrid race (pure mysore x bivoltine)	Silkworm protection	Popularization of IPDM packages for **Silkworm** pest and disease management	winter 2010	L	H	H	Silkworm	

5.B. Results of Frontline Demonstrations

5.B.1. Crops

Crop	**Name of the technology demonstrated**	**Variety**	**Hybrid**	**Farming situation**	**No. of Demo.**	**Area (ha)**	**Yield (q/ha)**				**% Increase**	***Economics of demonstration (Rs./ha)**				***Economics of check (Rs./ha)**			
							Demo			**Check**		**Gross Cost**	**Gross Return**	**Net Return**	** **BCR**	**Gross Cost**	**Gross Return**	**Net Return**	** **BCR**
							H	L	A										
Oilseeds																			
Pulses	Popularisation of seed production in Redgram	VBN2		Rainfed	4	2	13.5	10.5	12.3	9.8	24.4	25000	91020	86020	3.6	18500	29400	10900	1.6
Cereals	Popularisation of Paddy variety CORH3	-	Paddy CORH3	Irrigated	8	3	100.9	80.6	90.75	70.00	29.6	24000	111575 0	91750	4.82	23000	90000	67000	3.91

	through SRI																		
Paddy	Popularisation of problem soil crop management in paddy	TRY 1	-	Irrigated	8	3	44	31	37.5	31	20.97	34000	93750	59750	2.76	34000	77500	43000	2.28
Wheat	Popularisation of Hill Wheat under Soil Test Based Fertilizer Prescription in Salem District	CO W1	-	Irrigated	6	4	42	30	36	-	-	14500	72000	57500	4.97	-	-	-	-
Millets	Popularisation of Maize maxim to realize higher productivity		COHM 5	Irrigated	8	3	75	51	62	48	29	25000	62000	37000	2.5	21000	48000	27000	2.2
Vegetables																			
Tomato	Popularization of tomato hybrid COTH 2	-	COTH 2	Irrigated	6	2	850	620	735	510	44.11	153250	514500	361250	3.35	139700	357000	217300	2.55
Onion	Management techniques for basal rot	CO (On) 5	-	Irrigated	10	5	156	125	141	84	67.9	32100	112000	79,900	3.49	26300	61300	35000	2.33
Tapioca	IPM practices for mealy bug	H266	-	Irrigated	8	3	305	254	280	202	38.6	30600	72500	41900	2.37	28000	50400	22400	1.8
Flowers																			
Ornamental																			
Fruit																			

Banana	Integrated Crop Management Practices in banana	G9	-	Irrigated	5	1	***Crop is in shooting stage*** .												
Spices and condiments																			
Turmeric	Integrated Crop Management practices	BSR 2	-	Irrigated	8	3	297	282	289	252	14.8	37300	145500	108200	3.90	30000	109200	79200	3.64
Commercial	Sugarcane Mechanization	New variety COC(SC) 24	-	Irrigated	5	2 ha	1550	1470	1510	1130	33.63	97000	302000	205000	3.11	75000	135600	60600	1.81
Medicinal and aromatic																			
Fodder																			
Plantation																			
Fibre																			
Others																			

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

** BCR= GROSS RETURN/GROSS COST

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

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Demo**	**Check**
Paddy		
i. number of tillers per hill	78	42
ii. number of grains per panicle	310	230
Turmeric		
Leaf spot (%)	9.8	72
Rhizome rot (%)	7.5	49
Onion		
i.Thrips incidence (No./ clump)	4	42
ii. Crop damage (%)	8	40
Tapioca		
i, Mealy bug incidence (%) after neem oil spraying and release of parasitoids	32	89
ii. Mealy bug reduction (%)	48	0
Silk worm		
i.Uzifly incidence	1.5	32.6
ii.pebrine disease incidence (%)	2.2	10.9
iii. Grasserie disease incidence (%)	2.9	11.8
iv, Flatcherie disease incidence (%)	1.7	38.4

5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (q/ha)				% Increase	*Economics of demonstration Rs./unit)				*Economics of check (Rs./unit)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Dairy																	
Poultry	Oral pellet vaccination to control Ranikhet disease	Desi chicken	10	300birds	98	92	95	67	41.79	16500	63840	56460	3.86	14200	32500	18300	2.28
	Popularisation of low cost incubator in backyard poultry farming		10	250birds	82	76	79	52	46.29	28500	49200	20700	1.72	17500	24200	6700	1.38
Rabbitry																	
Pigerry																	
Sheep and goat	Improving the productivity of Goat	Tellicherry	10	150goats	2kg	1.7kg	1.85kg	1.5kg	23.33	28000	93000	65000	3.32	21000	62000	41000	2.95
Duckery																	
Others (pl.specify)																	

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

** BCR= GROSS RETURN/GROSS COST

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Demo**	**Check if any**
Poultry **Control of Ranikhet disease**		
Ranikhet disease incidence	Nil	70
Haemagglutination- Inhibition titer (filter paper technique)	512	64
Livability %	95	67
Body weight (kg/ bird)	1.85	1.6
Low cost incubator		
Hatchability% Desi chicken Giriraja Japanese quail Turkey	 79 81 72 64	 52 - - -
Embryonic mortality % Desi chicken Japanese quail Turkey	 6.5 4.5 9.5	 22 - -
Improving the productivity of Goat		
Birth Weight of kid (kg/kid)	1.85	1.5
Mortality %	92	80
Body Weight at marketing age (kg/ animal)	26	21.5

5.B.3. Fisheries

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m^2)	Yield (q/ha)				% Increase	*Economics of demonstration Rs./unit) or (Rs./m2)				*Economics of check Rs./unit) or (Rs./m2)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Common carps																	
Mussels																	
Ornamental fishes																	
Others (pl.specify)																	

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST
H-High L-Low, A-Average

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Demo**	**Check if any**

5.B.4. Other enterprises

2	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area {m^2}	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./unit) or (Rs./m2)				*Economics of check (Rs./unit) or (Rs./m2)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Oyster mushroom																	
Button mushroom																	
Vermicompost																	
Sericulture	Popularization of IPDM packages for Silkworm pest and disease management	Multivoltine hybrid race (pure mysore x bivoltine)	5	500 dfl	0.85	0.76	0.81	0.49	65.31	12000	21500	9500	1.79	7800	8900	1100	1.14
Apiculture																	
Others (pl.specify)																	

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST
H-High L-Low, A-Average

Data on additional parameters other than yield (viz., additional income realized, employment generation, quantum of farm resources recycled etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Demo**	**Local**

5.B.5. Farm implements and machinery

Name of the implement	Cost of the implement in Rs.	Name of the technology demonstrated	No. of Demo	Area covered under demo in ha	Labour requirement in Mandays		% save	Savings in labour (Rs./ha)	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check			Gross cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Chaff Cutter	10400	Chaff cutter	10	150 goats	70 mandays	180 mandays	38.88%	22000	29000	98000	66000	3.37	38500	65000	26500	1.68

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

Data on additional parameters other than labour saved (viz., reduction in drudgery, time etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Demo**	**Local**
	-	**-**
	-	-

5.B.6. Cotton

5.B.6.1.Summary of demonstrations conducted under FLD cotton

Sl. No.	Category	Technology Demonstrated	Variety	Hybrid	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
						Proposed	Actual	SC/ST	Others	Total	
	Production Technology	Popularisation of ICMP in Cotton		RCH Bt 502	Summer 2011	15	15	5	32	37	-
	IPM										
	Farm Implements	Popularisation of farm implements in Cotton			Summer 2011	15	15	5	32	37	-

5.B.6.2 Production technology demonstrations

Performance of demonstrations

"Sowing was taken up during first week of March 2011. Now the crop is in vegetative stage"

Farming situation	Technology Demonstrated	Area (ha)	No.of demo.	Variety	Hybrid	Yield (q/ha)		% Increase	Economics of demonstration (Rs./ha)				Economics of local check (Rs./ha)			
						Demo	Local		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR

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 demo.	Variety	Hybrid	Yield (q/ha)		% Increase	Economics of demonstration (Rs./ha)				Economics of local check (Rs./ha)			
							Demo	Local		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Bt hybrids																	

5.B.6.3 Integrated pest management demonstrations

Farming situation	**Variety**	**Hybrid**	**No. of blocks**	**Total No. of Demo.**	**Area (ha)**	**Incidence of pest and diseases (%)**			**Seed Cotton Yield (q/ha)**			**Economics of demonstration (Rs./ha)**				**Economics of local check (Rs./ha)**			
						IPM	**Non IPM**	**% Change**	**IPM**	**Non IPM**	**% Change**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR**

5.B.6.4 Demonstrations on farm implements

Name of the implement	Area (Ha)	No. of Demo.	Name of the technology demonstrated	Labour requirement for operation (Rs./ha)		
				Demo	Local check	% change
Rotavator	15	37	Demonstration of Rotavor in cotton cultivation	750	1200	37.5
Power weeder	15	37	Demonstration of Power weeder in cotton cultivation	500	1000	50.0
Total	**30**	**74**				

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

Extension activity	No. of Programmes	Participants			SC/ST		
		Male	Female	Total	Male	Female	Total
Consultancy	4	25	16	41	5	7	12
Conventions							
Demonstrations	2	26	18	44	7	12	19
Diagnostic surveys							
Exhibition							
Farmer study tours							
Farmers Field school							
Field Days							
Field visits	6						
Gram sabha							
Group discussions	4						
Kisan Gosthi							
Kisan Mela							
Training for Extension Functionaries	1	12	2	14			
Training for farmers	3	95	28	123	16	12	28
Viedo show	3	95	28	123	16	12	28
Newspaper coverage	2						

Popular articles	1						
Publication							
Radio talks							
T.V. Programme							
Others (Pl.specify)							
TOTAL	26	253	92	345	44	43	87

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	Redgram	Popularisation of seed production in Redgram	Highly satisfied with more remunaration due to high cost of seed instead of grain
2	Paddy	Popularisation of Paddy variety CORH3 through SRI	The cooking quality is moderately fair
3	Paddy	Popularisation of problem soil crop management in paddy	Reclamation of alkaline soils using gypsum with addition of organic manure (Daincha) and cultivating TRY 1 (tolerant variety) resulted in 20.98 % increased yield over check. The BCR was 2.76 as against check (2.28).
4	Wheat	Popularisation of Hill Wheat under Soil Test Based Fertilizer Prescription in Salem District	Wheat crop was highly remunerative in this tract. Cultivation of hill wheat (CO W1) as an alternative crop for paddy or pulses gave increased yield (38.46%) compared to paddy. The BCR was 4.97.
5	Maize	Popularisation of Maize maxim to realize higher productivity	Highly satisfied with more yield due to maize maxim booster spray
6	Tomato	Popularization of tomato hybrid COTH 2	Farmers appreciated the performance of Hybrid tomato that gave more yield and quality fruits, had increased shelf life than the local varieties
7	Onion	Integrated pest and disease Management Practices in onion	Farmers have realized the importance of IPM practices in pest and disease management in Onion and protection of onion from rot disease
8	Tapioca	IPM Practices for mealy bug management in tapioca	Farmers have realized the importance of natural enemies viz., parasitoids in mealy bug management which provided static management and reduced pesticide spray
9	Banana	Integrated Crop Management Practices in banana	Farmers have realized the importance of Sucker treatment, foliar application of banana booster which improved overall growth of plants
10	Turmeric BSR 2	Integrated Crop Management Practices in Turmeric	F Highly satisfied with more yield and the performance of turmeric variety that gave more yield than the local varieties
11	Sugarcane	Popularisation of Mechanisation in Sugarcane	Farmers have realized the importance of farm machineries and implements used in sugarcane crop which helps in time and labour saving
12	Poultry	Oral pellet vaccination to control Ranikhet disease	Farmers reported that administration of oral pellet vaccine is easy and convenient for use. Vaccination is easy
13	Poultry	Popularisation of low cost incubator in backyard poultry farming	Farmers were highly satisfied with this incubator. Hatchability % increased.

14	Caprine	Improving the productivity of Goat	Farmers were highly satisfied with this technology. Birth weight of kid increased. Mortality % of kid reduced.
15	Silkworm	Integrated pest and disease management in Silkworm	Farmers reported that IPM practices resulted better protection of silkworm from pests and diseases and yielded good quantity and quality of silk
16	Caprine (Farm mechanization)	Popularisation of Chaff cutter in the intensive system of goat rearing	Farmers were highly satisfied with the usage of chaff cutter in terms of the time and cost saving

5.B.6.7 Farmers' reactions on specific technologies

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1	Redgram	Popularisation of seed production in Redgram	Farmers will adopt seed production techniques
2	Paddy	Popularisation of Paddy variety CORH3 through SRI	Satisfied with increase in yield
3	Paddy	Problem soil management	Farmers are aware of the problem soil management technology and growing TRY 1 variety in alkali soils. However, they expressed that the profit is less compared to fine rice, Ponni
4	Wheat	Integrated crop management	Wheat became very popular among farmers and they are convinced that it can be cultivated in plains during mid Nov to Jan. It requires less water and labor compared to paddy crop. Market price was more and highly profitable with a net return of Rs 57500.
5	Maize	Popularisation of Maize maxim to realize higher productivity	Farmers will continue booster spray for their crop
6	Tomato	Popularization of tomato hybrid COTH 2	Farmers learned the protray nursery raising and got 95 % establishment of seedlings in the main field. They also accepted the importance of staking of plants which helped in easy spraying, pest & disease management and harvesting operations that ultimately gave quality fruits
7	Onion	Integrated pest and disease Management Practices in onion	Farmers have realized the importance of IPM practices in pest and disease management in Onion and protection of onion from rot disease
8	Tapioca	IPM Practices for mealy bug management in tapioca	Farmers have realized the importance of natural enemies viz., parasitoids in mealy bug management which provided static management and reduced pesticide spray
9	Banana	Integrated Crop Management Practices in banana	Farmers learned the technique of foliar nutrition application and appreciated the overall performance of the plants
10	Turmeric	Integrated Crop Management Practices in Turmeric	Farmers appreciated the performance of turmeric variety that gave more yield than the local varieties
11	Sugarcane	Popularisation of Mechanisation in Sugarcane	Farmers learned the usage of farm implements in sugarcane
12	Poultry	Oral pellet vaccination to control Ranikhet disease	Vaccination is easy. Vaccine stored at room temperature.
13	Poultry	Popularisation of low cost incubator in backyard poultry farming	Hatchability % increased. Incubator used for hatching eggs of other poultry species

14	Caprine	Improving the productivity of Goat	Mortality % of kid reduced.
15	Silkworm	Integrated pest and disease management in Silkworm	Farmers reported that IPM practices resulted better protection of silkworm from pests and diseases and yielded good quantity and quality of silk
16	Caprine (Farm mechanization)	Popularisation of Chaff cutter in the intensive system of goat rearing	Farmers were highly satisfied with the performance of chaff cutter

5.B.6.8 Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	35	623	
2	Farmers Training	72	1952	-
3	Media coverage	15	Mass	-
4	Training for extension functionaries	25	142	-

PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Cereals																	
Maize	Popularisation of Maize maxim to realize higher productivity	COHM 5	12	5	75	51	62	48	29	25000	62000	37000	2.5	21000	48000	27000	2.2
Paddy	Popularization of paddy var CORH3 (2006) through System of Rice Intensification (SRI) cultivation	CORH3	8	3	100.9	80.6	90.75	70.00	29.6	24000	1115750	91750	4.82	23000	90000	67000	3.91
Total																	
Tomato	Popularization of tomato hybrid	COTH 2	6	2	850	620	735	510	44.11	153250	514500	361250	3.35	139700	357000	217300	2.55
Total																	

PART VII. TRAINING

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

Area of training	No. of	No. of Participants								
	Courses	General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management	7	205	132	337	23	12	35	228	144	372
Resource Conservation Technologies	3	58	25	83	12	8	20	60	33	93
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	2	63	25	88	16	9	25	79	34	113
Integrated Farming	12	282	172	454	62	41	103	344	213	557
Micro Irrigation/Irrigation	26	720	69	789	302	74	376	1022	143	1165
Seed production	24	462	218	680	135	28	163	597	246	843
Nursery management	15	296	165	461	86	46	132	382	211	593
Integrated Crop Management	5	108	52	160	35	17	52	143	69	212
Soil and Water Conservation	23	526	365	891	148	129	277	674	494	1168
Integrated Nutrient Management	2	48	19	67	8	0	8	56	27	83
Production of organic inputs	15	268	136	304	63	28	91	331	164	495
Others (pl.specify)	9	168	86	254	19	5	24	187	91	278
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	10	206	117	323	42	29	71	248	146	394
Off-season vegetables	16	476	265	741	123	86	209	599	351	950
Nursery raising	18	520	386	906	238	175	413	758	561	1319
Exotic vegetables	2	53	36	89	10	7	17	63	43	106
Export potential vegetables	12	342	225	567	96	76	172	438	301	739

Grading and standardization	15	432	228	660	134	89	223	566	317	883
Protective cultivation	2	46	16	62	11	2	13	57	18	75
Others (pl.specify)	5	62	10	72	15	9	24	77	19	96
b) Fruits										
Training and Pruning	8	248	116	364	65	32	97	313	148	461
Layout and Management of Orchards	15	462	245	707	115	95	210	577	340	917
Cultivation of Fruit	15	518	320	838	102	86	188	620	406	1026
Management of young plants/orchards	2	68	42	110	12	9	21	80	51	131
Rejuvenation of old orchards	11	376	240	616	108	92	200	484	332	816
Export potential fruits	5	125	42	167	45	15	60	167	57	224
Micro irrigation systems of orchards	3	68	19	87	9	3	12	77	22	99
Plant propagation techniques	7	55	18	73	12	7	19	67	25	92
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management	12	275	153	428	138	85	223	413	238	651
Management of potted plants	1	38	13	51	8	2	10	46	15	61
Export potential of ornamental plants	8	246	125	371	95	76	171	341	201	542
Propagation techniques of Ornamental Plants	8	235	124	359	75	32	107	310	156	466
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	2	42	26	68	19	12	31	61	38	99
Processing and value addition	5	210	86	296	28	8	36	238	94	332
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Production and Management technology	3	55	28	83	12	4	16	67	32	99
Processing and value addition	4	128	95	223	30	15	45	158	110	268
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0

f) Spices										
Production and Management technology	5	402	186	588	92	52	144	494	238	732
Processing and value addition	4	105	78	183	32	15	47	137	93	230
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management	3	123	52	175	92	53	145	215	105	320
Production and management technology	2	35	14	49	9	2	11	44	16	60
Post harvest technology and value addition	3	120	45	165	22	10	32	142	55	197
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Soil Health and Fertility Management										
Soil fertility management	14	320	145	465	125	32	157	445	177	622
Integrated water management	8	315	142	457	98	63	151	413	205	608
Integrated nutrient management	10	302	110	412	78	32	110	380	142	522
Production and use of organic inputs	2	35	12	47	8	2	10	43	14	57
Management of Problematic soils	5	98	46	144	55	28	83	153	74	227
Micro nutrient deficiency in crops	15	560	145	705	178	62	240	738	207	945
Nutrient use efficiency	4	102	48	150	18	7	25	120	55	175
Balanced use of fertilizers	8	281	92	373	60	15	75	341	107	448
Soil and water testing	17	325	115	440	85	20	105	410	135	545
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Livestock Production and Management										
Dairy Management	10	106	23	129	12	4	16	118	27	145
Poultry Management	7	126	96	222	36	12	48	162	108	270
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	12	312	118	430	67	42	109	379	160	539
Animal Disease Management	10	310	153	463	53	22	75	363	175	538

Feed and Fodder technology	15	392	142	534	115	87	202	507	229	736
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	6	126	42	168	26	17	43	152	59	211
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	4	25	96	121	15	36	51	40	132	172
Gender mainstreaming through SHGs	2	40	15	55	2	0	2	42	15	47
Storage loss minimization techniques	3	79	32	111	10	0	10	89	32	121
Value addition	2	256	96	352	35	16	51	291	112	403
Women empowerment	5	0	95	95	0	24	24	0	119	119
Location specific drudgery production	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Agril. Engineering										
Farm machinery and its maintenance	8	359	162	521	142	83	225	501	245	746
Installation and maintenance of micro irrigation systems	6	218	126	344	115	45	160	333	171	504
Use of Plastics in farming practices	6	138	76	214	35	12	47	137	72	209
Production of small tools and implements	4	125	85	210	68	38	106	193	123	316
Repair and maintenance of farm machinery and implements	9	268	142	410	128	73	201	396	215	611
Small scale processing and value addition	4	140	75	215	80	25	105	220	100	320
Post Harvest Technology	6	125	19	144	13	6	19	138	25	163

Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Plant Protection										
Integrated Pest Management	12	152	96	248	36	15	51	188	111	299
Integrated Disease Management	6	145	82	227	28	16	44	201	98	299
Bio-control of pests and diseases	4	63	18	81	15	6	21	78	24	102
Production of bio control agents and bio pesticides	5	135	42	177	38	24	62	173	66	239
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site										
Seed Production	5	116	35	151	85	31	116	201	66	267
Planting material production	8	128	62	190	53	26	79	181	88	269
Bio-agents production	3	68	35	103	16	9	25	84	44	128
Bio-pesticides production	1	25	5	30	3	1	4	28	6	31
Bio-fertilizer production	2	40	8	48	9	5	14	49	13	62

Vermi-compost production	3	66	28	94	49	25	74	115	53	168
Organic manures production	9	305	112	417	68	42	110	373	154	527
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	2	41	16	57	12	6	18	53	22	75
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	10	225	108	333	96	35	131			
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom production	7	205	92	297	85	42	127	290	134	424
Apiculture	3	72	27	99	28	12	40	100	39	139
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	2	46	15	61	5	2	7	51	17	68
Formation and Management of SHGs	3	0	60	60	0	10	10	0	70	70
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	5	76	21	97	14	8	22	90	29	119
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (Pl. specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**640**	**16800**	**8137**	**24837**	**4958**	**2701**	**7649**	**21740**	**10830**	**32550**

7.B.Farmers' Training including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management	5	115	105	220	25	12	37	140	117	257
Resource Conservation Technologies	1	25	5	30	2	1	3	27	6	33
Cropping Systems	1	32	12	44	2	5	7	34	17	51
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	2	53	21	74	9	5	14	62	26	88
Micro Irrigation/Irrigation	21	565	153	718	102	35	137	667	188	855
Seed production	5	75	18	93	8	3	11	83	21	104
Nursery management	3	65	23	88	12	9	21	77	32	109
Integrated Crop Management	15	265	136	401	52	12	64	317	148	465
Soil and Water Conservation	2	208	82	290	35	10	45	243	92	335
Integrated Nutrient Management	5	135	96	231	45	15	60	180	111	291
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (IPM)	10	225	152	377	65	21	86	290	173	463
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	2	52	25	77	5	3	8	57	28	85
Off-season vegetables	3	53	22	75	12	5	17	65	27	92
Nursery raising	3	75	22	97	39	12	51	114	34	148
Exotic vegetables	2	45	26	71	12	3	15	57	29	86
Export potential vegetables	4	125	35	160	21	9	30	146	44	190
Grading and standardization	2	52	13	65	15	8	23	67	21	88
Protective cultivation	2	40	12	52	5	2	7	45	14	59

Others (IPM in vegetables)	3	70	15	85	18	3	21	88	18	106
b) Fruits										
Training and Pruning	5	96	48	144	25	15	40	121	63	184
Layout and Management of Orchards	5	86	45	131	25	9	34	111	54	165
Cultivation of Fruit	6	183	125	308	45	22	67	228	147	375
Management of young plants/orchards	3	45	12	57	5	2	7	50	14	64
Rejuvenation of old orchards	3	75	40	115	15	10	25	90	50	140
Export potential fruits	4	59	25	84	15	12	27	74	37	111
Micro irrigation systems of orchards	3	58	25	83	12	8	20	70	33	103
Plant propagation techniques	5	108	53	161	15	8	23	123	61	184
Others (IPM in fruits)	5	145	52	197	25	12	37	170	64	234
c) Ornamental Plants										
Nursery Management	5	99	48	147	35	22	57	134	70	204
Management of potted plants	1	22	5	27	5	2	7	27	7	34
Export potential of ornamental plants	2	51	12	63	8	2	10	59	14	73
Propagation techniques of Ornamental Plants	4	82	30	112	36	20	56	118	50	168
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	2	62	18	80	20	8	28	82	26	108
Processing and value addition	1	25	12	37	5	3	8	30	15	45
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops				0			0	0	0	0
Production and Management technology	2	85	42	127	35	18	53	120	60	180
Processing and value addition	1	25	12	37	5	1	6	30	13	43
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
f) Spices				0			0	0	0	0
Production and Management technology	3	98	25	123	25	12	37	123	37	160

Processing and value addition	2	68	15	83	12	8	20	80	23	103
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants				0			0	0	0	0
Nursery management	5	105	75	180	56	25	81	161	100	261
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Soil Health and Fertility Management										
Soil fertility management	8	305	65	370	92	56	148	397	121	518
Integrated water management	3	105	36	141	20	12	32	125	48	173
Integrated nutrient management	6	165	102	267	68	41	109	233	143	376
Production and use of organic inputs	15	365	125	490	115	65	180	480	190	670
Management of Problematic soils	2	26	12	38	5	3	8	31	15	46
Micro nutrient deficiency in crops	5	263	78	341	98	25	123	361	103	464
Nutrient use efficiency	2	95	18	113	30	8	38	125	26	151
Balanced use of fertilizers	3	105	20	125	26	5	31	131	25	156
Soil and water testing	8	265	98	363	75	25	100	340	123	463
Others (Foliar nutrition to crops)	6	253	98	351	78	25	103	331	123	454
Livestock Production and Management										
Dairy Management	4	85	28	113	15	8	23	100	36	136
Poultry Management	8	36	12	48	25	15	40	61	27	88
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	6	75	25	100	22	13	35	97	38	135
Animal Disease Management	10	125	35	160	28	16	44	153	51	204
Feed and Fodder technology	10	125	32	157	29	18	47	154	50	204
Production of quality animal products	0	0	0	0	0	0	0	0	0	0

Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	2	32	12	44	5	2	7	37	14	51
Gender mainstreaming through SHGs	4	12	65	77	2	15	17	14	80	94
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0
Value addition	3	0	45	45	0	15	15	0	60	60
Women empowerment	4	48	13	61	10	2	12	58	15	73
Location specific drudgery production	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Agril. Engineering										
Farm machinery and its maintenance	10	398	154	552	98	35	133	496	189	685
Installation and maintenance of micro irrigation systems	7	168	85	253	48	18	66	216	103	319
Use of Plastics in farming practices	5	125	56	181	25	10	35	150	66	216
Production of small tools and implements	6	145	103	248	52	35	87	197	138	335
Repair and maintenance of farm machinery and implements	5	45	12	57	9	5	14	54	17	71
Small scale processing and value addition	3	225	105	330	45	18	63	270	123	393
Post Harvest Technology	7	85	42	127	28	19	47	113	61	174
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Plant Protection										

Integrated Pest Management	15	245	69	314	62	38	100	307	107	414
Integrated Disease Management	8	165	42	207	53	25	78	218	67	285
Bio-control of pests and diseases	10	201	89	290	25	18	43	226	107	333
Production of bio control agents and bio pesticides	2	52	12	64	5	3	8	57	15	72
Others (Onion IPM)	2	45	22	67	18	10	28	63	32	95
Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site										
Seed Production	19	358	165	523	25	25	50	383	190	573
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	2	52	14	66	12	8	20	64	22	86
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	10	235	48	283	87	35	122	322	83	405
Organic manures production	0	0	0	0	0	0	0	0	0	0

Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	5	45	25	70	15	12	27	60	37	97
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom production	5	65	12	77	21	16	37	86	28	114
Apiculture	4	65	16	81	19	5	24	84	21	105
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Capacity Building and Group Dynamics										
Leadership development	5	45	23	68	16	12	28	61	35	96
Group dynamics	6	96	35	131	25	14	39	121	49	170
Formation and Management of SHGs	5	12	46	58	5	25	30	17	71	88
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	8	105	98	203	25	19	44	130	117	247
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (Pl. specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**259**	**6698**	**2462**	**9160**	**1802**	**756**	**2558**	**8490**	**3218**	**11708**

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

Area of training	No. of	No. of Participants								
	Courses	General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	5	168	86	254	68	56	124	236	142	378
Training and pruning of orchards	5	105	62	167	46	15	61	151	77	228
Protected cultivation of vegetable crops	4	82	56	138	48	40	88	130	96	226
Commercial fruit production	5	78	35	113	25	19	44	103	54	157
Integrated farming	2	48	25	73	15	9	24	63	34	97
Seed production	6	168	105	273	68	35	103	236	140	376
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Planting material production	2	48	15	63	5	3	8	53	18	71
Vermi-culture	6	98	25	123	25	21	46	123	46	169
Mushroom Production	10	168	69	237	62	28	90	230	97	327
Bee-keeping	2	45	12	57	25	8	33	70	20	90
Sericulture	2	96	61	157	49	32	81	145	93	238
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Value addition	5	198	68	266	45	22	67	243	90	333
Small scale processing	2	52	12	64	15	8	23	67	20	87
Post Harvest Technology	3	106	52	158	53	38	91	159	90	249
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	6	182	60	242	25	15	40	207	75	282
Sheep and goat rearing	8	215	72	287	39	25	64	254	97	351
Quail farming	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0

Poultry production	5	85	42	127	22	9	31	107	51	158
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**54**	**1377**	**703**	**2080**	**523**	**342**	**867**	**1940**	**1045**	**2947**

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

Area of training	**No. of**	**No. of Participants**								
	Courses	**General**			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Nursery Management of Horticulture crops	6	185	115	300	68	35	103	253	150	403
Training and pruning of orchards	4	125	48	173	56	35	91	181	83	264
Protected cultivation of vegetable crops	5	158	78	236	65	42	107	223	120	343
Commercial fruit production	5	156	102	258	68	49	117	224	151	375
Integrated farming	0	0	0	0	0	0	0	0	0	0
Seed production	10	168	53	221	25	10	35	193	63	256
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	5	95	45	140	22	12	34	117	57	174
Mushroom Production	4	123	65	188	82	48	130	205	113	318
Bee-keeping	3	65	19	84	15	6	21	80	25	105
Sericulture	4	186	95	281	28	12	40	214	107	321

Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Value addition	3	168	65	233	15	10	25	183	75	258
Small scale processing	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	8	98	52	150	46	29	75	144	81	225
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	5	95	35	130	29	15	44	124	50	174
Sheep and goat rearing	6	152	82	234	25	9	34	177	91	268
Quail farming	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	2	36	12	48	5	0	5	41	12	53
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**43**	**1139**	**585**	**1724**	**570**	**346**	**916**	**1709**	**931**	**2640**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	15	315	152	467	82	45	127	397	197	594
Integrated Pest Management	16	389	268	657	156	98	254	545	366	911
Integrated Nutrient management	18	298	146	444	95	35	130	393	181	574
Rejuvenation of old orchards	5	142	52	194	28	15	43	170	67	237
Protected cultivation technology	4	76	25	101	15	12	27	91	37	128
Production and use of organic inputs	6	98	42	140	32	22	54	130	64	194
Care and maintenance of farm machinery and implements	6	125	44	169	26	18	44	151	62	213
Gender mainstreaming through SHGs	3	52	15	67	5	3	8	57	18	75
Formation and Management of SHGs	2	65	25	90	12	8	20	77	33	110
Women and Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	10	186	25	211	25	12	37	211	37	248
Information networking among farmers	20	265	168	433	69	52	121	334	220	554
Capacity building for ICT application	15	215	125	340	95	36	131	310	161	471
Management in farm animals	6	128	98	226	25	16	41	153	114	267
Livestock feed and fodder production	5	165	105	270	45	18	63	210	123	333
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (Silpaulin Vermi bag Production	2	48	1	49	3	0	3	51	1	52
Total	**141**	**2247**	**1290**	3537	**747**	**397**	1144	2994	1687	4681

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	10	265	96	361	65	26	91	330	122	452
Integrated Pest Management	8	325	165	490	94	52	146	419	217	636
Integrated Nutrient management	5	98	52	150	25	15	40	123	67	190
Rejuvenation of old orchards	8	195	65	260	85	36	121	280	101	381
Protected cultivation technology	4	89	43	132	66	23	89	155	66	221
Production and use of organic inputs	5	125	58	183	56	21	77	181	79	260
Care and maintenance of farm machinery and implements	5	69	35	104	26	19	45	95	54	149
Gender mainstreaming through SHGs	3	46	26	72	15	12	27	61	38	99
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	6	98	25	123	29	15	44	127	40	167
Information networking among farmers	8	135	65	200	38	25	63	173	90	263
Capacity building for ICT application	6	236	50	286	35	15	50	271	65	336
Management in farm animals	5	165	65	230	25	8	33	190	73	263
Livestock feed and fodder production	8	125	53	178	29	15	44	154	68	222
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
Total	**44**	**1295**	**493**	1788	**508**	**211**	719	1803	704	2507

7.G. Sponsored training programmes

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**	**47**	**1014**	**487**	**1501**	**270**	**192**	**462**	**1284**	**679**	**1963**
1.a	Increasing production and productivity of crops	26	562	315	877	165	96	261	727	411	1138
1.b	Commercial production of vegetables	21	452	172	624	105	96	201	557	268	825
2	**Production and value addition**	**23**	**583**	**212**	**795**	**110**	**42**	**152**	**693**	**254**	**947**
102	Fruit Plants	15	312	125	437	65	25	90	377	150	527
2.b	Ornamental plants	6	205	75	280	35	15	50	240	90	330
2.c	Spices crops	2	66	12	78	10	2	12	76	14	90
3	**Soil health and fertility management**	**6**	**135**	**65**	**200**	**35**	**12**	**47**	**170**	**77**	**247**
4	**Production of Inputs at site**	**5**	**135**	**52**	**187**	**62**	**25**	**87**	**197**	**77**	**274**
5	**Methods of protective cultivation**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6	**Others (Orgonic Farming)**	**2**	**53**	**25**	**78**	**10**	**5**	**15**	**63**	**30**	**93**
7	**Post harvest technology and value addition**	**18**	**228**	**152**	**380**	**75**	**120**	**195**	**303**	**272**	**575**
7.a	Processing and value addition	18	228	152	380	75	120	195	303	272	575
7.b	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
8	**Farm machinery**	**6**	**95**	**12**	**107**	**49**	**0**	**49**	**144**	**12**	**156**
8.a	Farm machinery, tools and implements	6	95	12	107	49	0	49	144	12	156
8.b	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
9	**Livestock and fisheries**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
10	**Livestock production and management**	**11**	**121**	**57**	**178**	**20**	**11**	**31**	**141**	**68**	**209**
10.a	Animal Nutrition Management	5	65	25	90	0	0	0	65	25	90
10.b	Animal Disease Management	6	56	32	88	20	11	31	76	43	119
10.c	Fisheries Nutrition	0	0	0	0	0	0	0	0	0	0
10.d	Fisheries Management	0	0	0	0	0	0	0	0	0	0

10.e	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
11	**Home Science**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11.a	Household nutritional security	0	0	0	0	0	0	0	0	0	0
11.b	Economic empowerment of women		0	0	0	0	0	0	0	0	0
11.c	Drudgery reduction of women	0	0	0	0	0	0	0	0	0	0
11.d	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
12	**Agricultural Extension**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12.a	Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0	0
12.b	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
	Total	**106**	**2816**	**1221**	**4037**	**918**	**625**	**1543**	**3734**	**1846**	**5580**

Details of sponsoring agencies involved

1. **World Vision of India**
2. **NHM- National Horticulture Mission**
3. **NADP – Precision farming**
4. **PFDC- Precision Farming Development Agency, TNAU, Coimbatore**
5. **Tamil Nadu Starch and Sago producers Association, Attur**
6. **Thiayagaraja Polytechnic College, Salem**

7, TN-IAMWARM

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

S.No	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**	**15**	**173**	**61**	**234**	**47**	**26**	**73**	**220**	**87**	**307**
1.a.	Commercial floriculture	0	0	0	0	0	0	0	0	0	0
1.b.	Commercial fruit production	5	56	15	71	9	5	14	65	20	85
1.c.	Commercial vegetable production	6	65	25	90	22	16	38	87	41	128
1.d.	Integrated crop management	0	0	0	0	0	0	0	0	0	0
1.e	Organic farming	4	52	21	73	16	5	21	68	26	94
1.f.	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
2	**Post harvest technology and value addition**	**5**	**73**	**35**	**108**	**25**	**16**	**41**	**98**	**51**	**149**
2.a.	Value addition	5	73	35	108	0	0	0	73	35	108
2.b.	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
3	**Livestock and fisheries**	**7**	**86**	**17**	**103**	**16**	**3**	**19**	**102**	**20**	**122**
3.a.	Dairy farming	3	36	3	39	6	1	7	42	4	46
3.b.	Composite fish culture	0	0	0	0	0	0	0	0	0	0
3.c.	Sheep and goat rearing	3	32	12	44	8	2	10	40	14	54
3.d.	Piggery	0	0	0	0	0	0	0	0	0	0
3.e.	Poultry farming	1	18	2	20	2	0	2	20	2	22
3.f.	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
4	**Income generation activities**	**22**	**174**	**64**	**238**	**53**	**15**	**68**	**227**	**79**	**306**
4.a.	Vermi-composting	2	32	15	47	12	5	17	44	20	64
4.b	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	4	32	8	40	9	2	11	41	10	51
4.c.	Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
4.d	Rural Crafts	0	0	0	0	0	0	0	0	0	0

4.e.	Seed production	2	22	7	29	5	1	6	27	8	35
4.f.	Sericulture	0	0	0	0	0	0	0	0	0	0
4.g	Mushroom cultivation	7	46	22	68	12	3	15	58	25	83
4.h	Nursery, grafting etc.	0	0	0	0	0	0	0	0	0	0
4.i.	Tailoring, stitching, embroidery, dying etc.	0	0	0	0	0	0	0	0	0	0
4.j.	Agril. para-workers, para-vet training	0	0	0	0	0	0	0	0	0	0
4.k	Others (Honey bee Keeping)	7	42	12	54	15	4	19	57	16	73
5	**Agricultural Extension**	**5**	**96**	**26**	**122**	**15**	**12**	**27**	**111**	**38**	**149**
5.a.	Capacity building and group dynamics	5	96	26	122	15	12	27	111	38	149
5.b	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
	Grand Total	**33**	**268**	**87**	**355**	**71**	**18**	**89**	**339**	**105**	**444**

VIII – EXTENSION ACTIVITIES

Extension Programmes (including activities of FLD programmes)

Nature of Extension Programme	No. of Programme	No. of Participants (General)			No. of Participants SC / ST			No. of Extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	32	1150	356	1506	315	129	444	165	56	221
Kisan Mela (Technology week)	1	578	176	754	142	38	180	58	17	75
Kisan Ghosthi	0	0	0	0	0	0	0	0	0	0
Exhibition	42	2058	765	2823	532	395	927	232	82	314
Film Show	14	465	125	590	175	69	244	129	36	165
Method Demonstrations	145	1468	595	2063	415	196	611	352	115	467
Farmers Seminar	16	765	393	1158	245	95	340	96	42	138
Workshop	25	425	136	561	162	68	230	274	95	369
Group meetings	62	1750	362	2112	565	192	757	352	87	439
Lectures delivered as resource persons	212	1252	547	1799	475	198	685	425	128	553
Newspaper coverage	45	**Mass Coverage**								
Radio talks	3									
TV talks	1									
Popular articles	28									
Extension Literature	13									
Advisory Services	1955	1025	356	1381	366	98	464	428	214	642
Scientific visit to farmers field	422	2864	695	3559	588	362	950	254	116	370
Farmers visit to KVK	4686	2364	1065	3429	268	164	432	196	132	328
Diagnostic visits	496	1086	438	1524	295	165	460	113	98	211
Exposure visits	48	458	158	616	245	52	297	0	0	0
Ex-trainees Sammelan	0	0	0	0	0	0	0	0	0	0
Soil health Camp	26	542	218	760	312	96	408	210	125	335
Animal Health Camp	0	0	0	0	0	0	0	0	0	0
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0
Soil test campaigns	6	165	25	190	10	8	18	5	3	8
Farm Science Club Conveners meet	8	265	198	463	65	26	91	0	0	0
Self Help Group Conveners meetings	0	0	0	0	0	0	0	0	0	0
Mahila Mandals Conveners meetings	6	0	205	205	0	82	82	0	0	0
Celebration important days	9	**Mass Coverage**								
Any Other (Specify)	0	0	0	0	0	0	0	0	0	
Total	**8301**	**12961**	**4796**	**17757**	**3596**	**1606**	**5214**	**2353**	**1040**	**4635**

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)	Paddy	TRY 1		4.8	9120	20
Oilseeds		TRY 3		2.7	5130	12
Pulses		ADT 43		3.5	7700	15
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds	Fodder sorghum	COFS 29		0.20	4000	20
	Hedge Lucerne	-	-	0.1	Free of cost	20
Fiber crops						
Forest Species						
Others (specify)						
Total						

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						
Vegetable seedlings						
	Tomato	-	COTH 2	50000	1500	3
Fruits	Mango	Salem Banglora	-	712	17800	16
		Alphonso	-	593	14825	22
		Imampasand	-	742	18550	28
	Sapota	PKM 1 & CO3	-	74	2220	27
	Amla	NA 7	-	280	7000	35
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Fodder crop saplings	Cumbu Napier		CO4	20000	8000	10
	Guinea grass	CoG3		4000	1600	5
Forest Species						
Others(specify)						
Total				76401	71495	146

9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg/ Nos.	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents	Papaya mealy bug parasitoids *Acerophagus papayae*	32500 nos	Given to the farmers at free of cost	156
Others (specify)				
	Vermicompost	600 kg	2400	20
	Microbial consortia	1000 litres	free	30
Total				**206**

9.D. Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Desi chicken	Giriraja	250	5000	20
Japanese Quail	Namakkal 1 quail	500	2000	10
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total		**750**	**7000**	**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 : 29.05.2005
Periodicity : Quarterly
No of copies distributed : 1000 copies / time

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers	Adoption level of Water management Practices in Canal Command Areas published in Journal of Extension Education. 21 (3)	S. Manickam P. Balasubramani and R. Vijayaraghavan	1
	Consequences of adoption of Micro- irrigation systems in Canal Command Areas published in Journal of Extension Education. 21 (1)	S. Manickam P. Kalaiselvan K. Subramaniyan and S. R. Venkatachalam	1
	Role of herbicide in Castor based intercropping system published in Journal of Phytological Research. 22 (2)	S. Manickam, S. R. Venkatachalam, S. Venkatesan, V. Palanisamy and K. Thirukumaran	1
Technical reports	Action plan 2010-11	KVK, Sandhiyur	1
	FLD Cotton Action Plan 2010-11	KVK ,Sandhiyur	1
	Report on success stories	KVK ,Sandhiyur	1
	IAMWARM –World Bank report	KVK, Sandhiyur	1
	IAMWARM –Review report	KVK ,Sandhiyur	1
	IAMWARM –SRI and Precision farming documentation report	KVK, Sandhiyur	1
News letters	Jan-October 2010 Jan 2011	Dr. S. Manickam Dr. K. Sara Parwin Banu Dr. R. Jegathambal Dr. B. Geetha Dr. M.A. Vennila Dr. P. S. Kavitha Dr. P. Chitra	1000 1000
Technical bulletins	Improved Turmeric production technologies	Dr. P. S. Kavitha, Dr. M A. Vennila Dr. R. Jegathambal Dr. S. Manickam Dr. B. Geetha	200

Popular articles	Management of scale insects and whiteflies in Tapioca **Naam Uzhavar**, March 2011: 26-28	Dr. B.Geetha Dr.P.S.Kavitha Dr. S. Manickam	1
	Diseases management in Sunflower **Naam Uzhavar**, February 2011: 49-50	Dr. B.Geetha Dr. S. Manickam	1
	Onion rotting **Naam Uzhavar**, January 2011: 39-40	Dr. B.Geetha Dr. S. Manickam	1
	Pests and diseases of Turmeric **Uzhavarin Valarum Velanmai,** 2(6) Dec,2010, 44 -47	Dr. B.Geetha Dr. S. Manickam	1
	Technology week programme **Uzhavarin Valarum Velanmai**, March 2010	Dr. S. Manickam Dr. M.A. Vennila Dr. D. Selvi	1
	Insect Pests and diseases of Turmeric **Naam Uzhavar**, December 2010: 26-28	Dr. B.Geetha Dr. S. Manickam	1
	Pests management in Sunflower **Naam Uzhavar**, October 2010: 33-37	Dr. B.Geetha Dr. S. Manickam	1
	CORH3 Rice seed production **GNaam Uzhavar** 7-7 May 2010.Pp 15	Dr. R. Jegathambal, Dr. D. Selvi Dr. S. Manickam	1
	Yield loss in Turmeric due to pests and diseases and management practices **Uzhavar oosai,** August 2010 7 (2) 30-33	Dr. B.Geetha Dr. S. Manickam	1
	Desi chicken breeds and rearing **Dhinamalar- Vivashaya Malar**-January-2011	Dr.P. Chitra Dr. S. Manickam	1
	Disease management in Desi chicken **Dhinamalar- Vivashaya Malar**-January-2011	Dr.P. Chitra Dr. S. Manickam	1
Extension literature			
Folders	Scientific Goat rearing	Dr.P. Chitra Dr. S. Manickam	250
	Disease management in small ruminants	Dr.P. Chitra Dr. S. Manickam	250
BOOKS (ISBN)	Employment opportunities for unemployed Rural youth	Dr.S.Manickam Dr.R.Jegathambal Dr.B.Geetha Dr.P.S.Kavitha Dr. M.A.Vennila Dr. S. Sara Parvin banu, Dr.P. Chitra	500
	Sugarcane Production Technologies	Dr.S.Manickam Dr.R.Jegathambal, Dr.B.Geetha, Dr.P.S.Kavitha, Dr. M.A.Vennila Dr. S. Sara Parvin banu Dr.P. Chitra	500
	Pulses Production Technology	Dr.R.Jegathambal	100

		Dr.D.Selvi Dr.B.Geetha Dr.S.Manickam Dr.L.Jeeva Lothi Dr.B.Kalaiselvan	
	Seed Production technologies for Oil seeds	Dr.R.Jegathambal Dr.B.Geetha Dr.D.Selvi Dr.P.P.Murugan Dr.S.Manickam Dr.L.Jeeva Lothi	1850
	Seed Production technologies for Maize	Dr.R.Jegathambal Dr.B.Geetha Dr.D.Selvi Dr.S.Manickam Dr.L.Jeeva Lothi	1200
	Seed Production technologies in Pulses	Dr.R.Jegathambal Dr.B.Geetha Dr.D.Selvi Dr.S.Manickam Dr.L.Jeeva Lothi	3700
	Paddy Seed Production Technologies	Dr.R.Jegathambal Dr.B.Geetha Dr.S.Manickam Dr.V.Rajendran Dr.L.Jeeva Lothi	1700
	Tapioca Production Technologies	Dr.B.Geetha Dr.S.Manickam Dr.R.Jegathambal Dr.D.Selvi Dr.P.P.Murugan Dr.L.Jeeva Lothi Dr.B.Kalaiselvan	500
	Paddy production Technologies	Dr.R.Jegathambal Dr.B.Geetha Dr.S.Manickam Dr.V.Rajendran Dr.L.Jeeva Lothi Dr.B.Kalaiselvan	100
	Management Technologies for Pulses	Dr.R.Jegathambal Dr.D.Selvi Dr.B.Geetha Dr.S.Manickam Dr.L.Jeeva Lothi Dr.B.Kalaiselvan	100
Booklets	Mushroom for self employment	Dr.B.Geetha	250

				Dr.S.Manickam	
	Mushroom production technologies – Self employment opportunities			Dr.B.Geetha Dr.S.Manickam Dr.M.A.Vennila	500
	Mushroom production and preservation			Dr.B.Geetha Dr.S.Manickam Dr.M.A.Vennila	500
	Production technologies of *Gloriosa superba*			Dr. P. S. Kavitha, Dr. M A. Vennila Dr. S. Manickam	250
	Tomato cultivation techniques			Dr. P. S. Kavitha, Dr. M A. Vennila Dr. R. Jegathambal Dr. S. Manickam	200
Others- Newspaper Message					
Message on creating Awareness among farmers					
	21.3.2011	SWA Strikes back, causing worry among Sugarcane farmers , Page-3, Tamil Nadu	The Hindu	KVK ,Sandhiyur	Mass
	26.2.2011	Tapioca farmers fear heavy loss as Red Spider Mite attacks plants near Namakkal, Page -6, Tamil Nadu	The Hindu	KVK ,Sandhiyur	Mass
	17.1.2010	Field demonstration on beneficial insects for Cotton Farmers	The Hindu	KVK ,Sandhiyur	Mass
	20.2.2011	Wheat production high in Salem district under experimental cultivation	Kalaikathir	KVK ,Sandhiyur	Mass
	21.2.2011	Field day on Wheat cultivation at Nangavalli	Dinakaran	KVK ,Sandhiyur	Mass
	18.2.1011	High returns for Value added products said by the Vice- Chancellor, TNAU, Coimbatore	Dinakaran	KVK ,Sandhiyur	Mass
	1.2.2010	Technology week	TNAU Newsletter	KVK ,Sandhiyur	Mass
	28.1.2010	News on Technology week held at KVK, Sandhiyur	Dinakaran, Daily thanthi& Kalaikathir	KVK ,Sandhiyur	Mass
	27.1.2011	Papaya mealybug parasitoid released to farmers filed by the Vice- Chancellor,	Dailythanthi	KVK ,Sandhiyur	Mass

		TNAU, Coimbatore			
	27.1.2010	News on Technology week	Daily thanthi	KVK ,Sandhiyur	Mass
	26.1.2010	Technology week will be held at KVK, Sandhiyur	Kalaikathir, Dinakaran	KVK ,Sandhiyur	Mass
	25.1.2010	Technology week to showcase modern farming methods	The Hindu	KVK ,Sandhiyur	Mass
	23.1.2010	Information on Technology week	Dinakaran, Tamil Murasu	KVK ,Sandhiyur	Mass
	22.1.2010	Technology week at KVK, Sandhiyur	Kalaikathir	KVK ,Sandhiyur	Mass
	14.11.2010	Field visit by scientists of KVK, Sandhiyur for Onion disease management	Kalaikathir	KVK ,Sandhiyur	Mass
	23.7.2010	Wheat variety suitable for Salem district	Dinakaran	KVK ,Sandhiyur	Mass
	21.7.2010	High yield obtained in Wheat cultivation in Salem and Namakkal district	Dinakaran	KVK ,Sandhiyur	Mass
	18.4.2010	Export zones for Agricultural commodities	Dinakaran	KVK ,Sandhiyur	Mass
Message on Technology Dissemination					
	24.2.2011	Parasitoids for Papaya mealybug - given at free cost	Dinakaran	KVK ,Sandhiyur	Mass
	27.3.2011	Mealybug management through parasitoid in Agricultural input distribution meeting by SIMA Cotton	Kalaikathir	KVK ,Sandhiyur	Mass
	6.7.2010	Foliar nutrition for Blackgram	Kalaikathir	KVK ,Sandhiyur	Mass
	3.7.2010	Quality rhizomes for planting in Turmeric	Kalaikathir	KVK ,Sandhiyur	Mass
	2.7.2010	Control measures for Mealybug in Cotton	Dinakaran	KVK ,Sandhiyur	Mass
	5.6.2010	High yielding Hybrid Castor	Kalaikathir	KVK ,Sandhiyur	Mass
	12.5.2010	CORH1 Hybrid Rice seed production by farmer from Nalikkalpatty	Kalaikathir	KVK ,Sandhiyur	Mass
	26.4.2010	Control measures for	Dinakaran	KVK ,Sandhiyur	Mass

		Mealybug in summer crops			
	18.4.2010	Ways for storing the Food grains	Dinakaran	KVK ,Sandhiyur	Mass
	12.4.2010	Subsidy for Swetha sub basin farmers under IAMWARM scheme	Kalaikathir	KVK ,Sandhiyur	Mass
	12.2.2010	Cotton pest management in SIMA Cotton meeting	Dinamani	KVK ,Sandhiyur	Mass
Message on Training/ Demonstration					
	29.10.2010	Training on Improved production technologies in Turmeric	Dinakaran	KVK ,Sandhiyur	Mass
	10.11.2010	Training on Dairy cattle management	Dinakaran	KVK ,Sandhiyur	Mass
	11.11.2010	Training on Precision farming through Video Conferencing	Kalaikathir	KVK ,Sandhiyur	Mass
	13.6.2010	Training on Mushroom Production	Dinakaran	KVK ,Sandhiyur	Mass
	12.5.2010	Training on Improved production technologies of Turmeric	Kalaikathir	KVK ,Sandhiyur	Mass
	2.3.2011	Training on Slater floor goat rearing at KVK, Sandhiyur	Dinamalar	KVK ,Sandhiyur	Mass
Message on Sale of Seeds and Planting Materials					
	27.5.2010	Trichy 1Paddy seeds for sale at KVK, Sandhiyur	Dinakaran	KVK ,Sandhiyur	Mass
	14.4.2010	Hybrid seeds and seedlings available for sale at KVK, Sandhiyur	Dinakaran	KVK ,Sandhiyur	Mass
	19.3.2011	BSR 2 Turmeric is available for sale at KVK, Sandhiyur	Kalaikathir	KVK ,Sandhiyur	Mass
Message on Market Information					
	27.6.2010	Market information to farmers through SMS	Kalaikathir	KVK ,Sandhiyur	Mass
	27.6.2010	Market information to farmers through SMS	Dinakaran	KVK ,Sandhiyur	Mass

	26.6.2010	Market information to farmers through SMS	Daily thanthi	KVK ,Sandhiyur	Mass
	25.6.2010	Market information through SMS to farmers at free of cost by KVK, Sandhiyur	Dinakaran	KVK ,Sandhiyur	Mass
TOTAL					13670 and Mass coverage through Newspaper Message

10.B. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
1.	**DVD**	**KVK activities and Demo units**	**10**
2.	**DVD**	**TN IAMWARM swedhanathi sub basin SRI success stories**	**50**

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).

1. HYBRID RICE SEED PRODUCTION

Background

The short duration hybrid CORH3 which is having good cooking quality was released by TNAU during 1996. In order to popularize and promote hybrid rice seed production among farmers of Salem district, the KVK, Sandhiyur conducted training programme on CORH3 hybrid rice seed production. After attending the training programme the farmers are motivated to adopt the hybrid rice seed production in their farms.

KVKs Contribution:

The hybird rice CORH 3 seed production programme was implemented in the farmers field of Thiru. Dharmalingam at Nallikalpatty Village of Salem District in 1 acre of land.

Economic gains

The farmer harvested 370 kg of hybrid seeds and 1110kg of male seed with total income of Rs.58750 /ac , net come of Rs.45688 and BC ratio of 4.5.

Substitution or replacement of commodities

Previously the farmer was cultivating oilseed seed production only now after attending the training on hybrid rice seed production the farmer was motivated and adopted the hybrid rice seed production technologies.

Linkage with technology / development organizations

Linkages were developed between the farmers with TNAU, department of Agriculture, Salem district

Publications / papers printed

News paper Message has been published in Kalaikathir dt 12.5.10

Article has been published in Naam Ulavar

Article has been prepared and sent for publication to Ulavarin Valarum Velanmai.

Others

As a result of this programme the farmer income has been increased when compare to cultivation of other crops. The farmer previously did seed production of oilseed crops. After the intervention of our KVK he shifted to hybrid rice seed production.

He achieved the highest yield of 370 kg/ ac of female seed and 1110 kg/ ac of male seeds. The farmer was benefited in terms of increase in yield and income out of the KVK intervention.

The farmer become more innovative farmer.

The measurable results are increase in yield level and income of the farmer his knowledge and skill has been improved as a result of KVK intervention.

Achievement Motivation behavior, decision making behavior has been improved. His economic, social and environmental conditions were improved.

The productivity and income was increased with maximum utilization of all resources. Employment opportunities were generated because of the adoption of hybrid rice seed production. Now the other farmers also adopted the technology.

2. SEED VILLAGE

Background

Seed is an important determinant of agricultural production and the efficacy of other agricultural inputs like labour, fertilizers depends on the quality of seed. Hence, the availability of the right seed material is very crucial. In Salem district rice is grown in an area of 37328 ha and the approximate seed requirement is around 2240 t. In order to achieve higher seed requirement, a major effort is required to cover more area under seed production. The production and supply of quality seeds and enhancing the seed replacement rates of various crops are the important issues in seed sector. Seed replacement rate is the net area sown with quality seeds among the cultivated area. In paddy, most of the farmers are using their own seeds. The seed replacement rate is only 19.6% for paddy. Hence, training on seed production to the farmers is needed to increase the seed replacement rate by the way of producing high quality seeds.

Intervention of Krishi Vigyan Kendra, Salem

The farmers have purchased the seeds from private seed companies, government outlets and also used their own farm saved seeds. The availability of good quality seed is the major problem among the farmers. KVK scientists explained the uses and production of quality seeds. But, the resource poor farmers were unable to produce the seeds of their own due to lack of technical know how. Then the Krishi Vigyan Kendra intervened and trained the farmers about the seed production technologies such as land selection, sources of seed, isolation distance, rogueing, foliar nutrition, harvesting and post harvest handling of seeds in three stages in a cluster approach under seed village scheme. In this programme the farmers were also provided with quality seeds in 50% subsidy.

Success

If we consider the success story of trained farmers under seed village programme the farmers at Ayothiapatinam block of D.Perumapalayam and Sukkampatti village are of the progressive farmers and shown impressive progress both as an early adopter and entrepreneur.

Impact

The paddy is grown in an area of 65.8 and 42.3 ha in D.Perumapalayam and Sukkampatti villages respectively.

They planned to start seed production in rice as advised by scientists of Krishi Vigyan Kendra, Sandhiyur. Previously they had undergone the training on the direct seeding techniques with drum seeder and SRI techniques in rice during 2005.

They practiced these techniques in seed production and found that this techniques required low seed rate, water and labour requirement. Based on this experience, they extended the area under seed production in paddy.

They were able to harvest higher seed yield of 6000 kg ha^{-1} with low cost of cultivation (Rs.12, 000) when compared to conventional method.

They use seeds for their own now they are marketing their seeds to the farmers of nearby villages.

3. PAPAYA MEALYBUG PARASITOID *ACEROPHAGUS PAPAYA* PRODUCTION AND FIELD RELEASE

Introduction

Mass culturing of Papaya mealy bug *Paracoccus* culturing and *Acerophagus* parasitoid are in progress. Mealy bug cultures are maintained in potato seedlings and parasitoids are cultured under caged and rearing containers.

- Papaya plants with papaya mealy bug are also maintained for the pure culture
- 30,000 parasitoids were produced and utilized for field release, as mother culture for mass rearing in KVKs
- The parasitoids are collected daily and utilized for further parasitoid mass culturing and for the field release.

Papaya Mealybug Parasitoid Release Programmes from KVK, Sandhiyur

- Papaya Mealybug release programmes were conducted from Krishi Vigyan Kendra, Sandhiyur, Salem. Our Vice –Chancellor, Tamil Nadu Agricultural University, Dr. P. Murugesa Boopathy, inaugurated the function and released the papaya mealybug parasitoids ***Acerophagus papayae*** to the progressive farmers of Salem district on 4.1.2011. After releasing the parasitoids, the Vice – Chancellor emphasized the importance of the parasitoids, its fast establishments in the released fields in the biological control of the mealybug in Tamil Nadu. Dr. P. Kalaiselvan, Director of Extension Education, TNAU, explained the involvement of KVKs in mass production of parasitoids and supply to the farming community Dr. E. I. Jonathan, Director (CPPS), explained the parasitoid activity .Thiru. V. Prabhakaran, IFS, Commissioner of Sericulture, Thiru. K. Kausseal, IFS, Managing Director, Sago Serve, Thiru. K.C. Ravichandran, Joint Director of Cooperatives, Salem, extension officials from Dept of Agriculture and Horticulture participated in the programme. About 250 farmers participated and benefited.
- Our Vice –Chancellor released the papaya mealybug parasitoids in tapioca fields at thevur and Pudupalayam kallankattu villages of sankari taluk, Salem district on 10.1.2011, discussed with the farmers on the importance and need of the parasitoids. Dr.P. Kalaiselvan, Director of Extension Education, TNAU, explained the KVK roles in mealybug management by the production of parasitoids and field release. The JDA, Salem, ADA, Sankari and Agricultural officers of Salem participated in this field release programme. About 100 farmers were participated and benefited.
- Totally 11800 parasitoids were field released 1600 parasitoids were utilized for further mass culturing and field demonstrations and 200 parasitoids were given to other KVKs for mass culturing
- In Salem district totally 7600 parasitoids were released in Thevur, Edapadi, Pudupalayam kallankattuvalasu, Sankagiri, Panamarathupatti, Nalikkalpatti, Kammalapatti, Puthur, Thevur, gangavalli villages for the management of papaya mealy bug in tapioca, papaya, guava, tomato, teak and mulberry
- In Edapadi, village mealy bug parasitoids were released on tapioca and demonstrated the method of parasitoid release in fields, and the safety measures needed for the effective multiplication of the parasitoids in the released fields. In Papaya garden at Kammalapatti village, the parasitoids were released
- In Namakkal district totally 4700 parasitoids were released in Keerakadu, Kundani nadu, Therakarai Nadu, Kolli hills, thottivalasu, Athanoor, vennanthur, kuttaladampatti, Rasipuram,

R.Pudupatti, Mullukuruchi, Namagiripettai villages for the management of papaya mealy bug in tapioca, papaya, guava, tomato, teak and mulberry. Parasitoid releases were made in 18 acres of tapioca field in Holli hills through the Namakkal district Starch and Sago Association

- Field releases of parasitoid are being continued and also parasitoids are given to the farmers coming with the problem of the mealy bug.

Field Observation on Mealy bug in Tapioca field

- Further field monitoring is being carried out to find out the parasitization level in the parasitoid released fields.
- Blackening of second instar mealy bug due to the parasitization was observed in the parasitoid released locations. Parasitoid emergence and the population of 2 to 26 nos./ leaf was recorded on tapioca and papaya leaves in Nadupatti and Kammalapatti villages.
- Continuous observations in parasitoid released fields are being taken up to observe the parasitization level, parasitoid emergence and mealy bug reduction.
- Reduction of Papaya mealybug (10-40 per cent) was observed in all fields after parasitoid release.

Parasitoids mass culturing training and cultures were given for mass culturing work to the KVKs**,** Needamangalam and Namakkal

4. SOCIO-ECONOMIC UPLIFTMENT OF RURAL PEOPLE THROUGH BACKYARD POULTRY REARING BY USING GIRIRAJA BIRDS

Background

Backyard Poultry Rearing is being recognised as important component of socioeconomic improvement among the rural people especially landless ,labour, small and marginal farmers. Protein deficiency is a common phenomenon in the diets of rural peoples as their diets are predominantly based on cereals which contain high energy and low protein. So, large rural people face the problem of protein- calorie malnutrition, thus needing animal protein with high biological values which can be met through eggs and meat. Backyard Poultry Rearing generates self employment provides supplementary income with protein rich food at relatively low cost.

As we are well aware that the tastes of desi chicken were accepted widely, obviously it has more demand. But when we think about commercial point of view, problem of low weight gain and less egg production with high mortality in chicks are the major problem observed by KVK Scientist.

Intervention

Introduction of high yielding Giriraja birds suitable for Backyard Poultry Rearing Training on farmers and farmwomen regarding scientific methods of poultry rearing.

Technology and process which was intervented for its success:

KVK has selected 'Giriraja' breed as a need based intervention for tackling the problem with desi bird and planned to introduce Giriraja birds for enhancing poultry keeping entrepreneurship in Salem district. In Salem district, Ammapalayam , P.Mettur and Panamarathupatti villages were selected for birds distribution. Twenty five farmers from selected village given Giriraja chicks (20+1) for backyard rearing.

Economic traits of Giriraja

S.No.	Particulars	Giriraja
1	Weight of Chicks at day- old age(gm)	45

2	Eight week body weight (gm)	1500
3	Feed efficiency (ratio)	1:2.5
4	Survivability at 8 weeks (%)	97
5	Age at sexual maturity (days)	155
6	Egg production (no.)	260
7	Egg weight (gm)	50-55
8	Hatchability (%)	85

KVK Scientist regularly monitor the performance of the chicks providing health care and technical support. KVK made it a point to vaccinate all the birds. Vaccination against Ranikhet disease was done on 7th day and booster dose on 21st day of age.Giriraja birds is more suitable for backyard poultry. But, they do not have the habit of broodiness. There is a problem among the farmer to get a broody hen in all season. KVK solve this problem of hatching by installing small unit of hatchery in KVK for the benefit of farming community. KVK conducted various training programme on brooding, feeding management and vaccination to improve the status of Backyard Poultry Rearing in rural areas of Salem district. Totally 21 trainings were conducted and 125 farmers and 272 farm womens were participated. Technologies like brooding, feeding , vaccination and deworming were imparted to the farmers.

Productivity :

In backyard poultry rearing it is observed that three times higher body weight gain and egg production over desi birds. Mortality and Ranikhet disease incidence are almost nil while 35% in desi chicks.

Performance of Girirajra and Desi birds at farmers field

S.No	Particulars	Giriraja	Desi chicken
1	Weight of chicks at day old age(gm)	45	40
2	Body weight gain at 4 th months age(gm)	2250	1250
3	Livability %	97	75
4	Egg production upto 52 weeks of age	220	90

Production and Economic gain:

The backyard poultry unit having an average 20 birds. From these birds around 4100 eggs were produced within 52 weeks of productive life. From this 3200 day old chicks were produced which cost about Rs. 6400/- (Rs20per chick). Also the culling birds for chicken purpose earning of Rs. 3,000/-. The total gross income is around Rs. 9,400/- from one unit of backyard poultry; while medication and vaccination cost was around Rs. 9,400/- The cost benefit ratio of one unit is 1:3.75.

Impact

Horizontal spread & Acceptance of the technology

Farmers were more interested in rearing this Giririraja birds. Brooding is the problem in this birds. Small unit of hatchery installed in farmer's field by the technical support of KVK scientist. Other farm families purchased day- old chicks from beneficiaries at the rate of Rs.20/chick and reared with their own farm and get benefited. About 30 farmers purchased day- old chicks from selected beneficiaries. All the technical support given by KVK scientist through training, demonstration and farm advisory services.

Backyard poultry thrives on kitchen waste, broken waste grains, insects, ants and worms also backyard organic waste. There is no special management required for Rearing. For Giriraja breed doesn't require vaccination except Ranikhet disease vaccination.

KVK, Salem observed very good response from the beneficiaries and non-beneficiaries. KVK had given wide publicity through extension activities like popular articles and advisory services. Trainings were conducted at management practices of backyard poultry rearing and hence 15% desi birds were replaced by Giriraja birds and overall production was increased due to proper management of backyard poultry rearing.

CO(R)H 3 Hybrid Rice Seed Production


Papaya mealy bug parasitoid mass culturing and release


Rearing Giriraja birds


CASE STUDIES

1. FOLIAR NUTRITION FOR PLANTS

Background:

Micronutrient deficiency is major problem in almost all the crops in Salem and Namakkal Dt. The micronutrient delineation studies revealed that Zinc, Iron, Boron, Copper and Manganese in these soils are deficient more than 20%. During field visits and zonal monthly meetings, this problem is highlighted and some crops are severely damaged due to this problem.

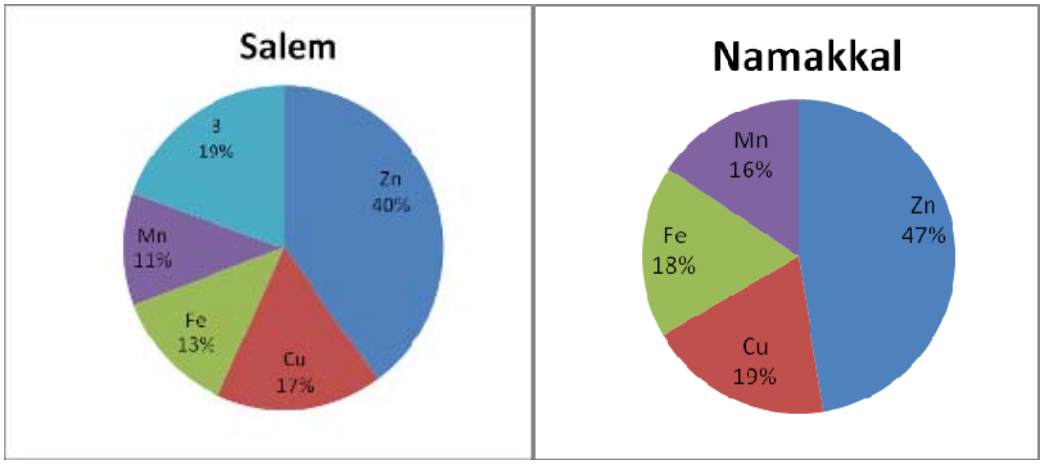


Fig. 1 Micronutrient deficiency in Salem and Namakkal Districts

Intervention: *Foliar nutrition of different formulation of nutrient mixture for plants*

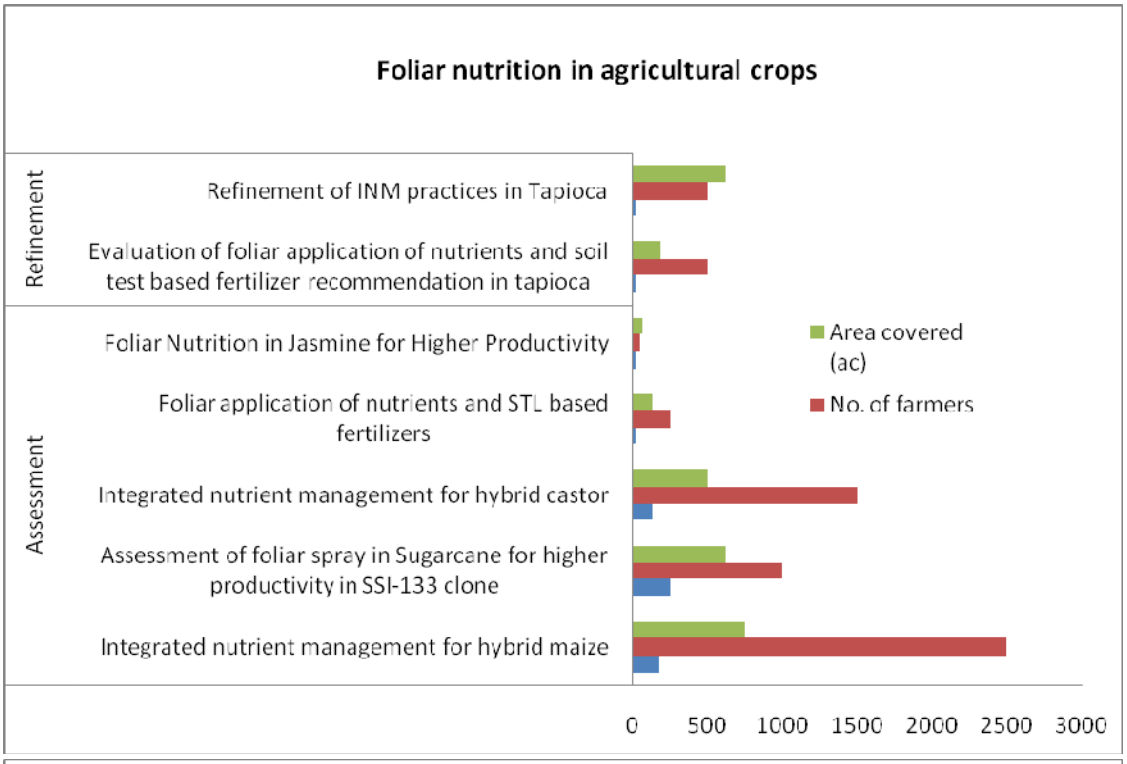
Foliar Nutrition – OFTs and FLDs

To highlight this issue, so far 12 OFTs and 6 FLDs were proposed to popularize the foliar application of micronutrients in many crops like Banana, Turmeric, Tapioca, Cotton, Maize, Mango and Jasmine. The results showed tremendous impact of foliar application of micronutrients in crops and farmers are convinced. Overall, in all the tested crops, foliar nutrition increased the yield by 20% and also the soil health status.

PROCESS & TECHNOLOGY

Training to Extension Officials

Initially trainings were given to the extension officials in the level of Joint Director, Deputy Directors and Assistant Directors of Agriculture and Horticulture department. All ADOs, Agricultural Officers, Horticultural Officers and AAOs at subsequent stages were trained. Totally 6 trainings were given for 212 members of Salem district extension officials.



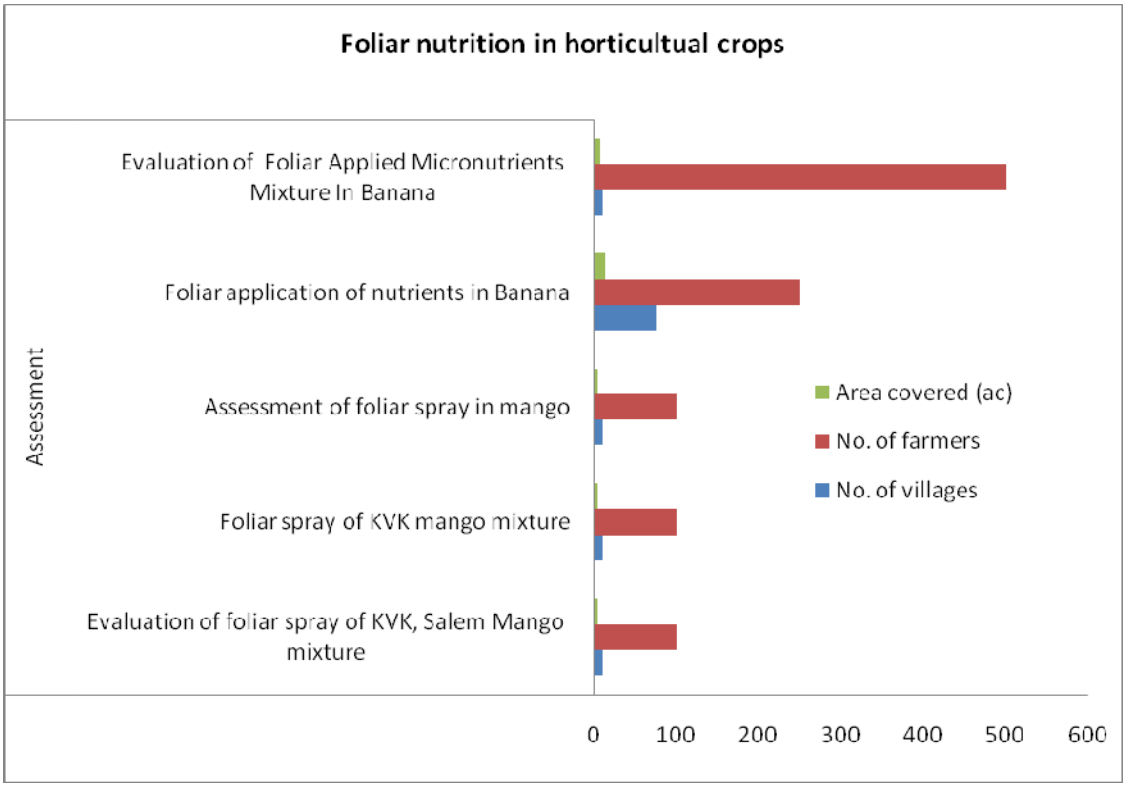
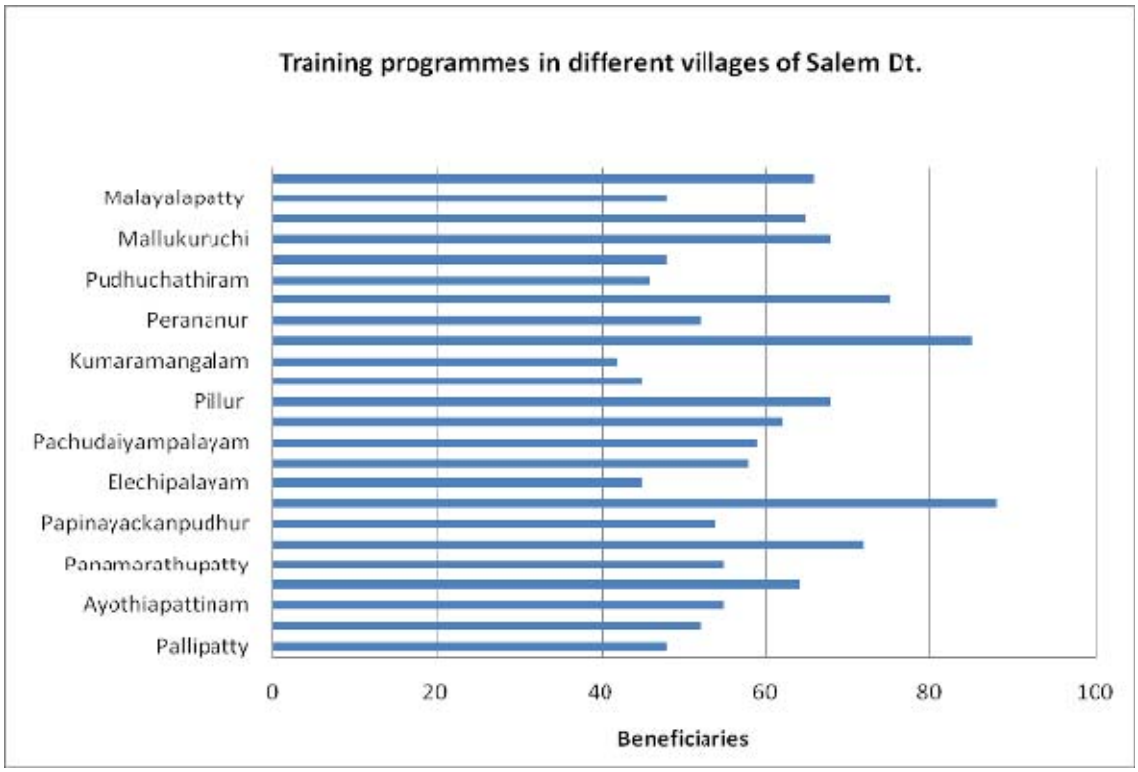


Fig 2 Details of OFTs focussed on foliar nutirtion

Training to Farmers

Trainings were given to the farmers of different villages covering 15 on campus trainings to the farmers and 600 farmers are benefited in selected areas of Salem District. The campaigns mainly focus on all aspects relating to nutrient. Discussions were held on importance of nutrients, nutrient deficiencies, symptoms, correction measures and application of nutrients on different crops. The documentary show gives them first hand information about nutrients.



By this trainings, at present, the extension officials able to differentiate that nutrient deficiency symptoms from effect of other factors. Farmers and extension officials able to realize the impact of micro nutrient deficiencies on decreasing yield and quality and understood wrong application of pesticide and other chemicals can be eliminated by correct diagnosis.

Publications used for foliar nutrition

- The "Visual Diagnostic Kit (VDK)" developed by Tamil Nadu Agricultural University was popularized among the farmers and used for identifying the micronutrient deficiencies.
- A Tamil book on ***"Importance of nutrients and their deficiencies and correction measures"*** during 2004 was published and five hundred copies sold to the trainees for creating awareness and for reference.

Nutrient Deficiencies Related Farm Advisory Services Rendered In Kvk

Year	No of field diagnostic visits	No of advisory services at KVK	Phone messages	Total
2006-07	27	142	57	226
2007-08	33	145	75	253
2008-09	17	165	32	214
2009-10	26	182	36	244
2010-11	26	162	22	210
Total	**129**	**796**	**222**	1147

Now the farmers have gained more knowledge and skill on importance of micronutrients and nutrient deficiencies and hormonal disorders. Hence, they are following regular recommended micro nutrients. Most of the farmers in Salem District are testing their soil and water periodically**.**

Feedback

- Soil application of crop specific micro nutrients is not more effective due to many soil problems
- Foliar application is more effective and immediate saving the crop than soil application (Foliar nutrition can serve as a means of applying supplemental macronutrients during critical growth periods when the it is impracticable to apply fertilizers to soils, perhaps because of an unseasonal period of dry weather. This process may offer a remedy in situations in which the time lag between soil application of fertilizers and plant absorption may be too long to satisfy the needs of fast-growing, annual crops during periods of intense growth).
- Micro nutrients are costlier
- Difficult to weigh small quantity of different micro nutrients with right proportion
- Thorough mixing of required micro nutrients and preparation of solution for particular crops is impossible for many times
- Crop specific liquid micronutrient mixtures are not available from any source.

Impact of foliar nutrition

S. No	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology			Economic gain (%)
			No. of villages	No. of farmers	Area in ha	*20 % additional income*
1.	KCl (0.5 %) + $FeSo_4$ (0.5 %) +$ZnSo_4$ (0.25 %) +B (0.3 %)+ for turmeric	Training, field diagnostic visits, farm advisory services and demonstration	40	120	165	
2.	$ZnSo_4$ (0.25 %) + $FeSo_4$ (1.0 %) + B (0.3 %)+ for Tapioca	Farm advisory services, training cum demonstration	36	130	70	
3.	$CuSo_4$ (0.1%) $FeSo_4$ (0.25 %) +$ZnSo_4$ (0.25 %) +B (0.3 %) + for Banana	Farm advisory services, training cum demonstration	25	85	52	
4.	$FeSo_4$ (0.25 %) + $ZnSo_4$ (0.25 %) +B (0.3 % + for Grapes	Slide show, field visit, training and demonstration	23	40	36	
5.	Urea (1%) $FeSo_4$ (1.0 %) + $ZnSo_4$ (0.25 %) +B (0.3 %) + NAA (40ppm)	Training, field diagnostic visits, farm advisory services and	42	65	42	

	for mango	demonstration				

2. POPULARIZATION OF RCH 708 BT XL COTTON

Background

Most of the cotton farmers of Salem district are growing non Bt cotton which in turn mostly affected by bollworms leads to low yield. More usage of pesticides can be avoided by the cultivation of Bt cotton which leads to reduced cost cultivation. It is suitable for the irrigated situation of Salem district. Besides farmers fetching higher value for the extra long staple cotton, the same has also been preferred by the buyers in the market. Hence the popularization of *RCH 708 Bt XL* is the need of the year to help the cotton farmers of Salem district to enjoy the advantages of the cotton cultivation.

Intervention:

Process & Technology

In Salem District, Kalpaganor and Thedavoor villages of Attur block were selected for conducting FLD on Bt Cotton production technologies. All the selected 50 farmers attended five training courses on "Improved methods in Bt cotton cultivation" in various stages of cotton crop growth and motivated on the technological interventions viz., population maintenance, bio pesticide and bio fertilizer applications, herbicide usage, nipping of terminal buds and foliar application of micro nutrients and growth regulators.

All the selected farmers have adopted the technologies which were taught to them and achieved higher production than local check (average yield increase over control : 18 %). The marketability of RCHB 708 Bt XL was very much appreciated by the farmers besides the high yielding capacity.

Data on the cost of pesticide spraying by the fifty farmers of FLD cotton – production technology was calculated and furnished in the table. The results revealed that the amount spent towards the pesticide spraying was higher in case of TCHB 213 whereas it was lower in case of RCHB 708 Bt XL. The cost spent towards the pesticide spraying ranged from Rs.2400 to Rs.3640 in case of RCHB 708 Bt XL and in case of TCHB 213, from Rs.8200 to Rs.13400. Due to the cultivation of RCHB 708 Bt, a marked saving in pesticide spraying cost was achieved and the same ranged from Rs.4990 to Rs.10550 over the cost spent towards the pesticide spraying in TCHB 213.It was worked out that the reduction in spraying cost ranged from 2.55 to 4.70 times in case of RCHB 708 Bt over and above the cost spent for TCHB 213 against pest attack. The per cent reduction in spray cost ranged from 61 to 78 due to the cultivation of Bt cotton.

On an average, the spray cost for RCHB 708 Bt and TCHB 213 was Rs.3000 and Rs.10700 respectively. The savings in spray cost was Rs.7700 which was 3.57 times lesser than the spray cost compared to TCHB 213 spray cost. The number of spraying was reduced to 3-5 rounds in case of Bt cotton from 14-15 rounds in case of TCHB 213. The per cent reduction in spray cost was 72 and this has further decreased the total cost of cultivation also. The same also helped in getting higher yield of Bt cotton by the farmers.

Because of the effective weeding and reduction in pesticide spray and higher marketability, the cost of cultivation was reduced to 36 per cent when compared to local check. However the higher seed cotton yield increases the picking cost and so the total const of cultivation was reduced to 13 percent in Bt cultivation compared to Check.

Performance of Growth Parameters

Details	Germination (%)	No of bolls / plant	Symbodial branches (No/plant)	Plant height at 140 DAS	Average Single Boll wt (g)	Ginning per cent
Bt cotton	99	98	20-24	165	19.42	36.2
Check	98	70	18-19	148	16.38	34.8

Since the RCHB 708 Bt XL is a heavy feeder of nutrients, those farmers who have applied prescribed fertilizers and manures obtained higher seed cotton yield. Among the fifty demo farmers, Mr. Chinnadurai.P. of Thedavoor village got the highest yield of 40 q/ha followed by P. Chandra (39.3 q/ha) of Thedavoor village. They applied 15 to 17 tonnes of well decomposed organic manure and 50:30:90 kg of NPK / ha besides the foliar spray of nutrients given by us. Because of that their crop maintained greenness in the leaves even after the three pickings. So the crops in their field has higher source sink relationship and produced maximum of 170 bolls per plant and a single boll weight of 32.5 g / boll. However their crops shows higher rate of reddening when compared to others field because of the higher number of bolls production and leaves.

Impact

Reduction in Cost of Cultivation due to RCHB 708 Bt XL

Major operations	Cost (Rs/ ha)	
	RCHB 708 Bt XL	TCHB 213
Seed	1875	1250
Weeding (two weeding)	1625	2250
Pesticides spraying	3000	10700
No. of spraying	3-5 rounds	14-15 rounds
Market value (Rs. / Q)	3500	3200

Among the two villages of demonstration, average yield was higher (38 q/ ha) in Thedavoor followed by kalpaganoor (35 q /ha). This is because of the salinity of the irrigation water and suitability of the soil for cotton. Naturally the soils of Thedavoor is highly suitable for cotton and is a typical block cotton soil

Reasons for the higher economic returns as said by the farmers during field day

- ✓Reduction in cost of cultivation due the reduction of pesticide spray from 14-15 rounds to 3-5 rounds.
- ✓Reduction in cost of cultivation due to the integrated weed management
- ✓Split application of fertilizers and foliar spray of nutrients and NAA reduced the boll shedding and increased the boll weight
- ✓Foliar spray reduced the reddening and square drying besides the picking of seed cotton was also easy due to the good boll bursting
- ✓Clipping of terminal buds increased the boll size and weight and yield

The performance of RCHB 708 Bt XL was really commendable on yield and the bollworm attack was completely absent. Because of that, the pesticide spray was reduced from 14 -15 rounds to 3-5 rounds which in turn reduced the pesticide load applied to the cotton crop and saves the cost of cultivation to the tune of 35 per cent. During field day celebration, other farmers from the villages appreciated the impact of Bt production and assured to adopt the Bt Cotton cultivation in their farm during forth coming season.

3. POPULARISATION OF HIGH YIELDING VARIETIES IN FRUIT CROPS

Background

Cultivation of field crops has become a difficult task in the semi arid and arid regions of Salem, Namakkal and Erode districts due to the following reasons.

- Poor rainfall distribution
- Depletion of water resources
- The growing demand for agricultural labour
- Poor remuneration

Interventions

Process

KVK, Sandhiyur promotes the cultivation of perennial fruit crops such as mango, sapota and amla which are highly suited for the above regions

- ✓ Fruit crops are less labour intensive
- ✓ Gives high remuneration
- ✓ The state government gives subsidy for planting materials
- ✓ Improves social and economic status of the farmers

In commercial nurseries, there is no warranty for the genuine and quality plants. Therefore, the demand for plants from TNAU stations is increasing. This situation has been rightly exploited at KVK, Sandhiyur. A venture capital scheme on 'Large scale production of high quality grafts in fruit crops was initiated at KVK, Sandhiyur with the seed money of Rs. 2,00,000/- during 2003-04.

Technology

In the clonal orchard established at KVK, Sandhiyur, good quality grafts of high yielding varieties of fruit crops viz., mango, sapota and amla were produced and supplied to the state department of Horticulture and farmers of Salem, Namakkal and Erode districts since 2003-04.

Production of high yielding varieties

Crop	Method of propagation	2003-04 to 2009 -10	2010-11
Mango grafts	**Soft Wood grafting Approach grafting**	**Alphonsa, Imampasand, Salem Bangalora, Banganapalli, Neelum, Mulgoa, Sendura, Bangalora, PKM.1, PKM.2**	**Alphonsa, Imampasand, Salem Bangalora, Banganapalli,**
Sapota grafts	**Approach grafting**	**PKM.1, PKM.3, Co.3**	**PKM.1, PKM.3, Co.3**
Amla grafts	**Soft Wood grafting**	**NA.7, Krishna, Kanchan, BSR.1**	**NA.7, Krishna, Kanchan, BSR.1**
Guava layers	**Pot layering**	**-**	**Lucknow 49**

Production and Distribution of high yielding varieties

S.No.	Crop	2003 - 04	2004 - 05	2005 - 06	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11

1.	Mango	1711	35717	18000	693	500	4600	2100	1600
2.	Sapota	19388	25694	17146	6923	1500	3482	-	-
3.	Amla	14945	14712	13299	7683	3950	3629	-	-
4.	Guava	-	-	-	-	-	-	-	300

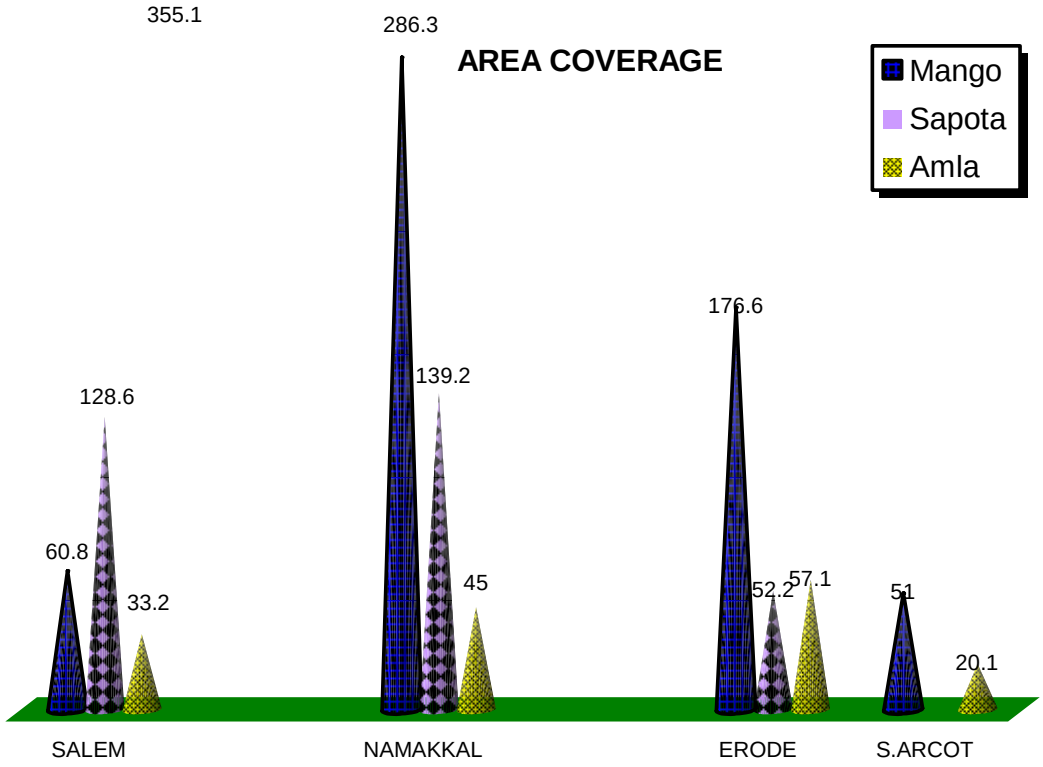
Impact

Horizontal Spread

- KVK, Sandhiyur is successful in extending the area under perennial crop cultivation in the arid and semi arid regions of Salem, Namakkal, Erode and South Arcot districts.

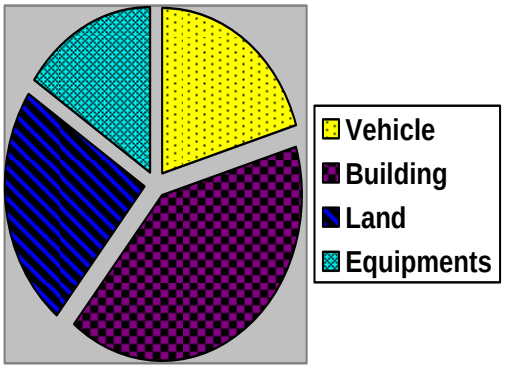
District wise area coverage

Districts	Mango	Sapota	Amla	Total
Salem	60.8	128.6	33.2	**222.6**
Namakkal	286.3	139.2	45.0	**470.5**
Erode	176.6	52.2	57.1	**285.9**
S. Arcot	51.0	-	20.1	**71.1**
Total	**574.7**	**320.0**	**155.4**	



Economic gains

Besides production and supply of high quality planting material, the fund generated from Venture capital scheme was utilized to enhance the infrastructural facilities.



4. PRECISION FARMING IN SALEM DISTRICT

Precision farming is a hi-tech approach which consolidates available technologies relating to soil, water, inputs and varieties and integrates them in an appropriate order so as to enhance the productivity up to the genetic pontential of the crop.

The KVK implemented the Precision farming projects under NADP in five clusters @ twenty farmers per cluster totally for the benefit of hundred farmers in Salem district during 2008-09.

Details on Area of Precision farming implemented in Salem district

Sl.No	Name of cluster	Name of the block	No. of Farmers
1.	Thevur	Sankagiri	20
2.	Thedavur	Gangavalli	20
3.	Keeripatty	Attur	20
4.	Sukkampatty	Ayothiyapattinam	20
5.	Siruvachur,	Thalaivasal	20

Impact of Precision Farming

In order to know the effectiveness of the Precision farming, the KVK conducted an Impact study on Precision farming with all the hundred farmers as sample.

Data collection

Well structured interview schedule was prepared and redefined based on the interactions with experts. The data were collected from 100 beneficiaries. All the respondents were personally contacted, interviewed and collected data are given below.

Awareness and adoption of precision farming technological packages

Technology assessment on precision farming technological packages has been studied and analysed. For easy comprehension and understanding, the precision farming technological package has been divided into five components viz., shade net, protrays, chisel plough, drip irrigation and fertigation for assessing the status of awareness and adoption after the implementation of scheme.

Awareness and adoption on precision farming technologies (n=100)

S.No	Technology	Awareness		Adoption	
		No	%	No	%
1.	Shade net	85	85.00	56	56.00
2.	Protrays	94	94.00	38	38.00

3.	Chisel plough	93	93.00	45	45.00
4.	Drip irrigation	90	90.00	46	46.00
5.	Fertigation	91	91.00	40	40.00

A general trend of increased awareness and adoption has been observed as a significant impact of the introduction of the programme in the study area. This has been found more in the case of awareness domain of the respondents. The participation of the beneficiaries in the TNPFP helped them to get awareness for more than 90 per cent of the respondents on all the five components. Among the components, the awareness on use of protrays (94.00%), chisel plough was more (93.00%) followed by fertigation (91.00%) and drip irrigation (90.00 %).

The adoption of components such as shade net, use of drip irrigation and structures, chisel plough and installation of fertigation unit was found to be comparatively more. Low level of adoption was seen for the use of protrays (38.00%). On enquiry, it was revealed by the farmers that the amount allotted for shade net installation may be enhanced to include purchase of protray also. Thus, a low level usage of protrays was seen in the study area.

Advantages in Precision Farming

Information was collected regarding the facilitating factors, which made the beneficiaries of precision farming to participate in the project and adoption of recommended precision farming technologies. The beneficiaries were enquired about the feasibilities of adoption of recommended technologies in their situations.

Advantages of Precision Farming (n=100)

S.No	Facilitating Factors	No	Per cent	Rank
1.	Increased water saving	95	95.00	I
2.	Decreased cost of labour	60	60.00	II
3.	Less weed growth	57	57.00	III
4.	Time saving	50	50.00	IV
5.	Enhanced level of yield	40	40.00	V
6.	Maintenance of soil fertility	37	37.00	VI
7.	Feasible technologies	9	9.00	VII

Increased water saving

From the above table, it is clear that most of the beneficiaries (95.00%) revealed increased water saving as the major facilitator to the extent of 40-50 per cent as contemplated in the scheme. Also the respondents experienced similar impact at the crop period.

Decreased cost of labour

For 60.00 per cent of the beneficiaries of Precision Farming, decreased cost of labour was the other important facilitating factor. Due to the adoption, the work load in the farm has been reduced to a significant extent especially with regard to irrigation schedules. The intercultural operations have been made very easy. Because of more industrialization in nearby areas, also the labourers are not readily available in their locale and also demanding high wages per day. This situation has been well managed by the beneficiaries by going for Precision Farming in their field due to decreased cost of labour.

Time Saving

Time saving was a facilitator as reported by 50 per cent respondents. Earlier farmers spent a whole day for irrigation practice and fertilizer application. But in Precision Farming, they did not spend much time. It could be clear that the beneficiaries utilized that for attending intercultural operations and other personal works. The technology through adoption of fertigation really helped the farmers in time saving.

Enhanced level of yield

For 40.00 per cent of beneficiaries, enhanced yield of the crops was a facilitator through minimized loss of nutrient due to localized application of fertilizers. For e.g. in maize crop, mostly the usual yield of 3000kgs per acre is replaced with 3800kgs per acre. Thus, the farmers expressed satisfaction in adoption of precision farming due to increased level of nearly 30 per cent yield.

Less Weed Growth

Less weed growth was reported by 57.00 per cent of respondents. Weeding is the major intercultural operation which invites more portions of cost of cultivation and time involvement. Due to increased water use efficiency of crop, the weed growth was found to be less. Because of this, even engaging labour as for weeding practice has been reduced and manual weeding was also taken up only in long intervals than regular interval. In this way, farmers reported much eagerness to adopt Precision Farming.

Maintenance of soil fertility

It could be further seen that 37.00 % of precision farming practicing farmers, maintenance of soil structure and fertility was a facilitator because of the use of chisel plough, irrigation on regular basis, decreased weed growth and minimized soil erosion.

Feasible Technologies

Nearly one tenth (9.00%) beneficiaries percieved that the precision farming Technologies were easily adoptable and advantageous. For example, the production of seedlings through shade net technology helped to get disease free healthy seedlings and the use of water soluble fertilizers through fertigation helped to increase fertilizer use efficiency due to localized application and uniform distribution of water controlled from each of the drippers.

Technological Limitations

Animal and rodent damage to drip lines (90.00%) is the major inhibiting factor as stated by the beneficiaries. It might be due to the reason that animals like dogs and rats are biting the drip line and the drippers. This leads to reinstallation and management was some what difficult because of cost and installation.

Salt accumulation (83.00%) in drip lines and inability to frequent cleaning of filters (76.00%) emerged as other major inhibiting factors. Salt accumulation may be due to the quality of water and nature of fertilizers. Rusting in fertigation tanks (51.00%), non-suitability of other fertilizers (38.00%) and corrosive effect of fertilizers (5.00%) was other factors as stated by the beneficiaries. This might be due to use of low grade fertigation materials, non cleaning of fertigation tanks and continuous use of recommended fertilizers.

Clogging of drippers was another inhibitor reported by more than 35.00% of farmers followed by leakage of water at joints (18.00%) and overflow of water (15.00%). This might be due to either the quality of drip materials or increased water flow by the water force.

Technological Limitations (n=100)

S.No	Technological Limitations	Numbers	Percentage	Ranking
1.	Animal and rodent damage to drip lines	90	90.00	I
2.	Salt accumulation in drip lines	83	83.00	II
3.	Inability To frequent cleaning of filters	76	76.00	III
4.	Rusting problem in fertigation tanks	51	51.00	IV
5.	Non suitability of other fertilizers	38	38.00	V
6.	Clogging of drippers	36	36.00	VI
7.	Leakage of water at joints	18	18.00	VII
8.	Overflow of water at lateral ends	15	15.00	VIII
9.	Corrosive effect of fertilizers	5	5.00	IX

Impact of Precision Farming

The adoption of precision farming technologies has created substantial impact among the respondents. From the table, it could be understood that major impacts like skill development on drip system maintenance, improved knowledge on fertigation technologies, enhanced knowledge on drip and net house materials selection and increased knowledge on marketing secured first, second, third and fourth ranks respectively.

Impact of precision farming (n=100)

S.No	Impacts	Number	Percentage	Ranking
	Technological Impact			
1.	Developed skill on drip system maintenance	98	98.00	II
2.	Improved knowledge on fertigation technologies	71	71.00	III
3.	Enhanced knowledge on drip and net house materials selection	45	45.00	IV
4.	Increased knowledge on marketing	33	33.00	I
	Social impact	89	89.00	I
1.	Developed communication skill			
2.	Gained status of opinion leaders	68	68.00	II
3.	Involved in group activities	39	39.00	III

In the study area, the beneficiaries were exposed to trainings and demonstrations organized by KVK, Sandhiyur which enhanced their knowledge on drip system fertigation and net house installation. Apart from above, the precision farmers have been taken to Jain Irrigation Company at Jalgaon, Maharastra. Also the KVK, Sandhiyur arranged many exposure tours to precision farming groups to Bangalore and Hosur markets through which farmers would have gained enhanced knowledge level on marketing sectors.

Further, it could be inferred that most of the respondents (89.00%) had developed communication skill, while 68.00 per cent gained status of opinion leadership followed by 39.00 per cent of farmers involved in group activities after they became beneficiaries of the precision farming.

The farmers had their net income raised to the tune of 20 fold after adopting the precision farming. This clearly explicit the strength of the technology and dedication of farmers who toiled with his mother earth for great success. Apart from realizing the enhanced and regular income, they are also cultivating the crops during summer season in entire area through single bore well by water saving drip system. Interesting point from this project is that additional area has been brought under the cultivation and mutual water sharing concept has been promoted among the brothers to reap the ultimate benefit of ***more income from the every drop of water for the livelihood security*** of poor farmers in the present day traditional farming system, which owes less profitability.

NADP –Precision farming (2008-09)

As a follow up of this success Precision farming training for the year 2008-09 was conducted at KVK, Sandhiyur during Nov-Dec, 2010 for 1240 beneficiareis of State department of agriculture and horticulture Salem, Erode and Coimbatore districts**.**

Training was given to the farmers on cultivation of crops through drip system, maintenance of fertigation system, community nursery raising and also the farmers were taken to Dharmapuri precision fields for exposture visit. As an outcome of the precision farming trainings nearly 4500 ha cropped area is under drip system in Salem district. Nearly 11 blocks out of the 20 blocks awareness about drip fertigation has been created among the farmers.

5. ERNET (E-LEARNING FACILITY)

Ongoing Jobs by Using Ernet

- Website of KVK
- E-mail Solutions
- ERNET – VSAT (Technology Transfer via Internet)
- Seminar Hall internet facility
- Data Base Management
- Short Message Service
- Video Clippings upload
- Video conferencing
- Power Point preparation
- Kisan Mobile Advisory Service (KMAS) Bulk SMS Pack
- Dynamic Market Information (TNAU - C DAC)
- Online Backup Technology
- Weather Forecast
- On line Reporting system (ATK)

1. Website of KVK :

The **Krishi Vigyan Kendra** - Salem District Official website with detailed information about Departments and official activities was designed and regularly updated. It inaugurated on **21.08.2009**

(Web site : http://www.tnau.ac.in/dee/kvksandy)

- It is **Static Web Design** (Affordable Website Design)
- Designing a **website** is the simplest way to showcase our technologies, services and information in an effective way. It is a cost effective form of advertising our techniques online. **Static web designs** are ideal for downloading images, brochures etc. Static websites are browser friendly and easy to navigate.
- Our **web designing services** starts with understanding the farmer requirement, analyzing and designing the appropriate lay out which translates our technology logic into the desired application.

Advantages of our Static Website Design

- Simple to host & less memory capacity
- Easy navigation for search engines
- Quick to download images, brochures even on lower bandwidths
- Each and every page of the website is editable but the certain knowledge is required
- Can see the preview before adding on live
- Can change the layout of web page when desired
- Web site consists
    - History of KVK
    - Facilities in KVK
    - Departments and its Details
    - Staff strength and contacts
    - Action photo Gallery
    - Schemes and establishment
    - District profile, OFT, FLD and training details
    - Important news about KVK activities and action photos etc
- Regularly updated latest Technology Modules in our website (Last Update November 2010 – No of Viewers 2220)

Responsibilities	Beneficiaries	Source (Web Address)
Website of KVK	(Mass Coverage so far 2220 Viewers) Last Update November 2010	**http://www.tnau.ac.in/dee/kvksandy**

2. E-mail Solutions

- Farmer's comments like complaints and suggestions were collected and provided solutions by mail (**E-mail address : kvksalem@gmail.com)**

Responsibilities	Beneficiaries	Source (Email Address)
E-mail Solutions	34 farmers communicated (65 Mails)	**kvksalem@gmail.com**

Responsibilities	Beneficiaries	Source (Web Site)

ERNET – VSAT (Technology Transfer via Internet)	Unlimited Internet (410 Hours / 336 Users) Hub Training so far 38 Trainings	**http://kvkhub.ernet.in/**
VOIP Phone (Hotline Phone)	Communicated with all other KVK centers	**VOIP No. 8149 & 8150**

3. ERNET – VSAT facility (Technology Transfer via Internet)

- Unlimited Internet Connection on Server/Computers provided by ERNET, effectively utilized for getting latest agricultural information and disseminated to District farmers (maintained Log Book).
- Unlimited voice calls (VOIP Numbers of 200 KVKs/ZPDs & VSAT Hub) interaction with KVK Scientists and Hub Members to share latest technologies (maintained Log Book).
- Live Seminars and Trainings are broadcasted from VSAT Hub, New Delhi. For the benefit of Scientist and Farmers (maintained Log Book).

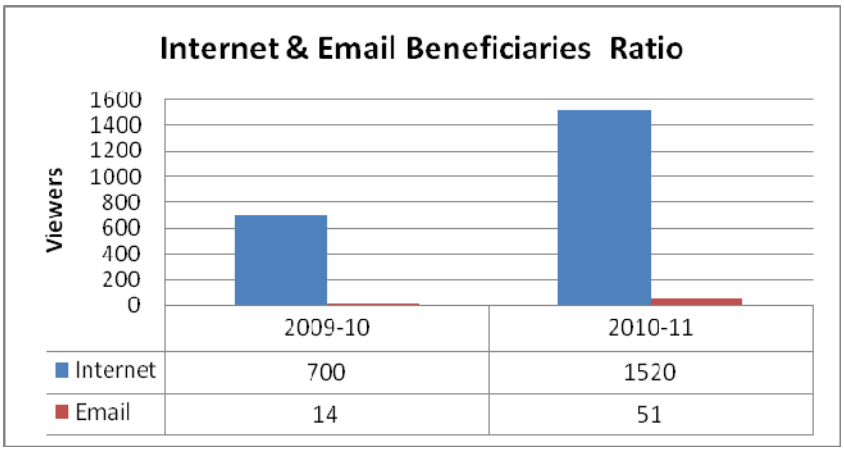
(Web Address: http://kvkhub.ernet.in/)

- Maintained Server, Nodes, Scanner, Printers and other accessories - rectified Hardware and Software related problems (maintained Stock Register).
- ERNET users were Increased with more number of farmers

4. Seminar Hall Internet Facility

- Internet facility provided to the farmers during training
- Implemented Video Conference facility in Training Hall (networked & configured)

Responsibilities	**Beneficiaries**	**Source (Web Site)**
Seminar Hall (Video Conf Facility)	All on campus Trainings 'One to One' / 'One to Many'	**http://www.vcon.tnau.ac.in**
Agritech Portal	All on campus Trainings	**http://agritech.tnau.ac.in/**
Dynamic Market Information (TNAU-CDAC)	All on campus Trainings	**http://indg.in/india/market_information**



5. Data Base Management

Salem district profile: Data base of the district with primary data is to be collected for preparation of resource inventory

Farmers datas: (crop wise / block wise) for sending daily sms, intimation and technical information

FLD & OFT (10 years): documentation is under progress.

File System: Maintained systematic filing of soft datas systematic collection of action photo album

KVK Details:

- KVK Details: Documentation of the KVK Host, Staff, Land information, Infrastructure, Demo units, Lab and Farm Equipments, Vehicle informative data, Library. etc
- KVK Activities: Documentation of the Front Line Demonstrations, On Farm Trials, Trainings, Demonstrations and other extension activities of KVK

Responsibilities	Beneficiaries	Source (Web Address)
Data Base Management	Uploaded to our website (Mass Coverage so far 2220 Viewers)	**http://www.tnau.ac.in/dee/kvksandy**

6. Short Message Service

- Technology, Training information, Weather Report, Agricultural related Forecast, Intimations and Invitation
- 980 farmers are receiving our daily SMS and more than 150 technical SMS sent.
- 100% Cost free technology

Mobile No : 9443664801 (Web site : way2sms.com)

Responsibilities	Beneficiaries	Source (ID/Web Address)
Short Message Service	980 Farmers 150 Technological SMS	**9443664801 (Web site : way2sms.com**)

7. Video Clippings upload

- Technical Information using Video clippings uploaded to Internet, farmers can search those by search through Yahoo, Google etc
- Farm Implements Demonstration (like turmeric boiler, coconut tree climber etc) in Farmers Field also uploaded
- Farmers feedback, Success story were uploaded
- 48 Videos were uploaded more than 400 viewers viewed
- 100% cost free technology

Web Address : http://www.youtube.com (User ID : kvksalem)

Responsibilities	Beneficiaries	Source (ID/Web Address)
Technological related Video Clippings upload	48 Videos were uploaded more than 400 viewers viewed	**http://www.youtube.com** **(User ID : kvksalem)**

8. Video conferencing

- Organized 'One to One' / 'One to Many' type of Conference facility to meet large members
- Connection of Video conferencing events organized by the e-Extension centre of TNAU with KVK Sandhiyur
- Technical Seminars, Trainings and Presentation are shared from KVKs and Research Stations
- Coordinated with Department of Sericulture for State level Conference on improved technology on Sericulture through Video Conference

Web Address : http://www.vcon.tnau.ac.in

Responsibilities	Beneficiaries	Source (ID/Web Address)
Video conferencing	'One to One' / 'One to Few' (So far 30 Programs and 300 farmers)	**http://www.vcon.tnau.ac.in**

9. Kisan Mobile Advisory Service (KMAS) Bulk SMS Pack

Action is being taken to activate the Kisan Mobile Advisory Service. So for 600 farmers are identified for to send SMS. Agricultural technology templates are being prepared for the benefit of the farmers

Web Address: http:// biz.mytoday.com | User ID : 7000000040 | Feed ID : 316742

Bulk SMS Pack (from NetCore Solution Pvt Ltd) service started from 14.12.2010. Collection of mobile numbers is in under progress

Responsibilities	Beneficiaries	Source (ID/Web Address)
Kisan Mobile Advisory Service (KMAS) Bulk SMS Pack	So for 1050 farmers are identified for send SMS	**http:// biz.mytoday.com | User ID : 7000000040 | Feed ID : 316742**

10. Dynamic Market Information (TNAU - C DAC)

Created awareness to farmer to market their produce, informed daily market information about Agriculture & Horticulture produce, Subscribe to farmers mobile to receive Daily Market Prices

Web Address: http://indg.in/india/market_information

Responsibilities	Beneficiaries	Source (ID/Web Address)
Dynamic Market Information	So far 750 farmers registered	**http://indg.in/india/market_information (TNAU - C DAC)**

11. On line Reporting system (ATK)

Data related to the district profile, KVK details, Staff details, and HRM are filled and the remaining data will be filled after getting the required information from the concern staff

Web Address: http://122.169.250.100/icar/home.aspx

12. Weather Forecast

Maintain Automatic weather station and display weather data daily in notice board from December 2008 to till date

Sending weather data to farmers via short message service from March 2010

Web Address: http://www.tawn.tnau.ac.in

Web Address: http://www.mosdac.gov.in

Beneficiaries: Mass Coverage

13. Online Backup Technology

Action is being taken to activate the online backup of Important Files, Photos, and Videos etc in Internet (For Safety and Security purpose)

Web Address: http://www.drivehq.com

ANNEXURE I

ERNET (E-Learning) Hardware Facilities

Hardware List			
S.No	**Accessories**	**Qty**	**Remarks**
1	Server Computer System (Dell PE 2900)	1	Server Room
2	Desktop Computers (Dell Optiplex 755)	5	Lab
3	Desktop Computers (Dell Optiplex 755)		Lab
4	Desktop Computers (Dell Optiplex 755)		Lab
5	Desktop Computers (Dell Optiplex 755)		Lab
6	Desktop Computers (Dell Optiplex 755)		Lab
7	Laser Printer with Toner (HP1505n)	1	Lab
8	Dot Matrix Printer TVS MSP 245	1	Lab
9	Scanner with OCR S/W (HP G3110)	1	Lab
10	650 VA APC UPS for Desktop Computers	5	Lab
11	650 VA APC UPS for Desktop Computers		Lab
12	650 VA APC UPS for Desktop Computers		Lab
13	650 VA APC UPS for Desktop Computers		Lab
14	650 VA APC UPS for Desktop Computers		Lab
15	Online UPS 3 KVA (APC) & 16 Batteries (12V12AH)	1	Server Room
16	DAX Ethernet Switch 24 Port 10/100/1000	1	Server Room
Computer Furniture List			
1	Godrej Table (Buddy)	6	1 Server + 5 Nodes installed
2	Godrej Printer Table (Buddy) Without Keyboard Tray	2	Printer & Scanner installed
3	Godrej Chair (PCH4103)	10	9 Lab + 1 Head Room
V-Sat (Satellite) Unlimited Internet surfing Facilities 256 KBPS Speed			

Video Conference Hardware Facilities

S.No	**Accessories**	**Qty**	**Remarks**
1	Apple Imac Workstations (Dell PE 2900)	1	Lab
2	1 KVA BR1000IN & BR24BP Battery Pack(APC)	1 set	Lab
3	1 KVA BR1000In & BR24BP Battery Pack(APC)	1 set	Server Room
Wired Hi Speed Internet surfing Facilities 1 MBPS Speed			

Dynamic Market Information Registered Details

Year (2009-10) Krishi Vigyan Kendra, Sandhiyur, Salem District.

S.N	Month (2010-11)	No. of Farmers Directly Visit	No. of farmers benefited Thro ON/OFF Campus Trainings	Total Beneficiaries Market Info Sent / Not	Remarks / Web Site Details
1	April 2009	-	-	-	
2	May 2009	-	-	-	
3	June 2009	-	-	-	
4	July 2009	-	95	95	
5	August 2009	-	34	34	
6	September 2009	6	46	52	Cost free Technology
7	October 2009	4	58	62	Web Site:
8	November 2009	11	91	102	**http://indg.in/india/market_information**
9	December 2009	15	22	37	TNAU – C DAC
10	January 2010	12	67	79	
11	February 2010	8	49	57	
12	March 2010	6	24	30	
	Total	**62**	**486**	**548**	

Dynamic Market Information Registered Details

Year (2010-11) Krishi Vigyan Kendra, Sandhiyur, Salem District.

S.N	Month (2010-11)	No. of Farmers Directly Visit	No. of farmers benefited Thro ON/OFF Campus Trainings	Total Beneficiaries Market Info Sent / Not	Remarks / Web Site Details
1	April 2010	14	38	52	Cost free Technology Web Site: **http://indg.in/india/market_information** TNAU – C DAC
2	May 2010	15	126	141	
3	June 2010	10	183	193	
4	July 2010	11	101	112	
5	August 2010	16	33	49	
6	September 2010	13	99	112	
7	October 2010	16	34	50	
8	November 2010	21	55	76	
9	December 2010	19	90	109	
10	January 2011	12	310	322	
11	February 2011	9	25	34	
12	March 2011	6	20	26	
	Total	**162**	**1114**	**1276**	

Daily SMS abstract - Year (2010-11)

Krishi Vigyan Kendra, Sandhiyur, Salem District.

S.N	Code of KVK given by service Provider	Month (Year) wise (2010-11)	No. of Message Sent	No. of farmers benefited	Technological SMS	Forecast SMS	Cost involved	Reamark if any
1	Login ID : 7000000040 Key Word : KVK Mallur	April 2010	41	796	21	20	Cost free Sent Via Way2sms.com Website. Id : kvksalem Mobile Id : 94860 43360	Bulk sms pack was received only on December 2010. Preparing necessary database to upload contact list. From April 2011 onwards plan to use that pack
2		May 2010	52	796	31	21		
3		June 2010	41	820	21	20		
4		July 2010	40	820	19	21		
5		August 2010	55	820	34	21		
6		September 2010	54	855	34	20		
7		October 2010	40	855	19	21		
8		November 2010	41	855	21	20		
9		December 2010	46	868	25	21		
10		January 2011	62	686	42	20		
11		February 2011	44	900	25	19		
12		March 2011	34	900	14	20		
		Total	**550**	**900**	**306**	**244**		

Daily SMS abstract - Year (2009-10)

Krishi Vigyan Kendra, Sandhiyur, Salem District.

S.N	Month (2010-11)	No. of Message Sent	No. of farmers benefited	Technological SMS	Forecast SMS	Remarks / Web Site Details
1	April 2009	11	150	7	4	Cost free Technology Web Site: Way2sms.com Log in Id : kvksalem Mobile Id : 9443664801 Form Jan 2010 Mobile Id: 9486043360
2	May 2009	12	152	8	4	
3	June 2009	21	152	13	8	
4	July 2009	32	152	24	8	
5	August 2009	30	340	22	8	
6	September 2009	24	340	16	8	
7	October 2009	20	410	12	8	
8	November 2009	28	410	20	8	
9	December 2009	65	410	49	16	
10	January 2010	71	600	55	16	
11	February 2010	63	600	47	16	
12	March 2010	45	700	29	16	
	Total	**422**	**700**	**302**	**120**	

Videos Uploaded via You-Tube

Year (2009-10) Krishi Vigyan Kendra, Sandhiyur, Salem District.

S.N	Month (2010-11)	No. of Videos Uploaded	Total No. of Videos in our account	No. of Viewers Visited	Total Beneficiaries	Remarks / Web Site Details
9	December 2009	3	3	37	37	Cost free Technology Web Site: **http://www.youtube.com** (User ID : kvksalem)
10	January 2010	1	4	79	116	
11	February 2010	5	9	57	173	
12	March 2010	6	15	30	203	
	Total	**15**	**15**	**203**	**203**	

Videos Uploaded via You-Tube

Year (2010-11) Krishi Vigyan Kendra, Sandhiyur, Salem District.

S.N	Month (2010-11)	No. of Videos Uploaded	Total No. of Videos in our account	No. of Viewers Visited	Total Beneficiaries	Remarks / Web Site Details
1	April 2010	2	17	52	255	Cost free Technology Web Site: **http://www.youtube.com** (User ID : kvksalem)
2	May 2010	6	23	41	296	
3	June 2010	2	25	65	361	
4	July 2010	1	26	62	423	
5	August 2010	3	29	59	482	
6	September 2010	4	33	56	538	
7	October 2010	3	36	67	605	
8	November 2010	2	38	86	691	
9	December 2010	1	39	38	729	
10	January 2011	2	41	45	774	
11	February 2011	2	43	104	878	
12	March 2011	5	48	112	990	
	Total	**33**	**48**	**787**	**990**	

Video Conference Facilities abstract - Year (2010-11)

Krishi Vigyan Kendra, Sandhiyur, Salem District.

S.N	Month (2010-11)	No. of Farmers Directly Visit	No. of farmers benefited Thro ON/OFF Campus Trainings	Total Beneficiaries Market Info Sent / Not	No. Programs / Seminars Conducted	No. Extension Person Participated in KVK Salem Room	No Extension Center / KVK Involved	Remarks / Web Site Details
1	April 2010	14	38	52	-	-	-	
2	May 2010	15	126	141	-	-	-	
3	June 2010	10	183	193	1	2	1	
4	July 2010	11	101	112	1	3	1	
5	August 2010	16	33	49	6	22	11	
6	September 2010	13	99	112	1	30	7	
7	October 2010	16	34	50	2	15	12	Web Site: **http://www.vcon.tnau.ac.in** TNAU
8	November 2010	21	55	76	5	30	12	
9	December 2010	19	90	109	2	12	6	
10	January 2011	12	310	322	1	7	6	
11	February 2011	9	25	34				
12	March 2011	6	20	26				
	Total	**162**	**1114**	**1276**				

Consolidated Beneficiaries List

ERNET Responsibilities	Beneficiaries	Source (Web Address / Email Address)
Website of KVK	(Mass Coverage so far 2220 Viewers) Last Update Nov '10	http://www.tnau.ac.in/dee/kvksandy
E-mail Solutions	34 farmers communicated (65 Mails)	kvksalem@gmail.com
ERNET – VSAT (Technology Transfer via Internet) VOIP Phone (Hotline Phone)	Unlimited Internet (410 Hours / 336 Users) Hub Training so far 38 Trainings Communicated with all centers	http://kvkhub.ernet.in/
Short Message Service	980 Farmers 150 Technical SMS	9443664801 (Web site : way2sms.com)
Kisan Mobile Advisory Service (KMAS) - Bulk SMS Pack	So for 1050 farmers are identified for send SMS	http:// biz.mytoday.com | User ID : 7000000040 | Feed ID : 316742
Dynamic Market Information (TNAU - C DAC)	So far 750 farmers are introduced and registered to send Daily Market information	http://indg.in/india/market_information
Video Clippings upload	48 Videos were uploaded more than 400 viewers viewed	http://www.youtube.com (User ID : kvksalem)
Video conferencing	'One to One' / 'One to Few' (So far 30 Programs and 300 farmers)	http://www.vcon.tnau.ac.in
Seminar Hall (Video Conf Facility)	All on campus Trainings 'One to One' / 'One to Many'	http://www.vcon.tnau.ac.in
Data Base Management	So Far 5 Data Base Mass Coverage (Uploaded on Web site to view details)	Salem district profile, Farmers database, FLD & OFT (10 years), File System & Photo Album KVK Details
Online Backup Technology	Backup important files such as Annual, Action Plan Reports etc to Server on internet for storage safety.	http://www.drivehq.com
Weather Forecast	Daily Weather Report were sent to farmer and stacked to notice board	http://www.tawn.tnau.ac.in http://www.mosdac.gov.in
On line Reporting system (ATK)	KVK Salem Documentation in Online	http://122.169.250.100/icar/home.aspx

Micronutrient deficiency and foliar nutrition

Popularisation of cotton hybrid (RCH Bt XI)

Grafting in high yielding fruit trees

Videoconferencing with sericulture farmers

NADP – Precision Farming (Exposure visits)

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

Innovative Methodology adopted	Technology transferred
Conducting PRA through RAWE programme (B.Sc. Students)	Sustainable Sugarcane initiative, mechanization of sugarcane, oral pellet vaccination
Folk media (Villupattu) blended with modern electronic gadgets (CD format)	SRI technology, Precision farming aspects
Participatory approach Appointed technical input provider	Mechanisation in Tapioca, turmeric and paddy
Commodity approach	Popularization of white seeded variety of Sesame and High yielding variety of cotton
Cluster approach	Seed production training
FFS mode	Onion production and plant protection technologies
Providing implements to the farmers on free of cost from KVK	Popularization of farm implements viz., Paddy direct sown drum seeder, Hand weeders, power weeder, cotton shredder and rotavator

10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	Sugar cane	Sugar cane Harvesting knife	• A flat shaped iron blade is attached with wooden pole, tools like axe • The length of the blade is 15 cm, width is 12 cm. It is traditionally used for harvesting the sugarcane.
2.	Sugar cane	Detrasher	Removal of trashes mechanically
3.	SRI Cage wheel type weeder	Cage wheel type weeder	Easy operation in heavy clay soils

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

Identification of courses for farmers / farm women

- ❖ Participatory methods and formal surveys
- ❖ Bench mark surveys and meetings are used to identify problems
- ❖ Location specific and need based
- ❖ Group discussion with farmers during the field visit
- ❖ Ex trainees meeting
- ❖ FDG convener meetings and trainings
- ❖ Field problems brought by the farmers
- ❖ Existing farming situation *viz.*, drought, pest and disease out break
- ❖ Based on the soil and water test analysis report
- ❖ Success / failure cases

- ❖ Farm advisory services record

Rural Youth

- ❖ PRA technique
- ❖ Focused group discussion with school dropouts in villages
- ❖ Brain storming method
- ❖ Felt need based courses to promote self employment
- ❖ Based on resource potential

In service personnel

- ❖ Need based
- ❖ Problem centered
- ❖ Season and crop oriented

10.G. Field activities

i. Number of villages adopted : 28
ii. No. of farm families selected : 322
iii. No. of survey/PRA conducted : 35

10.H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab

1. Year of establishment : **23.05.2005**
2. List of equipments purchased with amount :

Sl.No.	Name of the Equipment	Qty	Cost (Rs.)
1.	Spectrophotometer	1	80,172
2.	Flame Photometer	1	36,720
3.	pH Meter	1	8,440
4.	Conductivity Bridge	1	8,441
5.	Chemical Balance	1	1,19,600
6.	Water Distillation Still	1	27,851
7.	Kjeldahl digestion &distillation unit	1	1,72,675
8.	Shaker	2	44,094
9.	Refrigerator	1	19,500
10.	Oven	1	8,845
11.	Hot Plate	1	1,872
12.	Grinder (Willey Mill)	1	11,582
Total		**13**	**5,39,792**

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	3481	2896	1424	87025
Water Samples	3242	2808	1343	32420
Plant samples	-	-	-	-
Manure samples	-	-	-	-
Others (specify)	-	-	-	-
Total	6723	5704	2767	119445

Details of samples analyzed during 2010-11

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized
Soil Samples	255	145	59	6375
Water Samples	240	160	83	2400
Plant samples	-	-	-	-
Manure samples	2	1	1	50
Others (specify)	-	-	-	-
Total	497	306	143	8825

10.I. Technology Mela celebration

1. Period of observing Technology Mela: 15.2.2011

Total number of farmers visited : 750
Total number of agencies involved : 10
Number of demonstrations visited by the farmers within KVK campus : 12

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	1	750	**Farm Mechanization and Value Addition**
Lectures organized	6	750	Usage of farm implements and machineries Agricultural Engineering technologies for rainfed farming Value addition Drip irrigation systems SSI method of Sugarcane cultivation Mealy bug management through parasitoids
Exhibition	1	700	Farm implements and machineries
Film show	3	750	Farm mechanization and value addition Drip laying procedures Precision farming

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Fair	1	400	Value addition
Farm Visit	2	400	Sugarcane SSI New varieties and hybrids in crop cafeteria Clonal orchard of fruit crops Shade net protray nursery Slatted floor goat rearing
Diagnostic Practicals	2	400	i..Mealy bug incidence on tapioca, cotton, mulberry, guava and identification of papaya mealy bug ii. Nutrient deficiencies in crops
Supply of Literature (No.)	10	750	i.. Farm implements and machineries ii. Value addition iii.Turmeric boiler iv. Soil sampling techniques v.Mealy bug management through parasitoids
Supply of Seed (q) Small onion CO On5 seeds	2	13	Nursery raising, cultivation technology
Supply of Planting materials (No.)	1 2 1	45 57 6	Mango, sapota and amla grafts BSR 2 Turmeric seed rhizome COTH 2 tomato protray seedlings
Bio Product supply (Kg)	-	-	-
Bio Fertilizers (q)	-	-	-
Supply of fingerlings	-	-	-
Supply of Livestock specimen (No.)	-	-	-
Total number of farmers visited the technology mela		750	Farm mechanization and value addition

Technology mela Exhibition cum Training Programme on Farm Mechanization and Value Addition

Presidential speech by the Vice- Chancellor, TNAU, Coimbatore

The Vice- Chancellor, TNAU, Coimbatore visit to Exhibition stalls

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

A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries
Tamil Nadu	Wheat	2	5
	Paddy Co 49	2	10
	Paddy CORH 3	2	10
	Tomato – COTH2	2	12
	Onion Co on 5	2	15
	Castor YRCH 1	2	15
	Blackgram Vamban 4	2	6
	Turmeric – BSR 2	120	75

B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Castor YRCH 1	70	150
Groundnut		
Sunflower		
Pulses		
Blackgram Vamban 4	10	20
Cereals		
Paddy Co 49	50	120
Paddy CORH 3	10	25
Wheat	10	20
Vegetable crops		
Tomato – COTH2	20	45
Onion Co on 5	35	80
Tuber crops		
Turmeric – BSR 2	120	75
Fodder crop		
Cumbu napier Co 4	20	75
Fodder sorghum COFS 29	10	25
Kuthiraivali 2		
Total	355	635

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No.of participants
Maharastra	Goat- Slatted Floor Goat rearing	1	12
Tamil Nadu	Poultry – Japanese quail rearing	10	10
Tamil Nadu	Poultry – Emu farming	5	7
Tamil Nadu	Poultry- Turkey	4	5
Tamil Nadu	Goat- Breeds	50	125
Total		70	159

D. Animal health camps organized

State	Number of camps	No.of animals	No.of farmers
Tamil Nadu	2	225	110
Total	2	225	110

E. Seed distribution in drought hit states

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Tamil Nadu	Paddy TRY 1	30	42	60
	PaddY TRY 1	45	60	73
	ADT 43	20	26	20
	Minor millet Kuthiraivali Co (KV) 2	12	10	21
Total		107	138	174

F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Tamil Nadu	Vermicompost	10	25
	Microbial consortia for composting	5	10
	Paddy-SRI	280	360
	Sugarcane- SSI	10	15
	Sugarcane Power weeder	12	4
	Sugarcane sett cutter	10	10
	Chaff cutter	20	25
	Poultry – desi chicken rearing	1000 birds	82
Total		347	449

G. Awareness campaign

State	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
Tamil Nadu	12	320	-	-	10	250	-	-	6	950	20	520
Maharashtra	1	18	-	-	-	-	-	-	1	22	-	-
Total	13	338	-	-	10	250	-	-	7	972	20	520

PART XI. IMPACT

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

Name of specific technology transfer	No. of participants	% of adoption	Change in income (Rs./ ha)	
			Before training	After training
SRI in paddy	615	80	20000	45000
Seed production in redgram	55	5	30000	65000
SSI in Sugarcane	35	8	100000	200000
Precision farming in vegetable crops	1240	70	125000	250000
Protray nursery raising in vegetable crops	20	30	1000	6000
Seed rhizome treatment in turmeric	358	75	350000	375000
Turmeric boiler	288	32	400000	450000
Foliar nutrition in banana	61	55	75000	87500
Paddy direct sown drum seeder	415	49	Rs. 12840	Rs. 20420
Castor as a pure crop	4012	70	Rs. 9250	Rs. 25540
Maize as an alternate crop	2016	76	Rs. 10240	Rs. 37480
Integrated weed management	720	32	Normal yield	13 % increased yield
Management of rhizome rot in turmeric	1230	85	Rs.20,500/ ac	Rs.65,000/ ac
Management of Panama wilt of banana through corm injection of carbendazim	1315	75	Rs.9,400/ac	Rs.32,650/ac
Management of Mango fruit fly using traps	620	65	Rs. 50,000 /ha	Rs.1,25,000/ha
Estrous Synchronisation	110	41	Rs. 9000/cow	Rs. 30000/cow
Oral pellet vaccination to control Ranikhet disease	150	75	Rs. 4000/year	Rs.8500/year
Popularisation of Giriraja birds	75	60	Rs. 5000/year	Rs.14000/year
Low cost Incubator	232	25	Rs. 7000/year	Rs. 2300/year
Biological control of plant diseases using *Trichoderma* and *Pseudomonas*	1130	55	3-4 rounds of chemical fungicide use	Reduction in 2-3 rounds of chemical fungicide use
Vermicompost production	280	40	20000	30000
Honey bee rearing	575	45	Normal income depending on the crops	Additional income of Rs. 3000/ month
Mushroom cultivation and value added products preparation in mushroom	950	45	Normal income depending on the crops	Additional income of Rs. 3000/ month

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

2. Management of rhizome rot in turmeric

Turmeric is the major spice crop of Salem district. Every year, more than 80% of the farmers face heavy loss due to the severity of turmeric rot. Around 90% of the turmeric growing farmers do not adopt seed treatment which is very much essential to control the disease. Besides this, poor drainage and heavy rains aggravate the problem. Majority of the farmers relate this disease to rains and do not follow any appropriate control measure such as drenching of rhizomes with fungicide.

Technology recommended:

1. Basal application of neem cake (80 kg/acre)
2. Rhizome treatment with fungicide Copper Oxy Chloride @ 2.5 gm/ lit
3. Soil application of *Trichoderma viride* (2.5 kg/ha) + *Pseudomonas fluorescens (*2.5 kg/ha)
4. Soil drenching of Copper Oxy Chloride @ 2.5 gm/ lit in the affected plants

Problem identification and dissemination of technology

Through farm advisory services

Through on and off campus trainings

Through seminars

Field diagnostic visits

Biological control of plant pathogen is one of the components in integrated disease management. *Trichoderma viride* is a fungal bioagent effective against rhizome rot. *Trichoderma* @ 1 kg with 20 kg of farmyard manure is thoroughly mixed and applied for one acre. Earlier there was no awareness in the use of bio control agent. Due to the trainings on biocontrol agents and the trials, the use of *T. viride* increased Farmers can able to understand the effect of the *T. viride* , realized its impact in disease management . Various types of extension activities increased the adoption rate of this technologies in turmeric rhizome rot management. Many farmers viewed that the rhizomes after harvest were free of seed borne rot diseases due to *Trichoderma* application.

Horizontal spread of technology		
No. of villages	**No. of farmers**	**Area in ha**
40	2950	450

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

1. Popularisation of small onion var CO On 5

Back ground

Onion being a more profitable crop is gaining popularization among the farmers of Salem Dt. Conventional method of planting using bulbs had faced many problems like storage of seed bulbs needs more space, storage diseases, transporting of the seed bulbs to the field was tedious, poor bulb size and low yield. So the current technology has been popularized using seeds for propagation.

Interventions

Process

CO On 5 was the latest released small onion variety which sets seed and can be propagated by seeds. Introduction of this variety had solutions for all the above said problems. Hence during the year 2008-09 Popularisation of this variety was taken through Front line Demonstration in 12 farmers field at Puthur, kondalampatty, Salem.

Technology

Trials were taken up and trainings were given on various aspects like, nursery raising, cultivation technology, Integrated nutrient management, integrated pest and disease management, Seed production technology etc.

Impact

Horizontal Spread

Farmers were satisfied with the ease of storage of seeds, easy transport of seed materials, and bigger bulb size and high yield. Hence the market value was more which fetched higher price. Mr. Raja, farmer of puthur, cultivated this onion during sept-nov and got more price in the market due to increased bulb size and appealing colour of the bulbs. He gave his success as a story in newspaper and Valarum velanmai through which the variety was popularized and more farmers visited KVK to get onion seeds. So far 55 farmers approached KVK and nearly 50 kg of seeds had been procured and distributed to the farmers. Now the area under this variety is nearly 75 acres at Salem district.

Economic gains

Due to high yield farmers got more price in the market and also 20 % of the beneficiaries started seed production through contract farming in tieup with Department of vegetable crops, TNAU, Coimbatore. This variety has improved the livelihood of many farmers in a short period of time and many of the farmers became merchants by selling the seeds.

Demo of CO On 5 onion nursery at KVK

Transplanted seedlings in the field

CO On5 field at Puthur, Kondalampatty

Harvested onion bulbs kept at KVK, Sandhiyur for display

2. **Popularization of Hill Wheat (CO W1) in Salem District**

a. Background

Wheat is a remunerative crop cultivated mostly in North India during rabi season and in hilly areas of Tamil Nadu. In Tamil Nadu, wheat is cultivated in Western Ghats especially in Theni district for a long time. However, it was not popular in other parts of Tamil Nadu. Since, wheat has better market price and requires less water and maintenance it can be popularized as an alternate crop for paddy among the farmers. With this in view, the hill wheat variety CO W1 suited for plains was released and test verified in most parts of Tamil Nadu. It had a yield range between 2.5 – 5 tonnes/ ha.

b. Interventions

Crop diversification - Introduction of wheat as alternative crop to paddy

Process

A frontline demonstration was conducted involving six farmers to popularize the hill wheat among the farmers of Salem Dt in an area of 3 ha. The FLDs were conducted in Mettur, Gangavalli, Omalur and Attur blocks of Salem Dt. Wheat seeds were received from IARI- Regional Research Station, Wellington, Ooty and distributed to the farmers. Trainings and demonstrations were conducted to farmers of the respective villages involving Department officials and press. Field days were conducted during vegetative and harvest stages explaining the crop cultivation aspects.

Technology

The hill wheat variety CO W1 suited for plains has duration of 85 - 102 days. The best season is Nov- Dec and the sowing has to be taken before Nov 15 or before the onset of north east monsoon. It is resistant to root rot with an average yield of 2.5 - 4 tons/ ha. It had a germination percentage of 89%

Cultivation details	
Seed rate	40 kg/ ac
Fertilizer dose	40 : 24 : 16 NPK kg/ ac (N and K in 2 splits after 30th day)
Irrigation	5 times (Initial, 15, 35, 55 and 75 th DAP)
Weeding	Spray weedicide, Stam (80 ml/ 10 litres) on 2nd day
Plant protection	Resistant to rust and root rot

c. Impact

Horizontal spread

Wheat cultivation gained farmers interest in the surrounding villages and it became popular both in Salem and Namakkal districts. Mr. Srinivasan, one of the FLD contact farmers was highly satisfied with the wheat cultivation and since it was grown for the first time in that village, farmers in surrounding villages and also press (Dinakaran, Kalaikathir, Dinamalar) visited his farm and has published his success story in the newspapers. He said initially he had his doubts of growing wheat in his village but he was highly satisfied with the performance and yield. The attractive aspect of wheat cultivation was mainly its market price and also less maintenance. After publication in newspapers, many farmers all over Tamil Nadu contacted KVK regarding the wheat cultivation and expressed their interest to grow wheat. More than 50 farmers have asked for procurement of wheat seeds and pamphlets were given to all farmers visiting KVK. At least this year the area will increase from 20 ac to 50 ac in Salem district alone. Also in Namakkal district, wheat was grown on trial basis in Kapaloothu and Karkoodalpatti and few tracts of Kolli Hills. The highest yield recorded was 4.2 tons/ ha and the minimum was 3.0 tons.

Economic gains

A farmer can have a net return of Rs. 57500/ ha by cultivating wheat. The BCR ratio is 4.97, which is highly profitable compared to paddy (BCR 2.76). Also compared to paddy, the water

requirement and maintenance is less. There is lot of demand for wheat in the market and farmers can get good profit margins in this district. The FLD farmers are happy to store the harvested wheat for seed purpose.

Comparison of wheat cultivation with paddy in this tract

Economics	**Wheat**	**Paddy**
Gross cost	14500	34000
Gross return	72000	93750
Net return	57500	59750
BCR	4.97	2.76
Price (Rs/kg)	Seed – Rs. 25; Grain – Rs. 15	Rs. 10

Field diagnostic visit at wheat field

Mr. Srinivasan – FLD farmer with his wheat

Farmers' discussion

Wheat crop for harvest at Nariampatti

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
Department of Agriculture	Mid-monthly and monthly zonal workshops Pre-kharif and pre-rabi season trainings and joint implementation, joint diagnostic survey
Department of Horticulture	Mid-monthly and monthly zonal workshops Pre-kharif and pre-rabi season trainings and joint implementation, joint diagnostic survey
District Collectorate, Salem	Farmers' grievances day, trainings
District Collectorate, Namakkal	Farmers' grievances day, trainings
Nationalized banks	Seminar , meetings, joint implementation and training
Welfare Centre for Women and children	Training
Department of Animal Husbandry	Trainings and Health Campaign
Farmers Training Centre, Salem	Training
DRDA, Salem	Seminar ,Workshop ,Trainings
DRDA, Namakkal	Seminar ,Workshop ,Trainings
HRS, Yercaud	Joint diagnostic survey and joint implementation, Meeting and Trainings
TCRS, Yethapur	Farmer's day celebration, joint diagnostic survey and joint implementation, Meeting and Trainings
Rotary club	Meetings , Trainings
Lions club	Meetings, Trainings
NGO'S - World vision	Seminar ,Workshop ,Trainings

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

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.)
Venture capital scheme on production of quality planting materials in fruit crops	Aug, 2003	TNAU	2,00,000
Establishment of Model nursery at KVK, Sandhiyur	Sep,2008	NHM	18,50,000
NADP –Precision farming	2009	State gov.	10, 35,000
NADP- Farmers participatory approach in pulses seed production	Feb,2011	State gov.	90,000

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district : No

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

Coordination activities between KVK and ATMA during 2010-11

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	**Meetings**				
02	**Research projects**				
03	**Training programmes**				
04	**Demonstrations**				
05	**Extension Programmes**				
	Kisan Mela				
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
06	**Publications**				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
07	**Other Activities** (Pl. specify)				
	Watershed approach				
	Integrated Farm Development				
	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
1	Establishment of Model nursery at KVK, Sandhiyur	Erection of shadenet house, Erection of mist chamber, Digging of borewell Installation of submersible motor pump, Installation of drip irrigation Purchase of rootstocks, grafting and planting, Purchase of Power tiller with hydraulic trailer, Purchase of potting mixture, Purchase of field boards and Paints etc.,	**18,50,000**	**18,50,000**	**Nil**

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

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2010	41	796	
May 2010	52	796	
June 2010	41	820	
July 2010	40	820	
August 2010	55	820	
September 2010	54	855	
October 2010	40	855	
November 2010	41	855	
December 2010	46	868	
January 2011	62	686	
February 2011	44	900	
March 2011	34	900	

(Sent Via Way2sms.com website. *Id : kvksalem Mobile Id : 94860 43360.* Bulk SMS pack was received only on December 2010. Preparing necessary database to upload contact list. From April 2011 onwards plan to use that pack)

PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Fodder bank	2010	0.2	Cumbu napier, guinea grass, COG3, fodder sorghum (COFS29)	Fodder cuttings and seed	20,000 cuttings 4000 cuttings 10 kg	2000 1000 1000	6000 3000 2000	-
2	Crop cafetaria	2010	0.1	Ground nut (CO6)					
				Sunflower					
				Tomato (COTH2)					
				Sorghum CO(S030					

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Paddy	12.9.2010	27.1.2011	0.1	TRY 1	seed	350	4200	6300	-
			0.05	TRY 3	Seed	250	2300	4500	-
			0.1	ADT 43	Seed	350	4400	7000	-
Pulses									
Red gram									
Black gram									
Oilseeds									
Sunflower									
Groundnut									
Castor									
Fibers									
Spices & Plantation crops									
Floriculture									
Fruits									

Mango	Oct,2010	Jan, 2011	0.25	Salem banglora, Alphonso , Imamapasand Mallika	Grafts	1739	20000	43475	-
Sapota	Oct,2010	Jan, 2011	0.01	Co3 , PKM 1	Grafts	74	950	2220	-
Amla	Oct,2010	Jan, 2011	0.04	NA 7	Grafts	280	3500	7000	-
Vegetables									
Shade net protray nursery	2010	0.03	Tomato	Seedlings	50000	500	1500	-	
Others (specify)									

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Vermicompost	600 kg	300	2400	-
2	Microbial consortia	1000 litres	500	3000	-

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Goat (Slatted Floor Goat Unit)	Tellicherry	Breeding goat	5	15750/-	-	-

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	193	4	-
May 2010	-	-	-
June 2010	-	-	-
July 2010	-	-	-
August 2010	4	1	-

September 2010	6	2	-
October 2010	-	2	-
November 2010	1280	24	-
December 2010	1035	20	-
January 2011	160	3	-
February 2011	7	1	-
March 2011	40	2	-
Total	2522	55	-

13.F. Database management

S. No	Database target	Database created
1	District Profile	Yes
2	KVK Establishment Profile	Yes
3	OFT & FLD	On going

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

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 Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		

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	TNAU	2274				
With KVK	State Bank of India	Mallur	3953	Training Organizer	10188865273		

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 Council A/C	Closing balance if any	Remarks
1	**Production Technology – 50 ha**					
	a. Essential inputs	----	---	0.53		
	b. POL, hiring vehicle, Kisan melas, printed materials, reports, demonstration boards	----	---	0.22		Grant not received for the year 2009-10 & 2010-11
	Total			0.75		
2.	**Farm Implements – 75 ha**					
	a. New equipments			---		
	b. Contingencies			0.10		
	Total			0.10		

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	45.00	45.00	73.64
2	**Traveling allowances**	01.25	01.25	01.25
3				**Contingencies**
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	02.00	02.00	02.00
B	POL, repair of vehicles, tractor and equipments	01.60	01.60	01.60
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	01.00	01.00	01.00
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	00.40	00.40	00.40
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	01.95	01.95	01.95
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	00.90	00.90	00.90
G	Training of extension functionaries	00.25	00.25	00.25
H	Farmers Field School	00.25	00.25	00.25
I	Maintenance of buildings	00.30	00.30	00.30
J	Extension Activities	00.30	00.30	00.30
K	Establishment of Soil, Plant & Water Testing Laboratory	00.00	00.00	00.00
L	Library	00.05	00.05	00.05
TOTAL (A)		**55.25**	**55.25**	**83.89**
B. Non-Recurring Contingencies				
1	**Works**	--	--	--
2	**Equipments including SWTL & Furniture**			
a.	Furniture and furnishing	02.00	02.00	02.00
b.	EPABX System	00.50	00.50	00.50
c	Generator	01.00	01.00	01.00
d	Power Tiller	01.50	01.50	01.50
e	Laser Guided Land Leveler	05.00	05.00	05.00
3	**Vehicle** (Four wheeler/Two wheeler, please specify)	--	--	--
4	**Library** (Purchase of assets like books & journals)	00.10	00.10	00.10
TOTAL (B)		10.10	10.10	10.10
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		**65.35**	**65.35**	**93.99**

14.D. Status of revolving fund (Rs. in lakh) for the three years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2008 to March 2009	04.98	06.14	02.72	08.40
April 2009 to March 2010	08.40	07.32	08.63	07.08
April 2010 to March 2011	07.08	03.05	06.45	03.69

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.R.Jegathambal	Associate Professor (Seed Science & Technology)	E-Extension training	TNAU, Coimbatore	16.05.10 to17.05.10
Dr. S. Manickam	Programme Coordinator Associate Professor (Agronomy)	exploring the emergence and spread of system of rice intensification in India	Hosur	11.8.2010 to 13.8.2010
Dr. P. Chitra	Assistant Professor (Animal Science)	Fodder Production and Grass land Management	IGFRI, Jhansi, Uttar Pradesh	24.09.2010 to 04.10.2010
Dr.K.Sara Parwin Banu	Associate Professor (Environmental Science)	Innovative extension models for sustainable agriculture	IARI, New Delhi	04.01.11 to 24.01.11
Dr.R.Jegathambal	Associate Professor Seed Science & Technology)	Productivity enhancement in drylands through diversified farming options	Coimbatore	27.01.11 to 16.02.11
Dr.K.Sara Parwin Banu	Associate Professor (Environmental Science)	Advances in soil fertility and soil health management	Coimbatore	22.03.2011to 23.03.2011
Dr. P. S. Kavitha	Assistant Professor (Horticulture)	Protected cultivation in Horticultural crops	Coimbatore	29.03.2011to 30.03.2011

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

SUMMARY FOR 2010-11

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Integrated Nutrient Management	Sugarcane	Assessment of foliar spray in Sugarcane for higher productivity	5
	Mango	Assessment of foliar spray in mango	5
Integrated Crop Management	Red gram	Evaluation of planting method in redgram	5
Weed Management	Paddy	Assessment of Suitable Weeders in SRI	5
		Total	**20**

Summary of technologies assessed under livestock

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials
Feed and Fodder management	Dairy	Assessment of mixed fodder model	5
Production and Management	Dairy	Management of infertility in cross breed cows	5
		Total	10

. II. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops

Thematic areas	Crop	Name of the technology refined	No. of trials
Integrated Nutrient Management	Tapioca	Refinement of INM practices in Tapioca	3
		Total	3

III. FRONTLINE DEMONSTRATION

Frontline demonstration on Cotton

Crop	Thematic Area	Name of the technology demonstrated	No. of KVKs	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cotton	Crop management	Popularisation of ICMP in Cotton		37	15	Crop raised during first week of March 2011. Now crop is in vegetative stage.										

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

** BCR= GROSS RETURN/GROSS COST

Other crops

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cereals	Crop management	Popularization of paddy var CORH3 (2006) through System of Rice Intensification (SRI) cultivation		8	3	100.9	70.00	29.6	-	-	24000	1115750	91750	4.82	23000	90000	67000	3.91
	Crop managem	Popularisation of problem soil crop		6	3	44	31 (check	20.97	-	-	34000	93750	59750	2.76	34000	77500	43000	2.28

	ent	management in paddy					- CO43)											
Millets	Crop management	Popularisation of Maize maxim to realize higher productivity		8	3	62	48	29	-	-	25000	62000	37000	2.5	21000	48000	27000	2.2
Pulses	Crop Improvement	Popularisation of seed production in Redgram		4	2	12.3	9.8	24	-	-	25000	91020	86020	3.6	18500	29400	10900	1.6
Vegetables	Crop Protection	Popularization of management techniques for basal rot of Onion		10	5	141	84	67.9	-	-	32100	112000	79,900	3.49	26300	61300	35000	2.33
	Crop Improvement	Popularization of tomato hybrid COTH 2		6	2	735	510	44.11	-	-	153250	514500	361250	3.35	139700	357000	217300	2.55
	Crop Protection	Popularisation of IPM practices for mealy bug in Tapioca		8	3	280	202	38.6	-	-	30600	72500	41900	2.37	28000	50400	22400	1.8
Fruit	ICMP	Integrated Crop Management Practices in banana		5	1	Banana started shooting now only												
Spices and condiments	ICMP	Integrated Crop Management Practices for Turmeric		8	3	289	252	14.8	-	-	37300	145500	108200	3.90	30000	109200	79200	3.64

Commercial	Farm mechanisation	Popularization of mechanization in Sugarcane		5	2	1510	1130	33.63			97000	302000	205000	3.11	75000	135600	60600	1.81
Others (sericulture)	Silkworm Protection	Popularization of IPDM packages for silkworm pest and disease management		500 dfl	5	0.81	0.49	65.31			12000	21500	9500	1.79	7800	8900	1100	1.14
Animal Husbandry	Poultry	Oral pellet vaccination to control Ranikat disease		300	20	95	67	41.79	-	-	16500	63840	56460	3.86	14200	32500	18300	2.28
	Goat	Popularisation of Chaff cutter in intensive system of Goat rearing		150 goat	10	1.8 kg	1.5 kg	20.33	-	-	28500	98000	68700	3.44	31000	64000	28000	2.06
	Poultry	Popularisation of low cost incubator in backyard poultry farming		250 birds	10	79	52	46.29	---	-	28500	49200	20700	1.72	17500	24200	6700	1.38
	Goat	Improving the productivity of Goat		150 goat	10	1.85kg	1.5kg	23.33	-	-	28000	93000	65000	3.32	21000	62000	41000	2.95
	Total																	

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

** BCR= GROSS RETURN/GROSS COST

IV. Training Programme

Farmers' Training including sponsored training programmes (On campus)

Area of training	No. of	No. of Participants								
	Courses	General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management	7	205	132	337	23	12	35	228	144	372
Resource Conservation Technologies	3	58	25	83	12	8	20	60	33	93
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	2	63	25	88	16	9	25	79	34	113
Integrated Farming	12	282	172	454	62	41	103	344	213	557
Micro Irrigation/Irrigation	26	720	69	789	302	74	376	1022	143	1165
Seed production	24	462	218	680	135	28	163	597	246	843
Nursery management	15	296	165	461	86	46	132	382	211	593
Integrated Crop Management	5	108	52	160	35	17	52	143	69	212
Soil and Water Conservation	23	526	365	891	148	129	277	674	494	1168
Integrated Nutrient Management	2	48	19	67	8	0	8	56	27	83
Production of organic inputs	15	268	136	304	63	28	91	331	164	495
Others (pl.specify)	9	168	86	254	19	5	24	187	91	278
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	10	206	117	323	42	29	71	248	146	394
Off-season vegetables	16	476	265	741	123	86	209	599	351	950
Nursery raising	18	520	386	906	238	175	413	758	561	1319
Exotic vegetables	2	53	36	89	10	7	17	63	43	106

Export potential vegetables	12	342	225	567	96	76	172	438	301	739
Grading and standardization	15	432	228	660	134	89	223	566	317	883
Protective cultivation	2	46	16	62	11	2	13	57	18	75
Others (pl.specify)	5	62	10	72	15	9	24	77	19	96
b) Fruits										
Training and Pruning	8	248	116	364	65	32	97	313	148	461
Layout and Management of Orchards	15	462	245	707	115	95	210	577	340	917
Cultivation of Fruit	15	518	320	838	102	86	188	620	406	1026
Management of young plants/orchards	2	68	42	110	12	9	21	80	51	131
Rejuvenation of old orchards	11	376	240	616	108	92	200	484	332	816
Export potential fruits	5	125	42	167	45	15	60	167	57	224
Micro irrigation systems of orchards	3	68	19	87	9	3	12	77	22	99
Plant propagation techniques	7	55	18	73	12	7	19	67	25	92
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management	12	275	153	428	138	85	223	413	238	651
Management of potted plants	1	38	13	51	8	2	10	46	15	61
Export potential of ornamental plants	8	246	125	371	95	76	171	341	201	542
Propagation techniques of Ornamental Plants	8	235	124	359	75	32	107	310	156	466
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	2	42	26	68	19	12	31	61	38	99
Processing and value addition	5	210	86	296	28	8	36	238	94	332
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Production and Management technology	3	55	28	83	12	4	16	67	32	99
Processing and value addition	4	128	95	223	30	15	45	158	110	268
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0

f) Spices										
Production and Management technology	5	402	186	588	92	52	144	494	238	732
Processing and value addition	4	105	78	183	32	15	47	137	93	230
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management	3	123	52	175	92	53	145	215	105	320
Production and management technology	2	35	14	49	9	2	11	44	16	60
Post harvest technology and value addition	3	120	45	165	22	10	32	142	55	197
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Soil Health and Fertility Management										
Soil fertility management	14	320	145	465	125	32	157	445	177	622
Integrated water management	8	315	142	457	98	63	151	413	205	608
Integrated nutrient management	10	302	110	412	78	32	110	380	142	522
Production and use of organic inputs	2	35	12	47	8	2	10	43	14	57
Management of Problematic soils	5	98	46	144	55	28	83	153	74	227
Micro nutrient deficiency in crops	15	560	145	705	178	62	240	738	207	945
Nutrient use efficiency	4	102	48	150	18	7	25	120	55	175
Balanced use of fertilizers	8	281	92	373	60	15	75	341	107	448
Soil and water testing	17	325	115	440	85	20	105	410	135	545
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Livestock Production and Management										
Dairy Management	10	106	23	129	12	4	16	118	27	145
Poultry Management	7	126	96	222	36	12	48	162	108	270
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	12	312	118	430	67	42	109	379	160	539
Animal Disease Management	10	310	153	463	53	22	75	363	175	538
Feed and Fodder technology	15	392	142	534	115	87	202	507	229	736

Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	6	126	42	168	26	17	43	152	59	211
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	4	25	96	121	15	36	51	40	132	172
Gender mainstreaming through SHGs	2	40	15	55	2	0	2	42	15	47
Storage loss minimization techniques	3	79	32	111	10	0	10	89	32	121
Value addition	2	256	96	352	35	16	51	291	112	403
Women empowerment	5	0	95	95	0	24	24	0	119	119
Location specific drudgery production	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Agril. Engineering										
Farm machinery and its maintenance	8	359	162	521	142	83	225	501	245	746
Installation and maintenance of micro irrigation systems	6	218	126	344	115	45	160	333	171	504
Use of Plastics in farming practices	6	138	76	214	35	12	47	137	72	209
Production of small tools and implements	4	125	85	210	68	38	106	193	123	316
Repair and maintenance of farm machinery and implements	9	268	142	410	128	73	201	396	215	611
Small scale processing and value addition	4	140	75	215	80	25	105	220	100	320
Post Harvest Technology	6	125	19	144	13	6	19	138	25	163
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0

Plant Protection										
Integrated Pest Management	12	152	96	248	36	15	51	188	111	299
Integrated Disease Management	6	145	82	227	28	16	44	201	98	299
Bio-control of pests and diseases	4	63	18	81	15	6	21	78	24	102
Production of bio control agents and bio pesticides	5	135	42	177	38	24	62	173	66	239
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site										
Seed Production	5	116	35	151	85	31	116	201	66	267
Planting material production	8	128	62	190	53	26	79	181	88	269
Bio-agents production	3	68	35	103	16	9	25	84	44	128
Bio-pesticides production	1	25	5	30	3	1	4	28	6	31
Bio-fertilizer production	2	40	8	48	9	5	14	49	13	62
Vermi-compost production	3	66	28	94	49	25	74	115	53	168

Organic manures production	9	305	112	417	68	42	110	373	154	527
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	2	41	16	57	12	6	18	53	22	75
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	10	225	108	333	96	35	131			
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom production	7	205	92	297	85	42	127	290	134	424
Apiculture	3	72	27	99	28	12	40	100	39	139
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	2	46	15	61	5	2	7	51	17	68
Formation and Management of SHGs	3	0	60	60	0	10	10	0	70	70
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	5	76	21	97	14	8	22	90	29	119
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (Pl. specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**640**	**16800**	**8137**	**24837**	**4958**	**2701**	**7649**	**21740**	**10830**	**32550**

Farmers' Training including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management	5	115	105	220	25	12	37	140	117	257
Resource Conservation Technologies	1	25	5	30	2	1	3	27	6	33
Cropping Systems	1	32	12	44	2	5	7	34	17	51
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	2	53	21	74	9	5	14	62	26	88
Micro Irrigation/Irrigation	21	565	153	718	102	35	137	667	188	855
Seed production	5	75	18	93	8	3	11	83	21	104
Nursery management	3	65	23	88	12	9	21	77	32	109
Integrated Crop Management	15	265	136	401	52	12	64	317	148	465
Soil and Water Conservation	2	208	82	290	35	10	45	243	92	335
Integrated Nutrient Management	5	135	96	231	45	15	60	180	111	291
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (IPM)	10	225	152	377	65	21	86	290	173	463
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	2	52	25	77	5	3	8	57	28	85
Off-season vegetables	3	53	22	75	12	5	17	65	27	92
Nursery raising	3	75	22	97	39	12	51	114	34	148
Exotic vegetables	2	45	26	71	12	3	15	57	29	86
Export potential vegetables	4	125	35	160	21	9	30	146	44	190
Grading and standardization	2	52	13	65	15	8	23	67	21	88
Protective cultivation	2	40	12	52	5	2	7	45	14	59
Others (IPM in vegetables)	3	70	15	85	18	3	21	88	18	106

b) Fruits										
Training and Pruning	5	96	48	144	25	15	40	121	63	184
Layout and Management of Orchards	5	86	45	131	25	9	34	111	54	165
Cultivation of Fruit	6	183	125	308	45	22	67	228	147	375
Management of young plants/orchards	3	45	12	57	5	2	7	50	14	64
Rejuvenation of old orchards	3	75	40	115	15	10	25	90	50	140
Export potential fruits	4	59	25	84	15	12	27	74	37	111
Micro irrigation systems of orchards	3	58	25	83	12	8	20	70	33	103
Plant propagation techniques	5	108	53	161	15	8	23	123	61	184
Others (IPM in fruits)	5	145	52	197	25	12	37	170	64	234
c) Ornamental Plants										
Nursery Management	5	99	48	147	35	22	57	134	70	204
Management of potted plants	1	22	5	27	5	2	7	27	7	34
Export potential of ornamental plants	2	51	12	63	8	2	10	59	14	73
Propagation techniques of Ornamental Plants	4	82	30	112	36	20	56	118	50	168
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	2	62	18	80	20	8	28	82	26	108
Processing and value addition	1	25	12	37	5	3	8	30	15	45
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops				0			0	0	0	0
Production and Management technology	2	85	42	127	35	18	53	120	60	180
Processing and value addition	1	25	12	37	5	1	6	30	13	43
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
f) Spices				0			0	0	0	0
Production and Management technology	3	98	25	123	25	12	37	123	37	160
Processing and value addition	2	68	15	83	12	8	20	80	23	103
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0

g) Medicinal and Aromatic Plants				0			0	0	0	0
Nursery management	5	105	75	180	56	25	81	161	100	261
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Soil Health and Fertility Management										
Soil fertility management	8	305	65	370	92	56	148	397	121	518
Integrated water management	3	105	36	141	20	12	32	125	48	173
Integrated nutrient management	6	165	102	267	68	41	109	233	143	376
Production and use of organic inputs	15	365	125	490	115	65	180	480	190	670
Management of Problematic soils	2	26	12	38	5	3	8	31	15	46
Micro nutrient deficiency in crops	5	263	78	341	98	25	123	361	103	464
Nutrient use efficiency	2	95	18	113	30	8	38	125	26	151
Balanced use of fertilizers	3	105	20	125	26	5	31	131	25	156
Soil and water testing	8	265	98	363	75	25	100	340	123	463
Others (Foliar nutrition to crops)	6	253	98	351	78	25	103	331	123	454
Livestock Production and Management										
Dairy Management	4	85	28	113	15	8	23	100	36	136
Poultry Management	8	36	12	48	25	15	40	61	27	88
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	6	75	25	100	22	13	35	97	38	135
Animal Disease Management	10	125	35	160	28	16	44	153	51	204
Feed and Fodder technology	10	125	32	157	29	18	47	154	50	204
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Home Science/Women empowerment										
Household food security by kitchen gardening and	0	0	0	0	0	0	0	0	0	0

nutrition gardening										
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	2	32	12	44	5	2	7	37	14	51
Gender mainstreaming through SHGs	4	12	65	77	2	15	17	14	80	94
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0
Value addition	3	0	45	45	0	15	15	0	60	60
Women empowerment	4	48	13	61	10	2	12	58	15	73
Location specific drudgery production	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Agril. Engineering										
Farm machinery and its maintenance	10	398	154	552	98	35	133	496	189	685
Installation and maintenance of micro irrigation systems	7	168	85	253	48	18	66	216	103	319
Use of Plastics in farming practices	5	125	56	181	25	10	35	150	66	216
Production of small tools and implements	6	145	103	248	52	35	87	197	138	335
Repair and maintenance of farm machinery and implements	5	45	12	57	9	5	14	54	17	71
Small scale processing and value addition	3	225	105	330	45	18	63	270	123	393
Post Harvest Technology	7	85	42	127	28	19	47	113	61	174
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Plant Protection										
Integrated Pest Management	15	245	69	314	62	38	100	307	107	414
Integrated Disease Management	8	165	42	207	53	25	78	218	67	285

Bio-control of pests and diseases	10	201	89	290	25	18	43	226	107	333
Production of bio control agents and bio pesticides	2	52	12	64	5	3	8	57	15	72
Others (Onion IPM)	2	45	22	67	18	10	28	63	32	95
Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site										
Seed Production	19	358	165	523	25	25	50	383	190	573
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	2	52	14	66	12	8	20	64	22	86
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	10	235	48	283	87	35	122	322	83	405
Organic manures production	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0

Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	5	45	25	70	15	12	27	60	37	97
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom production	5	65	12	77	21	16	37	86	28	114
Apiculture	4	65	16	81	19	5	24	84	21	105
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Capacity Building and Group Dynamics										
Leadership development	5	45	23	68	16	12	28	61	35	96
Group dynamics	6	96	35	131	25	14	39	121	49	170
Formation and Management of SHGs	5	12	46	58	5	25	30	17	71	88
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	8	105	98	203	25	19	44	130	117	247
Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (Pl. specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**259**	**6698**	**2462**	**9160**	**1802**	**756**	**2558**	**8490**	**3218**	**11708**

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

Area of training	No. of	No. of Participants								
	Courses	General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	5	168	86	254	68	56	124	236	142	378
Training and pruning of orchards	5	105	62	167	46	15	61	151	77	228
Protected cultivation of vegetable crops	4	82	56	138	48	40	88	130	96	226
Commercial fruit production	5	78	35	113	25	19	44	103	54	157
Integrated farming	2	48	25	73	15	9	24	63	34	97
Seed production	6	168	105	273	68	35	103	236	140	376
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Planting material production	2	48	15	63	5	3	8	53	18	71
Vermi-culture	6	98	25	123	25	21	46	123	46	169
Mushroom Production	10	168	69	237	62	28	90	230	97	327
Bee-keeping	2	45	12	57	25	8	33	70	20	90
Sericulture	2	96	61	157	49	32	81	145	93	238
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Value addition	5	198	68	266	45	22	67	243	90	333
Small scale processing	2	52	12	64	15	8	23	67	20	87
Post Harvest Technology	3	106	52	158	53	38	91	159	90	249
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	6	182	60	242	25	15	40	207	75	282
Sheep and goat rearing	8	215	72	287	39	25	64	254	97	351
Quail farming	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0

Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	5	85	42	127	22	9	31	107	51	158
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**54**	**1377**	**703**	**2080**	**523**	**342**	**867**	**1940**	**1045**	**2947**

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

Area of training	**No. of**	**No. of Participants**								
	Courses	**General**			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Nursery Management of Horticulture crops	6	185	115	300	68	35	103	253	150	403
Training and pruning of orchards	4	125	48	173	56	35	91	181	83	264
Protected cultivation of vegetable crops	5	158	78	236	65	42	107	223	120	343
Commercial fruit production	5	156	102	258	68	49	117	224	151	375
Integrated farming	0	0	0	0	0	0	0	0	0	0
Seed production	10	168	53	221	25	10	35	193	63	256
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	5	95	45	140	22	12	34	117	57	174
Mushroom Production	4	123	65	188	82	48	130	205	113	318

Bee-keeping	3	65	19	84	15	6	21	80	25	105
Sericulture	4	186	95	281	28	12	40	214	107	321
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Value addition	3	168	65	233	15	10	25	183	75	258
Small scale processing	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	8	98	52	150	46	29	75	144	81	225
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	5	95	35	130	29	15	44	124	50	174
Sheep and goat rearing	6	152	82	234	25	9	34	177	91	268
Quail farming	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	2	36	12	48	5	0	5	41	12	53
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**43**	**1139**	**585**	**1724**	**570**	**346**	**916**	**1709**	**931**	**2640**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	15	315	152	467	82	45	127	397	197	594
Integrated Pest Management	16	389	268	657	156	98	254	545	366	911
Integrated Nutrient management	18	298	146	444	95	35	130	393	181	574
Rejuvenation of old orchards	5	142	52	194	28	15	43	170	67	237
Protected cultivation technology	4	76	25	101	15	12	27	91	37	128
Production and use of organic inputs	6	98	42	140	32	22	54	130	64	194
Care and maintenance of farm machinery and implements	6	125	44	169	26	18	44	151	62	213
Gender mainstreaming through SHGs	3	52	15	67	5	3	8	57	18	75
Formation and Management of SHGs	2	65	25	90	12	8	20	77	33	110
Women and Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	10	186	25	211	25	12	37	211	37	248
Information networking among farmers	20	265	168	433	69	52	121	334	220	554
Capacity building for ICT application	15	215	125	340	95	36	131	310	161	471
Management in farm animals	6	128	98	226	25	16	41	153	114	267
Livestock feed and fodder production	5	165	105	270	45	18	63	210	123	333
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (Silpaulin Vermi bag Production	2	48	1	49	3	0	3	51	1	52
Total	**141**	**2247**	**1290**	3537	**747**	**397**	1144	2994	1687	4681

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total

Productivity enhancement in field crops	10	265	96	361	65	26	91	330	122	452
Integrated Pest Management	8	325	165	490	94	52	146	419	217	636
Integrated Nutrient management	5	98	52	150	25	15	40	123	67	190
Rejuvenation of old orchards	8	195	65	260	85	36	121	280	101	381
Protected cultivation technology	4	89	43	132	66	23	89	155	66	221
Production and use of organic inputs	5	125	58	183	56	21	77	181	79	260
Care and maintenance of farm machinery and implements	5	69	35	104	26	19	45	95	54	149
Gender mainstreaming through SHGs	3	46	26	72	15	12	27	61	38	99
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	6	98	25	123	29	15	44	127	40	167
Information networking among farmers	8	135	65	200	38	25	63	173	90	263
Capacity building for ICT application	6	236	50	286	35	15	50	271	65	336
Management in farm animals	5	165	65	230	25	8	33	190	73	263
Livestock feed and fodder production	8	125	53	178	29	15	44	154	68	222
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
Total	**44**	**1295**	**493**	1788	**508**	**211**	719	1803	704	2507

Sponsored training programmes

S.No.	**Area of training**	**No. of Courses**	**No. of Participants**								
			General			**SC/ST**			**Grand Total**		
			Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
1	**Crop production and management**	**47**	**1014**	**487**	**1501**	**270**	**192**	**462**	**1284**	**679**	**1963**
1.a	Increasing production and productivity of crops	26	562	315	877	165	96	261	727	411	1138

1.b	Commercial production of vegetables	21	452	172	624	105	96	201	557	268	825
2	**Production and value addition**	**23**	**583**	**212**	**795**	**110**	**42**	**152**	**693**	**254**	**947**
102	Fruit Plants	15	312	125	437	65	25	90	377	150	527
2.b	Ornamental plants	6	205	75	280	35	15	50	240	90	330
2.c	Spices crops	2	66	12	78	10	2	12	76	14	90
3	**Soil health and fertility management**	**6**	**135**	**65**	**200**	**35**	**12**	**47**	**170**	**77**	**247**
4	**Production of Inputs at site**	**5**	**135**	**52**	**187**	**62**	**25**	**87**	**197**	**77**	**274**
5	**Methods of protective cultivation**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6	**Others (Orgonic Farming)**	**2**	**53**	**25**	**78**	**10**	**5**	**15**	**63**	**30**	**93**
7	**Post harvest technology and value addition**	**18**	**228**	**152**	**380**	**75**	**120**	**195**	**303**	**272**	**575**
7.a	Processing and value addition	18	228	152	380	75	120	195	303	272	575
7.b	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
8	**Farm machinery**	**6**	**95**	**12**	**107**	**49**	**0**	**49**	**144**	**12**	**156**
8.a	Farm machinery, tools and implements	6	95	12	107	49	0	49	144	12	156
8.b	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
9	**Livestock and fisheries**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
10	**Livestock production and management**	**11**	**121**	**57**	**178**	**20**	**11**	**31**	**141**	**68**	**209**
10.a	Animal Nutrition Management	5	65	25	90	0	0	0	65	25	90
10.b	Animal Disease Management	6	56	32	88	20	11	31	76	43	119
10.c	Fisheries Nutrition	0	0	0	0	0	0	0	0	0	0
10.d	Fisheries Management	0	0	0	0	0	0	0	0	0	0
10.e	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
11	**Home Science**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
11.a	Household nutritional security	0	0	0	0	0	0	0	0	0	0
11.b	Economic empowerment of women		0	0	0	0	0	0	0	0	0
11.c	Drudgery reduction of women	0	0	0	0	0	0	0	0	0	0
11.d	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
12	**Agricultural Extension**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12.a	Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0	0

12.b	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
	Total	**106**	**2816**	**1221**	**4037**	**918**	**625**	**1543**	**3734**	**1846**	**5580**

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

S.No	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**	**15**	**173**	**61**	**234**	**47**	**26**	**73**	**220**	**87**	**307**
1.a.	Commercial floriculture	0	0	0	0	0	0	0	0	0	0
1.b.	Commercial fruit production	5	56	15	71	9	5	14	65	20	85
1.c.	Commercial vegetable production	6	65	25	90	22	16	38	87	41	128
1.d.	Integrated crop management	0	0	0	0	0	0	0	0	0	0
1.e	Organic farming	4	52	21	73	16	5	21	68	26	94
1.f.	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
2	**Post harvest technology and value addition**	**5**	**73**	**35**	**108**	**25**	**16**	**41**	**98**	**51**	**149**
2.a.	Value addition	5	73	35	108	0	0	0	73	35	108
2.b.	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
3	**Livestock and fisheries**	**7**	**86**	**17**	**103**	**16**	**3**	**19**	**102**	**20**	**122**
3.a.	Dairy farming	3	36	3	39	6	1	7	42	4	46
3.b.	Composite fish culture	0	0	0	0	0	0	0	0	0	0
3.c.	Sheep and goat rearing	3	32	12	44	8	2	10	40	14	54
3.d.	Piggery	0	0	0	0	0	0	0	0	0	0
3.e.	Poultry farming	1	18	2	20	2	0	2	20	2	22
3.f.	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
4	**Income generation activities**	**22**	**174**	**64**	**238**	**53**	**15**	**68**	**227**	**79**	**306**
4.a.	Vermi-composting	2	32	15	47	12	5	17	44	20	64
4.b	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	4	32	8	40	9	2	11	41	10	51
4.c.	Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
4.d	Rural Crafts	0	0	0	0	0	0	0	0	0	0

4.e.	Seed production	2	22	7	29	5	1	6	27	8	35
4.f.	Sericulture	0	0	0	0	0	0	0	0	0	0
4.g	Mushroom cultivation	7	46	22	68	12	3	15	58	25	83
4.h	Nursery, grafting etc.	0	0	0	0	0	0	0	0	0	0
4.i.	Tailoring, stitching, embroidery, dying etc.	0	0	0	0	0	0	0	0	0	0
4.j.	Agril. para-workers, para-vet training	0	0	0	0	0	0	0	0	0	0
4.k	Others (Honey bee Keeping)	7	42	12	54	15	4	19	57	16	73
5	**Agricultural Extension**	**5**	**96**	**26**	**122**	**15**	**12**	**27**	**111**	**38**	**149**
5.a.	Capacity building and group dynamics	5	96	26	122	15	12	27	111	38	149
5.b	Others (pl.specify)	0	0	0	0	0	0	0	0	0	0
	Grand Total	**33**	**268**	**87**	**355**	**71**	**18**	**89**	**339**	**105**	**444**

V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	1955	1845	642	2487
Diagnostic visits	496	1984	211	2195
Field Day	32	1950	221	2171
Group discussions	62	2869	439	3308
Kisan Ghosthi	1	750	100	850
Film Show	14	834	165	999
Self -help groups	0	0	0	0
Kisan Mela	1	934	75	1009
Exhibition	42	4584	314	4898
Scientists' visit to farmers field	965	4509	370	4879
Plant/animal health camps	26	1168	335	1503
Farm Science Club	8	554	0	554
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar	16	1498	138	1636
workshop	25	791	369	1160
Method Demonstrations	145	7258	467	7725
Celebration of important days	9	Mass Coverage		
Special day celebration	2	Mass Coverage		
Exposure visits	48	913	62	975
Others (pl.specify)	-	-	-	-
Total	**3827**	**28391**	**3908**	**36349**

Details of other extension programmes

Particulars		**Number**
Electronic Media	KVK activities and Demo units TN IAMWARM swedhanathi sub basin SRI success stories	2
Extension Literature	Folders	2
	Books	10
	Booklets	5
News Letter	October 2010	1
News paper coverage	Message on creating Awareness ,Technology Dissemination, Training/ Demonstration, Sale of Seeds and Planting Materials and Market Information	45
Technical Articles	Research papers	3
Technical Bulletins	Improved Turmeric production technologies	1
Technical Reports	Action plan 2010-11 , FLD Cotton Action Plan 2010-11, Report on success stories, IAMWARM reports,	6
Radio Talks	AIR Trichi –Turmeric cultivation, pest and disease management and Livestock management	3
TV Talks	Makkal TV- Cocoa cultivation technology	1
Animal health amps (Number of animals treated)	-	-
Others (pl.specify)	-	-
Total		**78**

VI. PRODUCTION OF SEED/PLANTING MATERIAL

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)	Paddy	TRY 1		4.8	9120	20
Oilseeds		TRY 3		2.7	5130	12
Pulses		ADT 43		3.5	7700	15
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds	Fodder sorghum	COFS 29		0.20	4000	20
	Hedge Lucerne	-	-	0.1	Free of cost	20
Fiber crops						
Forest Species						
Others (specify)						
Total						

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						
Vegetable seedlings						
	Tomato	-	COTH 2	50000	1500	3
Fruits	Mango	Salem Banglora	-	712	17800	16
		Alphonso	-	593	14825	22
		Imampasand	-	742	18550	28
	Sapota	PKM 1 & CO3	-	74	2220	27
	Amla	NA 7	-	280	7000	35
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Fodder crop saplings	Cumbu Napier		CO4	20000	8000	10
	Guinea grass	CoG3		4000	1600	5
Forest Species						
Others(specify)						
Total				76401	71495	146

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg/ Nos.	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents	Papaya mealy bug parasitoids *Acerophagus papayae*	32500 nos	Given to the farmers at free of cost	156
Others (specify)				
	Vermicompost	600 kg	2400	20
	Microbial consortia	1000 litres	free	30
Total				**206**

Production of livestock and related enterprise materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Desi chicken	Giriraja	250	5000	20
Japanese Quail	Namakkal 1 quail	500	2000	10
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total		**750**	**7000**	**30**

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

VIII.

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized
Soil Samples	255	145	59	6375
Water Samples	240	160	83	2400
Plant samples	-	-	-	-
Manure samples	2	1	1	50
Others (specify)	-	-	-	-
Total	497	306	143	8825

VIII. SCIENTIFIC ADVISORY COMMITTEE

Number of SACs conducted - - one on 27.01.2010

IX. NEWSLETTER

Number of issues of newsletter published - 1 1000 copies

X. RESEARCH PAPER PUBLISHED

Number of research paper published - 3

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.)**

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Farmers Field School (FFS)
Integrated pest and disease management in Onion

Locations : Kammalapatty,
No. of Farmers in FFS : 30 farmers
No. of trainings conducted in each FFS : 14 Nos.
Duration (Days) : 120 Days 14 visits were made

- ✓ Conducted 14 trainings on IPM, identification on insect pests, diseases, natural enemies Ecofriendly pest management strategies and storage pest management
- ✓ Method demonstrations on seed treatment with *Trichoderma* and soil application of bioagents
- ✓ Field diagnostic visits made and explained the pests, diseases and the symptoms of damage on paddy to the participating farmers
- ✓ Field days were conducted to show the benefit of the FFS and to share views and the experience of the farmers involved in FFS

Impact

- ✓ Management of pests viz.,onion thrips and blight, rot diseases . Onion rot controlled was 80 per cent through IPM methods
- ✓ Blast. sheath blight incidence was very low (20 per cent) due to IPM and seed treatment methods
- ✓ Seed treatment and soil application of *Trichoderma* resulted low incidence of diseases, resulted good crop stand and disease management
- ✓ Yield increase was up to 40 -60 per cent
- ✓ Farmers got practical knowledge on identification on insect pests, diseases, natural enemies and biological control in pest and disease management through the FFS

FFS on Onion IPM