

PROFORMA FOR ANNUAL REPORT 2009-10

(FOR THE PERIOD APRIL 2009 TO MARCH 2010)

KRISHI VIGYAN KENDRA (DISTRICT NAME)

PART I - GENERAL INFORMATION ABOUT THE KVK

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

KVK Address	Telephone		E mail	Web Address
Krishi Vigyan Kendra Tamilnadu Agricultural University Sikkal, Nagapattinam – 611 108.	Office 04365- 246266	FAX Nil	kvksikkal@tnau.ac.in	-

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

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

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.T.DHAMODARAN, Ph.D.,	04313-2223127	93448 86867	kvksikkal@tnau.ac.in

1.4. Year of sanction: 2004

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. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr.K.C.Gouthaman	Agronomy	M	Agronomy	Ph.D	37400-67000+10000	53440+10950	20. 5.05	Permanent	Others
2	Subject Matter Specialist	Dr.J.John Gunasekar	Associate Professor	M	Bio Energy	Ph.D.,	15600-39100+8000	26050+8000	07.08.09	Permanent	BC
3	Subject Matter Specialist	Dr.R.Revathi	Associate Professor	F	Forestry	Ph.D.,	3700-67000+9000	37400 + 9000	1.11.07	Permanent	ST
4	Subject Matter Specialist	Dr. T. Dhamodaran	Associate Professor	M	Agri.Extension	Ph.D.,	15600-39100+8000	26050 + 8000	05.08.09	Permanent	SC
5	Subject Matter Specialist	Dr.T. Elaiyabharathi	Assistant Professor	M	Agri.Entomology	Ph.D.,	15600-39100+8000	18850+6000	30.12.09	Temporary	BC
6	Subject Matter Specialist	Dr. G. Malathi	Assistant Professor	F	Horticulture	Ph.D.,	15600-39100+8000	18850+6000	31.12.09	Temporary	MBC
7	Subject Matter Specialist	Dr.K. Sivakumar	Assistant Professor	M	Soil Science	Ph.D.,	15600-39100+8000	18850+6000	12.01.10	Temporary	BC
8	Programme Assistant (Lab Tech.)/T-4	Th.V. GnanaBharathi	Programme Asst.	M	Technical	B.Sc (Agri)	9300-34800+4400	11130 + 4400	05.06.07	Temporary	SC
9	Programme Assistant (Computer)/T-4	Th. R.S. Swamiappan	Programme Asst.	M	Computer	MCA	9300-34800+4400	11130 + 4400	04.06.07	Temporary	BC
10	Programme Assistant / Farm Manager	Th.R.Vedharethinam	Farm Manager	M	Farm Manager	M.Sc (Ag) Agronomy	9300-34800+4400	10670 + 4400	8.12.08	Temporary	MBC
11	Assistant	Th. Saravanan	Assistant	M	Office	B. Com	5200-20200+2400	9100 + 2400	21.04.09	Permanent	MBC

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

S. No.	Item	Area (ha)
1	Under Buildings	2.40
2.	Under Demonstration Units	3.60
3.	Under Crops	15.40
4.	Orchard/Agro-forestry	1.20
5.	Others	22.60

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	-	548m ²	41.65	Feb.2006		Completed
2.	Farmers Hostel	ICAR	-	300m ²	26.38	-		Completed
3.	Staff Quarters							
	1	ICAR	-	400m ²	31.30	-		Completed
	2							
	3							
	4							
	5							
	6							
4.	Demonstration Units							
	1	ICAR	-	-	2.00	-	-	-
	2	RSVY Agri.	-	-	15.00	2007	5000 m ²	In progress
	3							
	4							
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	Ag.Eng. Nagai (Subsidy)	Aug.07	2100 m ²	8000.00	-	-	Completed
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-
9								
10								

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Four Wheeler Bolero Jeep	2004	4,88,210/-	73000	Good Condition
Two Wheeler (TVS – star city)	2006	39,641/-	32500	Good Condition
Two Wheeler (Suzuki Access 125)	2009	49651/-	1000	Good Condition

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Tractor (TN-51-C-1924)	2004	3,47,607	Good
Rotovator	2004	68,500	Good
Cultivator	2004	14,645	Good
Cage Wheel	2004	11,684	Good
Leveler	2004	8,922	Good
Digital Camera	2006	19,950	Good
Computer with Accessories	2005	75,000	Good
Xerox Machine	2005	73,968	Good
Flow through paddy thresher	2006	50,000	Good
Agro Shredder	2006	25,605	Good
Laminar air flow chamber	2007	37,856	Good
Autoclave-vertical	2007	33,560	Good
Digital pH, meter	2007	14,850	Good
Digital electrical balance	2007	18,150	Good
Computer-Desktop – 2Nos.	2007	93,000	Good
Computer (Laptop – Compaq)	2007	49,400	Good
LCD Projector – 2 Nos.	2007	1,07,000	Good
Laser printer (Samsung)	2008	4925	Good
Fax cum printer	2009	14400	Good

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

Sl.No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.	-	-	-	-	-
2.	-	-	-	-	-

PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
	Rice based farming system is followed in this district
1.	Rice – Rice – Rice fallow Pulse
2.	Rice – Rice fallow Pulses/Cotton/Gingelly
3.	Rice – Rice – Groundnut
4.	Rice – Rice – Gingelly
5.	Rice – Rice – Sugarcane (3 years rotation)

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

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

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

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Clay loam	-	0.98
2.	Clay sandy loam	-	0.55
3.	Sandy soil	-	0.35
		Total	1.88

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

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
1.	Paddy			
	Kuruvai	25189.115		
	Samba	128825.815		
	Thaladi			
	TOTAL	154014.93		
2.	Millets	5.0		
3.	Pulses			
	Blackgram	64860.056		
	Greengram	30768.330		
	TOTAL	95633.386		
4.	Sugarcane			
	Ratoon	3707.680		
	Planted	2734.935		
	Total	6442.615		
5.	Cotton	1269.150		
6.	Oilseeds			
	Groundnut	811.2		
	Gingelly	4451.365		
	Soyabean	24.0		
	Total	5286.565		
7.	Oilpalm	583.670		
8.	Coconut	4240.730		

Source;JDA ,Nagapattinam

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April 2009	27			
May 2009	19.35			
June 2009	0			
July 2009	0			
August 2009	105.24			
September 2009	0			
October 2009				
November 2009				
December 2009				
January 2009				
February 2009				
March 2009				

Source: JDA ,Nagapattinam

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

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	336044		
<i>Indigenous</i>	86060		
Buffalo			
<i>Crossbred</i>	17102		
<i>Indigenous</i>	39264		
Sheep			
<i>Crossbred</i>	9834		
<i>Indigenous</i>	23220		
Goats			
<i>Crossbred</i>	107719		
<i>Indigenous</i>	322205		
Pigs			
<i>Crossbred</i>	818		
<i>Indigenous</i>	2598		
Rabbits			
	1377		
Poultry			
Hens			
<i>Desi</i>	264164		
<i>Improved</i>	35894		
Ducks	12712		
Turkey and others	775		
Fish			
<i>Marine</i>		61479 tonnes	
<i>Inland</i>		7120 tonnes	2.0t/ha
Prawn			
Scampi			
Shrimp			

Source: Joint Director of Animal husbandry, Nagapattinam

Details of Operational area / Villages

Sl. No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Nagapattinam	1. Nagapattinam	North Poigainallur., South Poigainallur Palpannaichery		Rice-Rice-Pulses Rice-Rice-Groundnut	Soil affected by Tsunami Poor yield potential Inundation of water during monsoon Labour Scarcity	Farm mechanization Organic farming Suitable saline resistant varieties
		2.Thirumarugal	Sikkal		Rice-Rice-Pulses Rice-Rice-Cotton	Poor yield potential Inundation of water during monsoon	IFS strategies Organic farming Introduction of flood tolerant var.
2.	Tirukkuvalai	3. Keezhaiyur	Thirukkuvalai Keelaiyur Thevur Palakurichi		Rice-Rice-Pulses Rice-Rice-Groundnut	Soil affected by Tsunami Low organic matter content in the soil	Organic farming Introduction of flood tolerant var.
3.	Kilvelur	4. Kilvelur	Nangudi Kilvelur Satyagudi Palakurichi Ilupur Avarani Puducherry		Rice – Rice – Pulses	Flood damages Labour Scarcity	IFS concept Organic farming Farm mechanization
4.	Vedaranyam	5. Vedaranyam	Vedaranyam Pushbahavanam Periyakuthagai vettaiakaranirrupu		Rice-Rice-Pulses Rice-Rice-Groundnut Jasmine-Crossandra-Cashew	Inundation of water during monsoon – poor drainage Low organic carbon content of soil Salinity problem	Precision farming Cashew processing unit Organic farming Suitable saline resistant varieties.

		6. Thalainayar	Thalainayar		Rice-Rice-Pulses Jasmine/Cashew/Mango/ Vegetables	Flood water damage during monsoon Low organic carbon content of soil Salinity problem	Organic farming Introduction of high value vegetables. Cashew processing unit
5.	Mayiladuthurai	7. Mayiladuthurai	Mayiladuthurai Sembanarkoil Manganallur Anaimattam		Rice-Rice-Pulses Rice-Rice-Groundnut Rice-Rice-Cotton Rice-Banana	Flood damage Low lands Labour Scarcity	IFS concept Introduction of alternate cropping system Farm mechanization
		8. Kuthalam	Kuthalam		Rice-Rice-Pulses Rice-Banana Rice-Rice-Groundnut Rice-Rice -Cotton	Flood damage Low lands	IFS concept Introduction of alternate cropping system Farm mechanization
6.	Sirkazhi	9. Sirkazhi	Agani Thirukadaiyur Sirkali Vaitheeswarankoil		Rice-Rice-Pulses Rice- Rice -Cotton Rice-Rice-Groundnut Banana - Sugarcane - Vegetables	Poor drainage Saline pockets Labour Scarcity	Precision farming in Vegetables Organic Farming Crop diversification Farm mechanization
		10. Kollidam	Kollidam		Rice-Rice-Pulses Rice- Rice -Cotton Rice-Rice-Groundnut Sugarcane, Banana & Vegetables	Poor drainage Saline pockets Labour Scarcity	Organic Farming Crop diversification Farm mechanization
7.	Sembanarkoil	11. Sembanarkoil	Poraiyar Tharangampadi		Rice-Rice-Pulses Rice-Rice-Groundnut Rice-Rice -Cotton Sugarcane & Banana	Poor drainage Saline pockets	Precision farming in Vegetables Organic Farming Crop diversification

2.7 Priority thrust areas

S. No	Thrust area
i)	Precision farming
ii)	Crop diversification
iii)	Integrated farming system
iv)	Soil and water conservation
v)	Soil health management
vi)	Farm mechanization
vii)	Agro forestry
viii)	Non crop activities
ix)	Seed production
x)	Rice fallow crops
xi)	Value addition

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
9	9	39	34	12	9	116	79

Training				Extension Activities			
3				4			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
95	74	10000	8812	110	93	10,000	8619

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	14584 kg	3000 nos	2202

Livestock (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	-	5000	3000

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		
1.	Nutrient use efficiency and productivity	Black gram	Low yield and poor nutrient use efficiency in rice fallow blackgram	Nutrient management for rice fallow pulses		1								No.	Kg
2.	Mitigating of Micro nutrient deficiency	Rice	Zn deficiency and poor Zn use efficiency	Effect of Zinc as enriched organics		1					Seeds			Zn SO4	
3.	Moisture conservation and weed control	Vegetables	Weed management and low moisture retention in coastal sandy / inland	Mulching for weed control and moisture conservation		4					Sunhemp seeds			Coir dust	400
4.	Crop diversification	Ragi	Salinity during summer	Ragi as alternate crop in summer		-					Seeds				
5.	Organic farming practices and soil health management	Vegetables	Low organic content in soils due to indiscriminate use of chemical fertilisers	Humic acid and vermiwash on growth and yield of vegetables like chillies/tomato.		-					Seeds			Panchakavya Vermiwash Humic acid	
6.	Sustainable production	Rice	Viability of spores in talc/peat formulation and hence utility is lost when used after months	Effect of liquid biofertilizers in maximizing yield		1								Biofertilizers in liquid and talc formulation	
7.	Additional income	Vegetables	Low returns from single crop and less utilization of pandal area	Pole beans mixed with gourds and lablab in pandal		1					Seeds				
8.	Eco friendly IPM strategies for control of fruit borer	Vegetables	Fruit borer menace is high and hence yield loss	Bio intensive management of fruit borer in tomato		1								NPV, pheromone traps, Btand neem products	

9.	Eco friendly IPM strategies for control of tea mosquito bug	Cashew nut	Tea mosquito bug menace reduces the yield	IPM for tea mosquito bug in cashew		-			Demo -1				Neem product and pesticides
10.	Yield maximisation	Rice	Low yield due to poor nutrient uptake		Microbial consortia for yield maximization in rice.	--							Liquid biofertilizer
11.	Farm mechanization	Rice	Labour crisis		Drum seeding of rice in lowlands to reduce labour requirement	-			Demo -1	Seeds			Herbicide
12.	Increasing milk production of milch animals	Fodder grass	Inadequate fodder		Popularization of CO 4 C/N fodder grass	--			Demo -1		Slips		
12.	Yield maximisation	Coconut	Low yield due to poor nutrient uptake		Management of micronutrient disorder in coconut to overcome shedding of buttons and malformation	--							MN mixture Coconut tonic
13.	Additional income	Black pepper	Less income from single crop		Black pepper intercrop in coconut	1			Demo -1		Rooted Cuttings		
14.	Yield maximisation	Banana	Low yield		High density planting in banana to increase unit area production.	--					Suckers		
15.	Yield maximisation	Vegetables	Low yield due to traditional method		Quality seedling production using protrays	4				Seeds			Protrays, Cocpeat, Shadenet, polysheets
16.	Improving livelihood of farmers	Turkey	Less income from single enterprise		Popularising backyard turkey for livelihood improvement	2						Female chick, Male chicks	
17.	Alternate feed for animals	Azolla	Less nutrition		Popularising azolla as feed for animals and fish	--							Azolla, polysheet, shadenet
18.	Alternate income	Sea fish			Sea fish (Sea bass - <i>Lates calcarifer</i>) culture in inland fresh water	1			Demo - 2			Fish fingerlings	

19.	IFS	Rain water harvesting	Water scarcity during summer		Rain water harvesting and management	1			Demo - 1		Vegetable seedlings			
20.	Introduction	Grain amaranth	-		Popularisation of Grain amaranth					Seeds				
21.	Yield maximisation	Groundnut	Low income		INM and IPM	2			Field day - 1				Fertilizers, pesticides	
22.	Crop management	Sesame	Low income		Improved package of practices	--				Seeds				
23.	Crop management	Blackgram	Low income		Improved package of practices	1				Seeds				

3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/enterprise	No.of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
OFT 1	Nutrient management for rice fallow pulses	TNAU	Black gram	5		1	
2.	Effect of Zinc as enriched organics	TNAU	Rice	5		1	
3.	Mulching for weed control and moisture conservation	TNAU	Vegetables	3		4	
4.	Ragi as alternate crop in summer	TNAU	Ragi	3		--	
5.	Humic acid and vermiwash on growth and yield of vegetables like chillies/tomato.	TNAU	Vegetables	3		--	
6.	Effect of liquid biofertilizers in maximizing yield	TNAU	Rice	5		1	
7.	Pole beans mixed with gourds and lablab in pandal	TNAU	Vegetables	5		1	
8.	Bio intensive management of fruit borer in tomato	TNAU	Tomato	5		1	
9.	IPM for tea mosquito bug in cashew	TNAU	Cashew	5			Demo -1
FLD							
10.	Microbial consortia for yield maximization in rice.	TNAU	Rice		10	--	Demo -1
11.	Drum seeding of rice in lowlands to reduce labour requiremenr	TNAU	Rice		10	-	Demo -1
12.	Popularization of CO 4 C/N fodder grass	TNAU	Fodder grass		10	--	

12.	Management of micronutrient disorder in coconut to overcome shedding of buttons and malformation	TNAU	Coconut		10	--	Demo -1
13.	Black pepper intercrop in coconut	TNAU	Black pepper		10	1	
14.	High density planting in banana to increase unit area production.	TNAU	Banana		5	--	
15.	Quality seedling production using portrays	TNAU	Vegetables		10	4	
16.	Popularising backyard turkey for livelihood improvement	TNAU	Turkey		2	2	
17.	Popularising azolla as feed for animals and fish	TNAU	Azolla		10	--	Demo - 2
18.	Sea fish (Sea bass - <i>Lates calcarifer</i>) culture in inland fresh water	TNAU	Sea fish		2	1	Demo - 1
19.	Rain water harvesting and management	TNAU	Rain water harvesting		2	1	
20.	Popularisation of Grain amaranth	TNAU	Grain amaranth		1		Field day - 1
21.	INM and IPM	TNAU	Groundnut		12	2	
22.	Improved package of practices	TNAU	Sesame		12	--	
23.	Improved package of practices	TNAU	Blackgram		12	1	

3. B2 contd..

OFT		FLD				Training				Others (Specify)					
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
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5								30							
5								26	4						
3								62	39						
3								--	--						
3								--	--						
5								20	--						
5								20	15						
5								22	8						
5														Demo -13	
				10										Demo - 20	
				10										Demo 65	--
				10										--	
				10				26	-						

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitary	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.A4. Abstract on the number of technologies refined in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitary	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	Area (ha)
Integrated Nutrient Management	Black gram (Pulses)	Nutrient management for rice fallow pulses	5	1
	Rice	Enriched Zinc sulphate for zinc deficiency in rice	5	1
	Rice	Effect of liquid biofertilizer in maximizing yield	5	1
Varietal Evaluation	Ragi	Ragi as alternate crop in summer	3	.5
Integrated Pest Management	Tomato	Bio intensive management of fruit borer in tomato	5	.2
	Cashew	IPM for tea mosquito bug in cashew	5	1
Integrated Crop Management	Vegetable	Humic acid and vermiwash on growth and yield of vegetables like chillies /tomato	5	.1
	Vegetable (Gourds)	Pole beans mixed with bitter gourd / Snake gourd and lablab in pandal	5	.2
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management	Vegetable	Mulching for weed control and moisture conservation	3	.2
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Value addition				
Drudgery Reduction				
Storage Technique				
Mushroom cultivation				
Total			39	

4.B.2. Technologies Refined under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Area (ha)
Integrated Nutrient Management				
Varietal Evaluation				
Integrated Pest Management				
Integrated Crop Management				
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Value addition				
Drudgery Reduction				
Storage Technique				
Mushroom cultivation				
Total				

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

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

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
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

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 done / needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Black gram	Wetland-Rice fallow	Yield loss due to poor nutrient management	Nutrient management for rice fallow pulses	5	T ₁ - Without any nutrients T ₂ - Foliar application of DAP 2% T ₃ - Foliar application of MAP 1% and KCl %	Yield (q/ha)	T ₁ - 2.96 q/ha T ₂ - 3.16 q/ha T ₃ - 3.33 q/ha	Application of MAP, a water soluble fertilizer along with KCl has promising results followed by the results obtained from the application of DAP 2% alone. T ₂ had better results over T ₁ .	DAP 2% and KCl 1% spray gave higher yields, i.e.,0.37q/ha more than the normal practice which is economically viable (B:C 3.57).	-	-
Rice	Wetland	Yield loss due to Zinc deficiency	Enriched Zinc sulphate for zinc deficiency in rice	5	T ₁ - Application of ZnSO ₄ T ₂ - Application of enriched FYM with ZnSO ₄ T ₃ - Application of enriched FYM with Zn solubiliser	Yield (q/ha)	T ₁ - 50 q/ha T ₂ - 50.6 q/ha T ₃ - 52.19 q/ha	Application of enriched FYM with Zinc solubiliser recorded the highest yield followed by application of enriched FYM with ZnSO ₄ and application of ZnSO ₄ alone	Enriched FYM with Zinc solubiliser gave higher yields i.e.Rs.4140 higher net return than the normal practice and was found to be economically viable (B:C 1.81).	-	-
Vegetables	Garden land	Yield loss due to weeds and poor water holding capacity of Soil	Mulching for weed control and moisture conservation	3	1.With out mulch 2. Mulching with Paddy Straw 3. Coir dust 4. Green manure (Sun hemp) crop raising and mulching	Yield	Brinjal T ₁ - 425 q/ha T ₂ - 480 q/ha T ₃ - 485 q/ha T ₄ - 525 q/ha Bhendi T ₁ - 113 q/ha T ₂ - 130 q/ha T ₃ - 128 q/ha T ₄ - 150 q/ha	Humic acid is found highly effective in increasing growth and yield of vegetable crops like brinjal and bhendi	Use of various mulches indicated that there is moisture conservation and weed control to a considerable extent.	-	-
Ragi	Garden land	Salinity during summer/kharif.	Ragi as alternate crop in summer	5	Ragi as alternate crop in summer	Grain yield/ha	## table enclosed	Ragi is suitable as an alternate crop during summer	The farmers satisfied with the additional income from Ragi during fallow period	-	-

Vegetables	Garden land	Low yield in vegetables	Humic acid and vermiwash on growth and yield of vegetables like chillies /tomato	3	Application of Panchakavya, vermiwash and humic acid to increase yield in vegetale crops	Yield/ha, Yield/plant, BCR	Brinjal T ₁ - 455 q/ha T ₂ - 560 q/ha T ₃ - 540 q/ha T ₄ - 600 q/ha	Humic acid application is highly effective in increasing growth and yield of brinjal	Application of humic acid in vegetable cultivation resulted in increasing the yield	-	-
Rice	Wetland	Viability of spores in talc / peat formulation is poor, hence efficiency is lost	Effect of liquid biofertilizers in maximizing yield	5	Application of liquid bio fertilizer Viz; Azospirillum - 250ml, phospho bacteria – 250ml, Pseudomonas – 500ml, to maximize the yield	Number of productive tillers, Yield	No. of productive tillers, T ₁ -293.6 T ₂ - 305.6 T ₃ - 326.0 Yield T ₁ -51.2 q/ha T ₂ -54.10 q/ha T ₃ - 56.90 q/ha	Use of liquid bio fertilizer were found effective in increasing the No. of protective tillers and yield	Farmers were satisfied on the performance of liquid bio fertilizer	-	-
Vegetables	Garden land	Low yield in sole crop cultivation	Pole beans mixed with bitter gourd/snake gourd and lablab in pandal	5	Composite vegetable cultivation in pandal	Yield of individual crop, BCR	Sole crop – Pole beans T ₁ - 130.0 q/ha Mixed cropping T ₂ - Beans - 100 .0 q/ha Lab lab - 82.0 q/ha Bitter Gourd - 400.5 q/h	Composite cropping of Pole beans, Snake Gourds and Bitter gourds is resulted in higher net profit.	Cumulative yield of individual vegetables increases net profit from unit area.		

Vegetables (Tomato)	Garden land	Fruit borer (Hevicoverta, and Spodopoda litre) menaces tomato is high all the yield of loss ran fell from 30 – 40%	Bio intensive management of fruit borer in tomato	5	Development of ecofriendly IPM strategies including setting of sex pheromone trap, clean cultivation and basal application of FYM @25 t/ha + biofertilizers /biopesticides viz; Beaveria 2 spray @ 250 ml/ac + Bt 25.ml/ac +Neem formulation + NPV200 ml(twice) as foliar spray.	% loss of fruits by borer, Yield		Use of ecofriendly IPM strategies in tomato against fruit borer were found effective.	Farmers have accepted the technology since this ecofriendly method (Biofertilizers+ biopesticides) simultaneously reduced the incidence of fruit borer and increased the fruit production per hectare.	-	-
Cashew	Garden land	Tea mosquito bug and fruit borers menace in cashew and the estimated yield loss ranged from 40 – 50%	IPM for tea mosquito bug in cashew	5	In progress						

Contd..

OFT No.	Technology Assessed	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
1)	Technology option 1 (Farmer's practice)	2.96	q/ha	15200	3.17
	Technology option 2 -Foliar application of DAP 2%	3.16	q/ha	16715	3.39

	Technology option 3 -Foliar application of MAP 1% and KCl 1%	3.33	q/ha	17975	3.57
2)	Technology option 1 -(Farmer's practice)	48.0	q/ha	19300	1.67
	Technology option 2 -Application of ZnSO ₄	50.0	q/ha	21250	1.73
	Technology option 3 -Application of enriched FYM with ZnSO ₄	50.6	q/ha	21850	1.76
	Technology option 4 -Application of enriched FYM with Zn solubiliser	52.19	q/ha	23440	1.81
3)	Technology option 1 -(Farmer's practice)	Brinjal - 425.0 Bhendi – 113.0	q/ha	335000	Brinjal –4.70 Bhendi –1.91
	Technology option 2 –Mulching with paddy straw	Brinjal - 480.0 Bhendi – 130.0	q/ha	390000	Brinjal – 5.30 Bhendi –2.20
	Technology option 3 - Mulching with coir dust	Brinjal - 485.0 Bhendi – 128.0	q/ha	395000	Brinjal – 5.40 Bhendi –2.13
	Technology option 4 - Mulching with Green manure crop (Sunhemp)	Brinjal - 525.0 Bhendi – 150.0	q/ha	435000	Brinjal – 5.83 Bhendi –2.50
4)	Technology option 2 –Rice	45.0	q/ha	18750	1.71
	Technology option 3 - Ragi	18.0	q/ha	13250	1.80
5)	Technology option 1 -(Farmer's practice)	Brinjal 455.0	q/ha	345000	4-14
	Technology option 2 –Application of panchakavya	560.0	q/ha	451000	5.10
	Technology option 3 - Application of vermiwash	540.0	q/ha	436000	4.96
	Technology option 4 - Application of humic acid	600.0	q/ha	492000	5.47
6)	Technology option 1 -(Farmer's practice)	51.20	q/ha	26260	1.7
	Technology option 2 –Biofertilizer (talc/peat) formulation	54.10	q/ha	29305	1.8
	Technology option 3 – Biofertilizer Liquid formulation	56.90	q/ha	32245	1.9
7)	Technology option 1 -(Sole crop of pole beans in pandal)	130.0	q/ha	135000	2.08
	Technology option 2 –Mixed cropping of Pole beans, Bittergourd and Lablab in pandal	Pole beans – 100.0, Bittergourd – 401.5 Lablab – 82.0 (Total 582.0)	q/ha	733250	4.82

8)	Technology option 1 -(Farmer's practice)	419	q/ha		2.34
	Technology option 2 –Integration of NPV, Pheromone trap and chemical pesticide	445	q/ha		2.42
	Technology option 3 – Integration of NPV, Pheromone trap, Bevaeria, Bt and Neem product	516	q/ha		2.80
9)	Technology option 2 – Use of Chemicals	In progress			
	Technology option 3 – Pruning and use of chemicals and neem formulation				

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

- 1 Title of Technology Assessed
- 2 Problem Definition
- 3 Details of technologies selected for assessment
- 4 Source of technology
- 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

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

(A)

- 1 Title of Technology Assessed:
Nutrient management for rice fallow pulses
- 2 Problem Definition:
Reduction in yield due to non-adoption of nutrient management technologies
- 3 Details of technologies selected for assessment:
T₁- Without any nutrients
T₂- Foliar application of DAP 2%
T₃- Foliar application of MAP 1% and KCl %
- 4 Source of technology:
TNAU
- 5 Production system and thematic area:
Wetland – Rice fallow
- 6 Performance of the Technology with performance indicators: Yield:

OFT No.	Technology Assessed	Production
1)	Technology option 1 (Farmer's practice)	2.96 q/ha
	Technology option 2 -Foliar application of DAP 2%	3.16 q/ha
	Technology option 3 -Foliar application of MAP 1% and KCl 1%	3.33 q/ha

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :
Application of MAP, a water soluble fertilizer along with KCl has promising results followed by the results obtained from the application of DAP 2% alone(T₂). T₂ had better results over T₁.
- 8 Final recommendation for micro level situation:
Foliar application of nutrients at critical stages is important to manage the nutrient deficiencies and thereby helps in increasing the yield.
- 9 Constraints identified and feedback for research:
Pulses being a rice fallow crop should be planted at the right date. The technology demonstrated should be followed at the exact stages.
- 10 Process of farmers participation and their reaction:
Farmer's participated with keen interest. They were satisfied with the technology. Other farmers in the farm science club were also motivated by the visual results obtained.

(B)

- 1 Title of Technology Assessed:
Enriched Zinc sulphate for zinc deficiency in rice
- 2 Problem Definition:
Zinc deficiency was observed throughout the district as the micronutrient Zinc was not applied. Hence, there was a reduction in yield.

- 3 Details of technologies selected for assessment:
 T₁- Application of ZnSO₄
 T₂- Application of enriched FYM with ZnSO₄
 T₃- Application of enriched FYM with Zn solubiliser

- 4 Source of technology:
 TNAU

- 5 Production system and thematic area:
 Wetland

- 6 Performance of the Technology with performance indicators:

OFT No.	Technology Assessed	Production
2)	Technology option 1 -(Farmer's practice)	48.0 q/ha
	Technology option 2 -Application of ZnSO ₄	50.0 q/ha
	Technology option 3 -Application of enriched FYM with ZnSO ₄	50.6 q/ha
	Technology option 4 -Application of enriched FYM with Zn solubiliser	52.19 q/ha

Yield: T₁- 50 q/ha T₂- 50.6 q/ha T₃- 52.19 q/ha

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques:

Application of enriched FYM with Zinc solubiliser recorded the highest yield followed by application of enriched FYM with ZnSO₄ and application of ZnSO₄ alone.

- 8 Final recommendation for micro level situation:

1. Primarily, application of FYM enriched with Zn solubilisers is recommended.

2. FYM enriched with ZnSO₄ is also recommended to alleviate Zn deficiency in Paddy soils.

- 9 Constraints identified and feedback for research:

--

- 10 Process of farmers participation and their reaction:

Farmer's participation was observed in major scale. Application of ZnSO₄ had fruitful results among the farmers.

(C)

1. Title of Technology Assessed

Mulching for weed control & moisture conservation

2 Problem Definition

Reduction in yield due to more of weed infestation and less moisture due to poor water holding capacity.

3 Details of technologies selected for assessment

1. With out mulch
2. Mulching with Paddy Straw
3. Coir dust
4. Green manure (Sun hemp) crop raising and mulching

4. Source of technology

TNAU

5. Production system and thematic area

Irrigated

Increasing the yield by mulching thereby conserving soil moisture & controlling the weed infestation.

6. Performance of the Technology with performance indicators

Technology Assessed	Production
Technology option 1 -(Farmer's practice)	Brinjal - 425.0 q/ha Bhendi – 113.0 q/ha
Technology option 2 –Mulching with paddy straw	Brinjal - 480.0 q/ha Bhendi – 130.0 q/ha
Technology option 3 - Mulching with coir dust	Brinjal - 485.0 q/ha Bhendi – 128.0 q/ha
Technology option 4 - Mulching with Green manure crop (Sunhemp)	Brinjal - 525.0 q/ha Bhendi – 150.0 q/ha

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

From the various technologies assessed mulching with green manure crop viz; sunhemp increased the yield of brinjal and bhendi which was considerably more when compared to other mulching treatment.

8. Final recommendation for micro level situation

Mulching with farm residues can be done in areas with soils having less water holding capacity and where water availability is scarce.

9. Constraints identified and feedback for research

This technology should be experimented for all vegetables where constraints exist and in soils with poor water holding capacity.

10. Process of farmers participation and their reaction

The farmers were involved in following this technology and their participation was good with full involvement in conducting the OFT.

(D)

1. **Title of Technology Assessed -**
Ragi as alternate crop in summer
2. Problem Definition
Salinity during summer/kharif.
3. Details of technologies selected for assessment/refinement

Technology Option I	Farmers practice (Rice (Summer/Kuruvai) Yield loss in grain (30-40%) is not uncommon in tube well irrigated areas.)
Technology Option II (TNAU)	Ragi during summer Ragi may tolerate salinity and withstand inundative of water for a few days. This millet is also getting popular and find place in every days food. Hence this has to be assessed.

4. Source of technology
TNAU
5. Production system and thematic area
Production system - Irrigated . Thematic area - Crop diversification
6. Performance of the Technology with performance indicators
Yield recorded

	Yield	Net return/ha	BC ratio
Technology option 1 –Rice	4500 kg	18750	1.71
Technology option 2 - Ragi	1800 kg	13250	1.80

7. Final recommendation for micro level situation
Alternate crop during summer
8. Constraints identified and feedback for research:
Nil
9. Process of farmers participation and their reaction
Satisfactory

(E)

1. Title of Technology Assessed
Humic acid and vermin wash as growth and yield of vegetables like chillies/tomato
2. Problem Definition
Low organic content in soils due to indiscriminate use of fertilizers resulting in low yield & quality of products.
3. Details of technologies selected for assessment

1- Farmers practice
2 - Application of panchakavya
3 - Application of vermiwash
4 - Application of humic acid

4. Source of technology

TNAU

5. Production system and thematic area

Irrigated

Organic farming practices for soil health management and yield maximization

6. Performance of the Technology with performance indicators

Technology Assessed	Production
Technology option 1 – Farmers practice	455.0 q/ha
Technology option 2 –Application of panchakavya	560.0 q/ha
Technology option 3 - Application of vermiwash	540.0 q/ha
Technology option 4 - Application of humic acid	600.0 q/ha

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

Application of humic acid in brinjal cultivation resulted in higher yield and compared to the application of Panchakavya and vermin wash

8. Final recommendation for micro level situation

Application of humic acid is necessary to improve the soil health and in turn increases the yield.

9. Constraints identified and feedback for research

Application of humic acid needs to be conducted for other vegetables crops to increase the yield.

10. Process of farmers participation and their reaction

The farmers participation in conducting the OFT was good and satisfactory

(F)

1. Title of Technology Assessed

Effect of liquid bio fertilizer in maximizing yield.

2. Problem Definition

Viability of spores in talc / peat formulation and hence the utility is lost when used after months.

3. Details of technologies selected for assessment

1 - (Farmer's practice)
2 – Biofertilizer talc/peat formulation Azospirillam, Phospo bacteria, Zinc solubiliser, Pottash solubiliser and Pseudomonas
3 – Biofertilizer Liquid formulation Azospirillam, Phospo bacteria, Zinc solubiliser, Pottash solubiliser and Pseudomonas

4. Source of technology

TNAU

5. Production system and thematic area

Rice – Rice –Pulses (wetland)

Sustainable protection

6. Performance of the Technology with performance indicators

Technology Assessed	Production
Technology option 1 -(Farmer's practice)	51.20 q/ha
Technology option 2 –Biofertilizer (talc/peat) formulation	54.10 q/ha
Technology option 3 – Biofertilizer Liquid formulation	56.90 q/ha

Adoptable. The results revealed that use of liquid bio fertilizer increase the production of tillers and yield when compared to farmers practice and application of bio fertilizer in talc / peat farm.

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

The feed back obtained simultaneous from all the five location revealed that farmers were satisfied to utilize the bio fertilizer, Since it has some cumulative effect on yield as well as prolonged effect on soil health for a period of time when compared to talc/peat formulation.

8. Final recommendation for micro level situation

Based on the above assessment it is recommended that the following liquid biofertilizer were suitable for Rice-Rice-Pulses under wetland ecosystem.

- I) Azospirillum - 250 ml
- II) Phosphobacteria - 250 ml
- III) Pseudomonas - 500 ml

9. Constraints identified and feedback for research:

No constraints

10. Process of farmers participation and their reaction:

The farmers actively involved in following and disseminating the technology.

(G)

1. Title of Technology Assessed

Pole beans mixed with bitter gourd/snake gourd and lablab in pandal

2. Problem Definition

Low returns from single crop and less utilization of pandal area.

3. Details of technologies selected for assessment

1 -	Farmers practice (Sole crop in pandal)
2 -	Mixed cropping of Pole beans, Bittergourd and Lablab in pandal

4. Source of technology

TNAU

5. Production system and thematic area

Irrigated

Yield maximisation

6. Performance of the Technology with performance indicators

Technology Assessed	Production
Technology option 1 -(Sole crop of pole beans in pandal)	130.0 q/ha
Technology option 2 –Mixed cropping of Pole beans, Bittergourd and Lablab in pandal	Pole beans – 100.0, q/ha Bittergourd – 401.5 q/ha Lablab - 82.0 q/ha

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

Cumulative yield of individual vegetables increases the net profit from unit area.

8. Final recommendation for micro level situation

Composite cropping of pole beans, bitter gourd and lab lab resulted in higher net profit.

9. Constraints identified and feedback for research

Nil

10. Process of farmers participation and their reaction

Satisfactory

(H)

1. Title of Technology Assessed

Bio intensive methods of management of fruit borer in tomato

2. Problem Definition

Fruit borer incidence was found more upto extent of 30 – 40% which resulted in yield loss.

3. Details of technologies selected for assessment

Technology option 1 -(Farmer's practice)
Technology option 2 –Integration of NPV, Pheromone trap and chemical pesticide
Technology option 3 – Integration of NPV, Pheromone trap, Bevaeria, Bt and Neem product

4. Source of technology

TNAU

5. Production system and thematic area

Garden land

Developing eco friendly, IPM strategies for control of fruit borer complex in tomato.

6. Performance of the Technology with performance indicators

Technology option	% Fruit loss	Yield Q/ha
Option 1 -(Farmer's practice)	29.9	419.4
Option 2 –Integration of NPV, Pheromone trap and chemical pesticide	26.6	444.7
Option 3 – Integration of NPV, Pheromone trap, Bevaeria, Bt and Neem product	13.78	516.4

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques
farmers were satisfied with the performance of IPM strategies borer based on the yield as well as control over fruit borer infestation percentage.
8. Final recommendation for micro level situation
Use of both bio fertilizer and bio pesticide in IPM were found effective in managing the fruit borer complex in tomato.
9. Constraints identified and feedback for research
Nil
10. Process of farmers participation and their reaction
Satisfactory.

(I)

1. Title of Technology Assessed
IPM for tea – mosquito bug in cashew
2. Problem Definition
Tea mosquito bug and fruit borers menace in cashew and the estimated yield loss was ranged from 40 -50%.
3. Details of technologies selected for assessment
- | |
|---|
| Technology option 2 – Use of Chemicals |
| Technology option 3 – Pruning and use of chemicals and neem formulation |
4. Source of technology
TNAU
5. Production system and thematic area
Garden land
To create awareness and to test verify eco friendly IPM strategies for control of fruit borer and tea mosquito bug in cashew.
6. Performance of the Technology with performance indicators
In progress
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
--

4.D1. Results of Technologies Refined

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology refined	Parameters of refined t	Data on the parameter	Results of refinement	Feedback from the farmer	Any refinement done	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12

Contd..

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

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

1. Title of Technology refined
2. Problem Definition
3. Details of technologies selected for refinement
4. Source of technology
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

PART V - FRONTLINE DEMONSTRATIONS

5.A. Summary of FLDs implemented during 2009-10

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													
	Pulses													
	Cereals	Wetland	Kharif 2009	Rice	CR 1009, CO 50, BPT 5204	-	Yield maximization	Microbial consortia for yield maximization in rice	5	5	-	10	10	-
	Millets	Wetland	Kharif 2009	Rice		-	Farm Mechanization	Drum seeding of rice in low lands to reduce labour requirement	20	10	-	20	20	-
	Vegetables	Garden land	Sep-Oct 2009	Tomato, Chillies	Local	-	Yield maximization	Quality seedling production to improve yield & quality of vegetables	0.4	0.4		10	10	-
	Flowers	Irrigated					IFS	Rain water harvesting and management				2	2	In Progress
	Ornamental													
	Fruit	Garden land	Apr-May 2010	Banana	G-9 Robusta		High density planting for yield maximization	High density planting in banana to increase unit area production	1.0	0.5		5	5	-
	Spices and condiments	Garden land	Sep-Dec 2009	Black Pepper	Panniyur-1		Additional income	Black Pepper (Panniyur-1) inter crop in coconut	1.0	1.0 (200 trees)		10	10	

	Common carps													
	Sea bass	Farm pond	2009 - 10	-	<i>Lates calcarifer</i>	-	Alternate income	Sea fish (Sea bass - Lates calcarifer) culture in inland fresh water	2	2	-	2	2	-
	Mussels													
	Ornamental fishes													
	Oyster mushroom													
	Button mushroom													
	Vermicompost													
	Sericulture													
	Apiculture													
	Implements													
	Others (specify) Azolla	Irrigated (Garden land)	2009 - 10	-	Rong ping	-	Popularization as alternate feed	Popularizing azolla as feed for animals & fish	20	7	3	4	7	-
	Grain Amaranth	Irrigated Garden land	June - July 2009	Grain Amaranth	Swarna	-	New introduction	Popularization of Grain Amaranth	0.2	0.2	-	1	1	-

5.A. 1. Soil fertility status of FLDs plots during 2009-10

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												
	Pulses												
	Cereals	Wetland	Kharif 2009	Rice	CR 1009, CO 50, BPT 5204	-	Yield maximization	Microbial consortia for yield maximization in rice	Kharif 2009	L	M	H	Fallow
	Millets	Wetland	Kharif 2009	Rice			Farm Mechanization	Drum seeding of rice in low lands to reduce labour requirement	Kharif 2009	L	M	H	Fallow
	Vegetables	Gardenland	Aug-Oct 2009	Tomato, Chillies	Local	-	Yield maximization	Quality seedling production to improve yield & quality of vegetables	Aug-Oct 2009	L	M	H	Fallow
	Flowers	Gardenland	2009 - 10	Vegetables	-	-	IFS	Rain water harvesting and management	2009 - 10	L	M	H	
	Ornamental												
	Fruit	Garden land	Apr-May 2010	Banana	G-9 Robusta		High density planting for yield maximization	High density planting in banana to increase unit area production	Apr-May 2010	L	M	H	Vegetable
	Spices and condiments	Garden land	Sep-Dec 2009	Black Pepper	Panniyur-1		Additional income	Black Pepper (Panniyur-1) inter crop in coconut	Sep-Dec 2009	L	M	H	Coconut
	Commercial												
	Medicinal and aromatic												
	Fodder	Irrigated	2009 - 10	Fodder grass	CO (CN)4	Cumbu Nabier hybrid	Producing green fodder to increase the milk yield of milch animals	Popularization of CO4 C/N fodder grass	2009 - 10	L	M	H	Vegetables

	Plantation	Garden land	2009 - 10	Coconut	Local	-	Yield maximization	Management of micro nutrient disorder in coconut to overcome shedding of buttons & malformation	2009 - 10	L	M	H	-
	Fibre												
	Others (Pl.Specify)	Irrigated Garden land	2009 - 10	Azolla	Rong ping	-	Alternate feed	Popularizing azolla as feed for animals & fish	2009 - 10	L	M	H	Fallow
	Grain Amaranth	Irrigated Garden land	June - July 2009	Grain Amaranth	Swarna	-	New introduction	Popularization of Grain Amaranth	June - July 2009	L	M	H	Paddy

5.B. Results of Frontline Demonstrations

5.B.1. Oilseeds:

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										
Groundnut	INM and IPM	TMV 13	-	Irrigated	12	5	17.2	14.8	16.2	14.0	21.21	7566	56700	49134	7.49	5161	35000	29839	6.78
Sesamum	Improved package of practices	TMV 6	-	Rainfed	12	5	9.5	6.3	7.7	6.15	25.20	3500	15400	11900	4.40	2950	12300	9350	4.16
	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

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	Local

5.B.2. Pulses

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										
Blackgram	Improved package of practices	ADT 3	-	Wetland -Rice fallow	25	10	3.37	1.70	2.44	1.56	56.4	7000	18300	11300	2.61	4800	11700	6900	2.43
	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

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	Local

Plantation	Management of micro nutrient disorder in coconut to overcome shedding of buttons & malformation	Local	-	Garden land	10	1 (200 trees)	155 Nuts / tree	117 Nuts / tree	136 Nuts / tree	93 Nuts / tree	46.23	110	680	570	6.18	65	279	214	4.29
Fibre																			
Others (pl.specify) Azolla	Popularizing azolla as feed for animals & fish	Rong Pink	Irrigated (Garden land)	-	20	0.08	30 kg	25 kg	27.5 kg	-	-	11	30	19	2.72	-	-	-	-
Grain Amaranth	Popularization of Grain Amaranth	Swarna	Irrigated (Garden land)	-	1	0.2	16.25	16.25	16.25	-	-	12500	29375	16875	2.35	-	-	-	-

* 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 in weed/pest/ diseases etc.)

Data on other parameters in relation to technology demonstrated

Parameter with unit	Demo	Local

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	Local

5.B.6. Other enterprises

Enterprise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area (m ²)	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											
Oyster mushroom																		
Button mushroom																		
Vermicompost																		
Sericulture																		
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.7. Farm implements and machinery

Name of the implement	Name of the technology demonstrated	No. of Demo	Units/ Area (m ²)	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												

* 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 in drudgery, time and labour saving etc.)

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

Technical Feedback on the demonstrated technologies on all crops / enterprise

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1			
2			

Farmers' reactions on specific technologies

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1			
2			

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days			
2	Farmers Training			
3	Media coverage			
4	Training for extension functionaries			

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																		
Bajra																		
Maize																		
Rice																		
Sorghum																		
Wheat																		
Others (pl.specify)																		
Total																		
Oilseeds																		
Castor																		
Mustard																		
Safflower																		
Sesame																		
Sunflower																		
Groundnut																		
Soybean																		
Others (pl.specify)																		
Total																		
Pulses																		
Greengram																		
Blackgram																		
Bengalgram																		
Redgram																		
Others (pl.specify)																		
Total																		
Vegetable crops																		
Bottle gourd																		
Capsicum																		
Others (pl.specify)																		
Total																		
Cucumber																		
Tomato																		
Brinjal																		
Okra																		
Onion																		
Potato																		
Field bean																		
Others (pl.specify)																		
Total																		
Commercial crops																		
Sugarcane																		
Coconut																		
Others (pl.specify)																		
Total																		
Fodder crops																		
Maize (Fodder)																		
Sorghum (Fodder)																		
Others (pl.specify)																		
Total																		

H-High L-Low, A-Average

Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production (Training)	1	-	12	12	--	-	-	-	12	12
Apiculture										
Others (pl.specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify) Farm service club meeting		35	1	36	-	-	-	35	1	36
Agro-forestry										
Production technologies Bamboo cultivation	2	60	-	60	-	-	-	60	-	60
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	27	895	71	966	-	-	-	895	71	966

Production of Inputs at site									
Seed Production									
Planting material production									
Bio-agents production	1	12	3	15			12	3	15
Bio-pesticides production									
Bio-fertilizer production									
Vermi-compost production									
Organic manures production Coil pith composting	1	26	4	30			26	4	30
Production of fry and fingerlings									
Production of Bee-colonies and wax sheets									
Small tools and implements									
Production of livestock feed and fodder									
Production of Fish feed									
Mushroom production									
Apiculture									
Others (pl.specify)									
Capacity Building and Group Dynamics									
Leadership development	1	13	22	35			13	22	35
Group dynamics									
Formation and Management of SHGs									
Mobilization of social capital									
Entrepreneurial development of farmers/youths									
Others (pl.specify)									
Agro-forestry									
Production technologies (Bamboo cultivation)	1	50	-	50			50	-	50
Nursery management									
Integrated Farming Systems									
Others (Pl. specify)									
TOTAL	23	689	182	871			689	182	871

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	1	21	3	24				21	3	24
Integrated Pest Management	2	104	3	107				104	3	107
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs	1	49	2	51				49	2	51
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)	1	20	11	31				20	11	31
Total	5	193	19	212				193	19	212

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											
1.a.	Increasing production and productivity of crops											
1.b.	Commercial production of vegetables											
2	Production and value addition											
2.a.	Fruit Plants											
2.b.	Ornamental plants											
2.c.	Spices crops											
3.	Soil health and fertility management											
4	Production of Inputs at site											
5	Methods of protective cultivation											
6	Others (pl.specify)											
6a.	Afforestation & Environmental management	15	261	372	633				261	372	633	
6b.	Bamboo cultivation	1	300	-	300				300	-	300	
7	Post harvest technology and value addition											
7.a.	Processing and value addition											
7.b.	Others (pl.specify)											
8	Farm machinery											
8.a.	Farm machinery, tools and implements											
8.b.	Others (pl.specify)											
9.	Livestock and fisheries											
10	Livestock production and management											
10.a.	Animal Nutrition Management											
10.b.	Animal Disease Management											
10.c.	Fisheries Nutrition											
10.d.	Fisheries Management											
10.e.	Others (pl.specify)											
11.	Home Science											
11.a.	Household nutritional security											
11.b.	Economic empowerment of women											
11.c.	Drudgery reduction of women											
11.d.	Others (pl.specify)											
12	Agricultural Extension											
12.a.	Capacity Building and Group Dynamics											
12.b.	Others (pl.specify)											
	Exhibition cum seminar on FSC	1	635	65	700				635	65	700	
	Farmers day exhibition	1	2690	310	3000				2690	310	3000	
	Technology week	1	2004	126	2130				2004	126	2130	
	Total	19	5890	873	6763				5890	873	6763	

Details of sponsoring agencies involved**1. IFAD****2. Department of Horticulture****3. City Union Bank****4. NABARD, New Holland, Punjab Tract, Mahindra & Mahindra Tafe, Escorts, KB, Jayalakshmi Agencies, Jain Trg., IICPT.**

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										
1.a.	Commercial floriculture										
1.b.	Commercial fruit production										
1.c.	Commercial vegetable production										
1.d.	Integrated crop management										
1.e.	Organic farming										
1.f.	Others (pl.specify)										
2	Post harvest technology and value addition										
2.a.	Value addition										
2.b.	Others (pl.specify)										
3	Livestock and fisheries										
3.a.	Dairy farming										
3.b.	Composite fish culture										
3.c.	Sheep and goat rearing										
3.d.	Piggery										
3.e.	Poultry farming										
3.f.	Others (pl.specify)										
4	Income generation activities										
4.a.	Vermi-composting										
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery and implements	14	20	-	20			14	20	-	20
4.d.	Rural Crafts	14	20	-	20			14	20	-	20
4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation 3 days	1	-	40	40			1	-	40	40
4.h.	Nursery, grafting etc.										
4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agri. para-workers, para-vet training										
4.k.	Others (pl.specify)										
5	Agricultural Extension										
5.a.	Capacity building and group dynamics										
5.b.	Others (pl.specify)										
	Grand Total	29	40	40	80			29	40	40	80

PART VIII – EXTENSION ACTIVITIES**Extension Programmes (including activities of FLD programmes)**

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	1	12	-	12						
Kisan Mela										
Kisan Ghosthi										
Exhibition	3	5329	501	5830						
Film Show										
Method Demonstrations	1	20	-	20						
Farmers Seminar	1	300	-	300						
Workshop										
Group meetings										
Lectures delivered as resource persons	28	687	723	1410						
Newspaper coverage	21	-	-	-						
Radio talks	6	-	-	-						
TV talks	2	-	--	--						
Popular articles										
Extension Literature	14	-	-	-						
Advisory Services										
Scientific visit to farmers field										
Farmers visit to KVK										
Diagnostic visits		1188	22	1210						
Exposure visits										
Ex-trainees Sammelan	3	95	15	110						
Soil health Camp										
Animal Health Camp	2	32	-	32						
Agri mobile clinic										
Soil test campaigns										
Farm Science Club Conveners meet	3			96						
Self Help Group Conveners meetings										
Mahila Mandals Conveners meetings										
Celebration of important days (specify)										
Any Other (Specify) Technology Week	5			2130						
Total	89	7663	1261	8924						

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS**9.A. Production of seeds by the KVKs**

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)						
Oilseeds						
Pulses						
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
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						
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others(specify)						
Total						

9.C. Production of Bio-Products

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

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)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total				

PART X – PUBLICATION, SUCCESS STORY, SWTL

10. A. Literature Developed/Published (with full title, author & reference)

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

Name	:	Uzhavan
Date of start	:	Oct – Dec 2007
Periodicity	:	Half yearly
No. of copies distributed every quarter	:	100

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers			
Technical reports			
News letters			
Technical bulletins			
Popular articles			
Extension literature	1. Mealy bug incidence and thier management	Dr.R.Rajendran. & Dr.K.C.Gouthaman.	400
	2. Cultivation technology of Grain Amaranth	Dr.R.Revathi Dr T. Dhamodaran. & Dr.K.C.Gouthaman.	500
	3. Integrated Nutrient Management for sustainable crop production	Dr.D.Jayanthi Dr T. Dhamodaran Dr.R.Revathi . & Dr.K.C.Gouthaman.	500
	4. Cultivation technology for Winter Vegetables	Dr.D.Jayanthi Dr.C.Vijulan Harris Dr T. Dhamodaran Dr.R.Revathi . & Dr.K.C.Gouthaman.	500
	5. Quality seedling production in protrays	Dr.C.Vijulan Harris Dr T. Dhamodaran Th.V.Gnanabharathi Th.R.Vedharathinam . & Dr.K.C.Gouthaman	500
	6. Milky mushroom production technologies	Dr T. Dhamodaran Th.V.Gnanabharathi Dr.R.Rajendran Dr.C.Vijulan Harris & Dr.K.C.Gouthaman	500
	7. Cultivation techniques for <i>Casuarina junghumiana</i>	Dr.R.Revathi Dr T. Dhamodaran Dr.D.Jayanthi Th.V.Gnanabharathi. & Dr.K.C.Gouthaman.	500
	8.Sea fish culture in inland fresh water	Dr T. Dhamodaran Dr.J.John Gunasekar Th.V.Gnanabharathi Th.R.Vedharathinam . & Dr.K.C.Gouthaman	500
	9. Direct sowing in rice using drum seeding	Dr T. Dhamodaran Th.V.Gnanabharathi Th.R.Vedharathinam Dr.R.Rajendran & Dr.K.C.Gouthaman	500

	10. System of Rice Intensification	Dr.R.Rajendran. Th.V.Gnanabharathi & Dr.K.C.Gouthaman.	400
	11. Reclamation of saline and alkaline soils	Dr.D.Jayanthi Dr T. Dhamodaran Dr.R.Revathi . & Dr.K.C.Gouthaman.	500
	12. Nutrient management (N)in rice using Leaf Colour Chart	Dr.D.Jayanthi Dr T. Dhamodaran Dr.R.Revathi . & Dr.K.C.Gouthaman.	500
Booklet	Role Of microbes for sustainable agriculture	Dr.K.C.Gouthaman. Dr.T.Elaiya bharathi Dr.John Gunasekar	1000
Book	SRI technology & farm implements	Dr. K. Rangasamy Dr. P.Dhananchezhiyan Dr.J.John Gunasekar Selvi. K.Rathi kannan Dr.B.J. Pandiyan Dr.M.V.Rengasamy	500
	Plant Biochemistry	Dr.V.Arunkumar Dr.N.Senthil Kumar Dr.K.Sivakumar	
	Book on “ Flora of Tropical Dry”	Dr.A.Bala Dr. R.Revathi Dr.M.G.Rao	
Others (Pl. specify)	--	--	--
TOTAL	12 Nos		5800

News paper message		
A.	Paper news about training / demonstration	21

10.B. Details of Electronic Media Produced

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

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

Success Story I

Tmt.Shan begam W/o.Safifulla is an elite and innovative woman keen on utilizing scientific information in establishing commercial mushroom production unit at Nagapattinam town. She used to actively participate in mushroom training programmes conducted regularly at KVK, Sikkal and TNAU, Coimbatore. Initially as a trainee and later on as a entrepreneur. Apart from attending the training programme she also has the habit of watching Agricultural programmes in Doordhashan (Pothigai) channel, listening AIR, reading dailies and agriculture magazines. She has also undergone diploma course under ODL mode based on the encouragement given by KVK, Nagapattinam.

Reasons for establishment

- ❖ Started mushroom production to utilize extra time effectively with some income generation.
- ❖ Self reliance
- ❖ Social status
- ❖ Perceived opinion

Due to establishment of mushroom production unit the following advantages were perceived.

- ❖ Increased family income
- ❖ Improved social status
- ❖ Increased self satisfaction

Constraints and Suggestions

- ❖ Initial investment
- ❖ Lack of knowledge on spawn production
- ❖ Fluctuation in production/yield depending upon the climatic condition
- ❖ Limited area and resource

Institutional support on certifying value added products will greatly help in marketing the products at higher price thus increasing the profit margin.

Case analysis

The case illustrates that establishment of commercial mushroom production unit by Tmt. Shan begum has fetched considerable income from limited area and resource. An attitude characterized by a strong orientation towards scientific and systematic approach to achieve the objectives has enabled her to reap the benefits of the mushroom technology.

Further her full time involvement and commitment in mushroom cultivation as a main avocation and income generating activity, gave her the confidence for effective involvement of resources and time in listening/reading mass media, contacting KVK and TNAU scientists in acquiring knowledge about the improved mushroom production technology which proved to be the driving force for perfect establishment of a commercial mushroom production units (Oyster and Milky) in her home under township condition. She is also producing mushroom pickle as a value added product and marketing at shopping malls such as Reliance and Femina in Tamilnadu.

Success Story II

Shri. Jeevanantham, S/o. Ganapathy a progressive farmer of Nangudi a nearby village from KVK premises, who used to visit KVK very frequently to take advice on farm activities.

He is a seed producer (Pulses & Rice) and was not able to generate good remuneration for all his efforts, all the firms fighting against floods, droughts and natural calamities, being this coastal district from the tail end of the cauvery delta net work. Rice is the prime crop since the soil is clayey with poor drainage and any cropping is only based on rice farming. He is also the first person in Nagapattinam to adopt SRI with the advice of the scientists from TRRI, Aduthurai and practicing since 2001 and **raising of rice nursery under shade net was found successful in producing quality seedlings suitable for SRI cultivation.** Rice being a low remunerative crop he wanted to switch over to alternate cropping/farming system to generate more income and sustainability in production system.

Since water is a very scarce input during summer and kharif, he has excavated a farm pond (1.0 acre) for harvesting rain water with the assistance of the department of Agricultural Engineering during 2004. He has also

raised a piece of low level (0.25 ac) with the excavated soil. He has been practicing fish farming besides rearing some goats.

He has approached the KVK to take advice on improving his farm and to generate more income. Accordingly KVK scientists has visited his farm and appropriate advises/solutions were offered from time to time.

He was suggested to go for high value crops in the raised portion of his farm (0.25 ac.). Accordingly seedlings of casuarina were provided for border planting and annual moringa (PKM1) for planting along the bunds of the farm pond. Seeds of F1 hybrid chillies (10 gm) and cabbage suitable for plain (10 gm) were given during December 2006. He has planted 10 cents of chillies hybrid (Priyanka) and 10 cents of cabbage (Hari Rani) accordingly to the package provided. He has obtained 300 kg of cabbage an average from one cent area with a gross income of R.30,000/- in a span two months from the day of planting from 10 cents.

He has also made a record yield from this chilli crop. He maintained the crop for 9 months in his field. He has obtained Rs.52,000/- by sale of green chillies (price ranged from Rs.9/- to Rs.11/- per kg). Besides green chillies for 10 cents. When projected to an acre the yield of green chillies works out to 72t (180t/ha) which can provide a gross income of Rs.18/- to Rs.20 lakhs/ha.

This crop was witnessed by 1000 of farmers who have been motivated to go for hybrid vegetables. At present nearly 100 farmers are practicing.

After some field rectification he has gone for planting 20 cents with Hari Rani cabbage raised from pro-trays with the guidance of KVK. Inter cropping is done with knol-khol (w.vienna). Chillies (var.Priyanka) will be raised in portrays and will be kept ready to plant after cabbage as a relay crop.

His field is being witnessed by farmers from various blocks every day and taking his advice. He is serving an excellent model in this district, not only in vegetables, but also in rice cultivation.

Several demonstrations to serve the farming public were conducted in rice such as SRI, Direct seeding with drum seeder, herbicide usage in weed control and usage of conoweeder beside integrated farming system. Yield increase in paddy from 20-40 percent in rice through SRI and a saving of Rs.5000/- per ha. in the cost of cultivation of rice through drum-seeding has been visually observed by 100s of farmers.

Based on the previous years experience he has raised one hectare of his field level sufficiently enough to drain excess water thoroughly by digging two more farm ponds to provide supplemental irrigation in summer/kharif to the high value crops to be raised under precision farming with the guidance of KVK.

He is practicing integrated use of fertilizers and FYM/goat manure as suggested by KVK in the place of FYM alone for vegetables as being done conventionally in the coastal area.

He has become a trainers trainee for 100s of farmers in the coastal Nagapattinam where farmers have recorded 30t/ac and more in tomato F1 hybrid (Laxmi) through pro-tray seedlings and 14t/ac and more chillies in F1 hybrid (Priyanka). Harvest of chillies is being continued.

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

- a. The training programmes, OFT and FLD are proposed based on the needs of the farmers
- b. The training programmes to be conducted are published in the local dailies and announced through AIR.
- c. Suitable method demonstrations are also arranged in the village based on the requirements.
- d. The technologies are explained and computer and CD's in the training conducted in the village also.

- e. Trainees are taken on exposure visit to the fields of successful farmers to create confidence and motivate them to start a new venture for becoming entrepreneur.
- f. In training programmes resource farmers are being hired to share their experience with trainees to build confidence about the technical feasibility and economic viability.
- g. The impact of TOT is documented by action oriented photographs, video film, writing of success stories and publishing in dailies and journals.

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

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

- Identification of courses for farmers/farm women
- Rural Youth
- Inservice personnel

10.G. Field activities

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

10.H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab :

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

Sl. No	Name of the Equipment	Qty.	Cost
1			
2			
3			
Total			

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				
Water Samples				
Plant samples				
Manure samples				
Others (specify)				
Total				

Details of samples analyzed during the reporting period :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized
Soil Samples				
Water Samples				
Plant samples				
Manure samples				
Others (specify)				
Total				

PART XII IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Precision farming	30	33	25000/ha	2,00,000/ha
Drum seeder	100	25	25000/ha	30,000/ha

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

11.B. Cases of large scale adoption (Please furnish detailed information for each case)

- ❖ **Hybrid vegetables introduction** - Chillies (Priyanka), Tomato (Lakshmi), Bhendi (My-11,12)
Cabbage (Hari rani), Knolkhol (White Vienna), French beans(S-9)
Pole beans (US2)
- ❖ **Popularizing forage crops** - C/N(CO3, CO4), Guinea grass and Desmanthus
- ❖ **Mushroom** - Production technology of oyster mushroom, milky mushroom and spawn production technology
- ❖ **Azolla** - Production technology and popularizing as a feed for animals, poultry and fish.
- ❖ **High yielding rice varieties** - Popularized newly released high yielding rice varieties viz.,
CO(R)48, CO(R)-49, CO(R)-50 and CORH3

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

Sowing paddy seeds in puddled condition using seed drum developed from Tamilnadu Agricultural University, Coimbatore was introduced during kharif 2008. This device is more suitable for summer, kuruvai and early samba crops. The performance of the crop raised with seed drum was equally good as that of transplanted crop with a net saving of Rs.5000/-per ha. and more. Since, 20 cm spacing is provided in between rows, weeding with cono weeder can be done effectively. An area of 1 ha can be sown in a day by two workers. The seed requirement is also less (15 kg/ac) as compared to 40 kg/ac used for broadcasting. There is a saving of 65 mandays/ha as compared to transplanting without yield reduction. Use of Conoweeder resulted in further saving of 40 man days/ha as compared to conventional weeding. The seed drum was demonstrated in the farmers fields in 25 locations using pre-emergence herbicide for weed management, since farmers are not used for cono weeder operation. This system is getting popular and more than 20 seed drums have been sold to the farmers from this institute. Nearly 250 ha have been raised during this season (samba 2008-09). Since this device is cost effective and labour saving without significant yield reduction, efforts are being given for wider spread.

Popularizing high yielding Groundnut varieties:

High yielding varieties viz., VRI 2, CO3 & CO4 were successfully introduced through FLD/Seed village scheme. These varieties performed better than TMV 7 & local types and have become popular along the coast. CO3 & CO4 are bold types possessing dormancy which is a desirable character for kharif season. Latest introduction of TMV 13 a red kernelled variety out yielded all other varieties during Kharif 2008. More than 1000 kg pods per ac was recorded by many farmers during Kharif 2008. This is getting popular along the coast. Efforts taken for seed multiplication under seed village programme for rapid spread.

Popularization of hybrid vegetables:

Hybrids of bhendi, Brinjal, tomato and chillies were introduced during 2008–09.

Among bhendi hybrids studied Mahyco 10 has become popular for its higher yield and tolerance to yellow mosaic virus. 100 kg of Mahyco 10 was distributed for Aadi pattam through Dept. of Horticulture.

Among tomato F1 hybrids Lakshmi (NP 2005) performed well in North Poigainallur (Nagapattinam block). This hybrid recorded more than 30 t/ac of fruits in all the locations tested. This has become popular.

Chillies (Piriyanka) has recorded excellent yield of green chillies (more than 50t/ha) at Kilvelur block. This F1 hybrid attracted all the vegetable growers who have witnessed the crop performance. Efforts taken to produce quality seedlings of tomato & chilli hybrids in protrays. This has also attracted the vegetable growers. Nearly 50 farmers are practicing this technology presently.

Organic farming

Organic farming is given importance for improving the soil health for sustainable production. A Vermi technology unit at a cost of 1.0 lakh has been established at this station. Farmers, SHGs and rural youth are given training on vermicompost production and biodegradation of organic wastes including coirpith for effective utilization of available resources. Awareness has been created on soil health and organic farming to sustain production. So far 30.0 mt of vermicompost has been produced from this unit. Field demonstration on organic inputs (vermicompost and pressmud compost) in 11 locations and use of enriched biogas slurry in 10 locations have also been conducted in different crops (paddy, groundnut and vegetables) with the financial assistance obtained from NCOF Ghaziabad. A model organic farm is being established in 2 ha with the financial assistance of NCOF at a cost of 4.0 lakhs.

Integrated Farming System:

IFS play a vital role to improve the livelihood of the farming community in this district where subsistence farming is done in most of the cases. An assistance of Rs.15.0 lakhs has been obtained from the district administration (RSVY agriculture) to establish a model unit of IFS at this station comprising water harvesting (with provision for artificial recharge structure) structure along with components like fish farming, diary farming, goat rearing, poultry keeping, mushroom production unit and units for recycling waste of different components in an effective manner such as Vermicomposting and biogas plant. Awareness on IFS has been created in the training programmes.

Water harvesting and management:

Water harvesting ponds with an area of 2100 sq.m. has been constructed and rain water has been harvested. A demonstration unit is being established for effective management of rain water for supplemental irrigation requirement of irrigated-dry crops raised in summer. A supportive income through fish farming is also aimed out. It is proposed to give training on rain water harvesting and management to nearly 200 beneficiaries who have constructed such ponds with the subsidy provided by the dept. of Agricultural Engineering.

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
State dept. of Agriculture	<ol style="list-style-type: none"> 1. Joint training programmes and implementations of Rashtriya Sam Vikas Yojana, Tsunami relief, need assessment of farmers and technical guidance to other agrl. Oriented programmes. 2. Giving technical support and infrastructural support during monthly zonal workshop.
Dept. of Horticulture	<ol style="list-style-type: none"> 1. Joint training programme and implementation of Rashtriya San Vikas Yojana, Tsunami relief and other development programmes. 2. Offering need based technical guidance to the extension functionaries.
NABARD	Organizing Farm Science Club
Local, NGOs (DHAN, KUDUMBAM, CAP-TEEN, CREATE, CWS, CES, PCI and others) and NCRC	Organizing Technical training Programmes and offering technical guidance on the rehabilitation of tsunami affected farmers.
TRRI (Aduthurai), SWMRI (Thanjavur) Krishi Vigyan Kendra, (Needamangalam)	Technical consultancy and exchange of SMS during training programmes.
AIR (Trichy, Karaikal)	Offering radio programmes on latest crop production technologies.
DRDA, Nagapattinam	Organizing need based training programme and promoting agricultural entrepreneurship
NHM	To implement the precision farming
Govt. of India	To implement the Seed Village Scheme programme offer guideline
District Collectorate	To implement the waste land development scheme and land reforms counseling.
Municipality and Mahalir Thittam	Organizing skill development traing programme to rural youth SHGs.

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.)
IFS	2007	RSVY- Agriculture	15,00,000/-

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/No

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

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

S. No.	Programme	Nature of linkage	Constraints if any

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

S. No.	Programme	Nature of linkage	Remarks

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	Nagapattinam	879	The Professor & Head, KVK, Sikkal	KVK – Main - 10977883105		
With KVK	State Bank of India	Nagapattinam	879	The Professor & Head, KVK, Sikkal	KVK- RF – 1097789433-3		
	State Bank of India	Nagapattinam	879	The Professor & Head, KVK, Sikkal	RF – Seed Production - 10977884325		

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

Item Sesame + Groundnut	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2010
	Kharif 2009	Rabi 2009-10	Kharif 2009	Rabi 2009-10	
Inputs	17500	35000	17500	14795	20205
Extension activities	2500	5000	0	2530	4970
TA/DA/POL etc.	2500	5000	2499	2541	2460
DE	1250	2500	0	0	3750
TOTAL	23750	47500	19999	19866	31385

14.C. Utilization of funds under FLD on Pulses (Rs. in Lakh)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2010
	Kharif 2009	Rabi 2009-10	Kharif 2009	Rabi 2009-10	
Inputs	0	17500	0	17380	120
Extension activities	0	2500	0	2500	0
TA/DA/POL etc.	0	2500	0	2469	31
DE	0	1250	0	1250	1250
TOTAL	0	23750	0	23599	1401

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2010
	Kharif 2009	Rabi 2009-10	Kharif 2009	Rabi 2009-10	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					

14.E. Utilization of KVK funds during the year 2009-10 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	4100000		4958396
2	Traveling allowances	100000		98635
3	Contingencies	900000		
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	230000		288736
B	POL, repair of vehicles, tractor and equipments	170000		170097
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	100000		101685
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	115000		107245
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	158000		140979
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	42000		19220
G	Training of extension functionaries	25000		26127
H	Maintenance of buildings	0		0
I	Establishment of Soil, Plant & Water Testing Laboratory	0		0
J	Library	10000		5988
TOTAL (A)		6070000		5917108
B. Non-Recurring Contingencies				
1	Works	1100000		0
2	Equipments including SWTL & Furniture	100000		0
3	Vehicle (Four wheeler/Two wheeler, please specify)	-		-
4	Library (Purchase of assets like books & journals)	-		-
TOTAL (B)		1200000		0
C. REVOLVING FUND		100000		665057
GRAND TOTAL (A+B+C)				

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2007 to March 2008	137300.18	1127865	1055709	209456.18
April 2008 to March 2009	209456.18	621455	648430	182481.18
April 2009 to March 2010	182481.18	562853	665057	80277.18

PART XV - OTHERS

15. a. Farmers Field School on Groundnut IPM (2009 – 10)

One successful farmers field school (FFS) was conducted on groundnut IPM at North Poigai Nallur in Nagapattinam district during Dec. 2009 to Mar. 2010. A total of 30 farmers participated in the programme and they were taught and trained by 14 regular classes. The objective of the programme was

1. To explore and educate the groundnut farmer with latest technologies on sustainable groundnut production.

The participated farmers were trained to identify major pest/ disease and they have learned to fix Economic threshold level (ETL) for major pests. They were also learned how to control the pests/disease in right time by identifying and using proper IPM tool. The result revealed that they were all satisfied with adoption of new techniques in groundnut pest management.

Crop	Thematic area	Technology demonstrated	Season and year	Area (ha)	No. of. farmers (demonstrated)			Reason of shortfall in achievement
					SC/ST	Other	Total	
Groundnut	IPM	FFS on Groundnut	Dec.2009 – Mar.2010	10ha	-	30	30	-

Details of farming situation:

Crop	Season	Farming Situation	Soil type	Status of Soil			Prev. Crop	Sowing date	Harvest date	Seasonal rainfall	Rainy days
				N	P	K					
Groundnut	Karthigai pattam	Garden land	Sandy Soil	High	Low	Low	vegetables	20.12.09	31.03.10	Low / No rainfall	8 days

Performance of FFS

Crop	Technology demonstrated	Variety	No. of farmers	Area	Demo yield (kg/ acre)			Local check (kg/ acre)	% of increase	Date on parameter
					H	L	A			
Ground nut	FFS on IPM	Tmv 14	30	10	1288 kg/ acre	980	800	700 kg/ acre	12.5%	-

Economic Impact:

Average cost of cultivation (Rs./ha)		Average of gross return(Rs./ha)		Average of Net return (Rs./ha)		Benefit Cost	
Demo	Check	Demo	Check	Demo	Check	Demo	Check
3000	2000	7000	3800	4000	1800	2.3	1.9

Analytical review of component demonstration

Crop	Season	Component	Farming situation	Average yield (kg/ acre)	Local check (kg/ acre)	Percentage increase
Groundnut	Karthigai pattam	IPM & INM Packages	Garden land	900 kg/ acre	800 kg/ acre	11.1

Technical feed back:

S.No.	Technology	Feed back
1.	Gypsum application	All farmers were satisfied with application of gypsum on 20, 40 DAS.
2.	MN Mixture application	This component was new to the farmers as they were obtained more yield due to application of MN mixture.
3.	IPM for major insects	They were able to follow the procedure for IPM for control Spodoptera, leaf minor by seeing is believing technique.

Extension and training activities

S.No.	Activity	No. of activities	Date	No. of participated		Remarks
1.	FFS inauguration	1	31.12.09	30 M	5 (AAOs)	-
2.	'Insect Sceouting technique' and demonstration in identifying major pest /disease	1	14.02.10	30 M	10 AAOs	-
3.	Field day celebration	1	31.12.09	30 M	-	-

15. (b). Technology week

Krishi Vigyan Kendra, Sikkal has conducted Technology week to demonstrate, teach and exhibit latest agricultural and allied technologies to the farmers of Nagapattinam district. The programme was organized between 14.03.2010 and 18.03.2010 for five days and nearly 2130 farmers have participated in the programme. The function was inaugurated by Dr.P.Murugesu Boopathy, Vice chancellor, Tamil Nadu Agricultural University, Coimbatore. The inaugural function was attended by the Registrar of TNAU, Director of Extension Education, Director (Tamil Nadu Rice Research Institute), Senior Scientist from Zonal Directorate Zone VIII, Bangalore, Joint Director of Agriculture, Professor and Heads of near by TNAU Research Stations and KVK, State Government Officials, Bank Officials, AGM NABARD and nearly 780 farmers including progressive farmers.

Objectives:

The programme was conducted with the objective of bringing as many as interested farmers to one place where latest technologies are demonstrated and exhibited. The main aims of the function are

1. To create awareness on advance and latest technologies of agriculture and allied fields.
2. To encourage and motivate the farmers to go in for practicing advanced technologies.

Scope and Response:

The Technology week was conducted to popularize various advanced and latest agriculture and allied technologies to the farmers of the Nagapattinam district. “Seeing is believing” is the basic concept of conducting Technology week. Hence, demonstration of laser leveler, post hole digger, mobile sprinkler and low cost drip irrigation systems were conducted for the benefit of farmers. Following technical sessions were also conducted to enlighten knowledge level of the farmers.

A. Seminars:

Sl. No.	Day	Title of the Seminar	Names of key persons conducting seminars	Number of persons participated
1.	14.03.10	1. Role of TNAU in Agriculture development of Tamil Nadu.	Dr. P. Murugesu boopathy Vice chancellor, TNAU.	780
		2. Importance of sustainable Agriculture.	Th. A. Annathurai District Collector (incharge) Nagapattinam district.	
		3. State and Central Government schemes for agricultural development in Nagapattinam district.	Th.R.V.Karunakaran Joint Director of Agriculture Nagapattinam	
		4. Role of NABARD	Th. K. Venugopal Assistant General Manager	

			NABARD, Nagapattinam.	
		5. Horticultural activities in Nagapattinam.	Th. Ganesan Deputy Director of Horticulture	
		6. Nationalized Banks and their role in Agriculture development.	Th. Thanikachalam Lead Bank Manager IOB, Nagapattinam.	
		7. Experiences in organic farming.	Th.A.Ambalavanan Chairman, Agrl. Marketing Committee, Nagapattinam.	
2.	15.03.2010	1. Dairy animal management	Dr.R.Parthasarathi Professor (Rtd.)	300
		2. Integrated farming system	Tamil Nadu Veterinary and Animal Science University, Thiruvavur.	
		3. Coconut cultivation	Dr.S.Mohandoss Associate Professor (SS&AC)	
		4. Nursery Techniques in Coconut seedling production	Coconut Research Station Veppankulam, Pattukottai.	
3.	16.03.2010	1. Stall feeding goats rearing	Dr.N. Punniya moorthi Professor and Head	350
		2. Indigenous medicines in livestock management	University Training and Research Centre, TANUVAS, Thanjavur	
		3. Backyard Poultry rearing Techniques.	Dr.C.Thiyagarajan Assistant Veterinary Surgeon	
		4. Recent Advances in Turkey rearing.	Sikkal	
4.	17.03.2010	1. Activities of Indian Institute of Crop Processing Technology, Thanjavur	Mr.K. Srinivasan SRF, IICPT, Thanjavur.	350
		2. Participation of value added Products	Mr.R. Karthikeyan SRF, IICPT, Thanjavur.	

		3. Recent Advances in composite fish culture	Dr. G. Venkidasamy Assistant Director of Fisheries, Thiruvarur.	
		4. Fingerling production techniques		
5.	18.03.2010	1. Recent Advances in Vegetable cultivation	Dr. A. Ramesh kumar Assistant professor (Horticulture) ADAC&RI, Trichy	350
		2. Precision Farming		
		3. Microbes for sustainable agriculture	Dr. K.C. Gouthaman Professor & Head KVK, Sikkal	
		4. Agro Forestry and Environmental management.	Dr.R.Revathi Associate Professor(Forestry) TNAU, KVK, Sikkal	

B. Exhibition

Sl.No.	Day	No.of stalls	Name of Agencies displaying stalls	Number of farmers visited				
1.	14.03.2010 To 18.03.2010	1	Krishi Vigyan Kendra, Nagapattinam	14.03.2010 - 780(1 st day)				
		1	Vegetable Research Station, Palur					
		1	Coconut Research Station, Veppankulam					
2.		14.03.2010 To 18.03.2010	1	National Pulses Research Centre, Vamban	15.03.2010 - 300(2 nd day)			
			1	Indian Institute of Crop Processing Technology, Thanjavur				
			1	Tamil Nadu Rice Research Institute, Aduthurai				
3.			14.03.2010 To 18.03.2010	1	Escorts Tractors	16.03.2010 - 350(3 rd day)		
				1	TAFE Tractors			
				1	Mahindra Tractors			
4.				14.03.2010 To 18.03.2010	1	Punjab Tractors	17.03.2010 - 350(4 th day)	
					1	Jain Irrigation System		
					1	KB Irrigation System		
					1	Jayalakshmi Agencies		
					1	New Holland Tractors		
5.					14.03.2010 To 18.03.2010	1	Green Earth	
	1					Dept. of Forestry (extension), Nagapattinam		
	14.03.2010 To 18.03.2010					1	Dept. of Agriculture, Nagapattinam	

		1	Dept. of Agri. Engineering, Nagapattinam	18.03.2010 - 350(5 th day)
		1	Dept. of Horticulture, Nagapattinam	
		1	Farmers promoted by KVK - Back yard Poultry in cage system	
		1	Farmers promoted by KVK - Displaying of promising indigenous breeds for breeding	

C. Field visits

Sl.No.	Day	OFT/FLD Technologies disseminated to the farmers	Major feed back from the farm	Number of farmers participated
1.	1	Tractor drawn Laser leveler	Labour saving	780
		Tractor mounted post hole digger	Timely operation	
2.	2	Mobile sprinkler	Water saving	300
3.	3	Low cost drip irrigation system	Low cost	350

Following exhibition stalls of line departments, TNAU Research stations and Private companies were put up.

1. Vegetable Research Station, TNAU, Pallur.
2. Coconut Research Station, TNAU, Vepankulam.
3. National Pulses Research Centre, TNAU, Vamban

4. Tamil Nadu Rice Research Institute, TNAU, Aduthurai.
5. Indian Institute of Crop Processing Technology, Thanjavur.
6. Department of Agriculture, Nagapattinam.
7. Department of Horticulture, Nagapattinam.
8. Department of Agricultural Engineering, Nagapattinam.
9. Department of Forestry, Nagapattinam.
10. Krishi Vigyan Kendra, Sikkal.
11. Farmers stall on Promising Indigenous goat type
12. Farmers stall on Backyard Poultry
13. Jayalakshmi Agency, Myladuthurai
14. Escorts Tractors, Nagapattinam.
15. Punjab Tractors, Nagapattinam.
16. TAFE Tractors, Nagapattinam.
17. New Holland Tractors, Nagapattinam.
18. Mahindra and Mahindra Tractors, Nagapattinam.
19. Jain Irrigation Systems, Trichy.

20. KB Irrigation Systems (Low cost Drip), Trichy

21. Green Earth (Mobile Sprinkler), Villupuram

Farmers visited the stalls were given with pamphlets, brochures and given explanation about the technologies. Farmer's addresses were also collected by staff in the stall for further follow up action.

A book on 'microbes for sustainable agriculture' in tamil was released with partial assistance of NABARD during inauguration by the Vice-chancellor of Tamil Nadu Agricultural University and were distributed to the farmers.

Demonstration of laser leveler and post hole digger attracted the farmers attention in the opening day. Mobile sprinkler and low cost drip system for vegetable farmers created enthusiasm among the farmers to increase cropping intensity by carrying out cultivation during water scarce period. The promising and indigenous goat types created very good awareness in cross breed development among the farmers. Growing 30 layer birds in cage was the star attraction of the function as backyard poultry.

The exhibition and demonstration were appreciated by the VIPs and the farmers. About 2130 farmers from different parts of this district participated and were much impressed with the activities.

SUMMARY FOR 2009-10

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Area (ha)
Integrated Nutrient Management	Black gram (Pulses)	Nutrient management for rice fallow pulses	5	1
	Rice	Enriched Zinc sulphate for zinc deficiency in rice	5	1
	Rice	Effect of liquid biofertilizer in maximizing yield	5	1
Varietal Evaluation Integrated Pest Management	Ragi	Ragi as alternate crop in summer	3	0.5
	Tomato	Bio intensive management of fruit borer in tomato	5	0.2
	Cashew	IPM for tea mosquito bug in cashew	5	1
Integrated Crop Management	Vegetable	Humic acid and vermiwash on growth and yield of vegetables like chillies /tomato	5	0.1
	Vegetable (Gourds)	Pole beans mixed with bitter gourd / Snake gourd and lablab in pandal	5	0.2
Integrated Disease Management			0	
Small Scale Income Generation Enterprises				
Weed Management	Vegetable	Mulching for weed control and moisture conservation	3	0.2
Resource Conservation Technology				
Farm Machineries				

Integrated Farming System				
Seed / Plant production				
Value addition				
Drudgery Reduction				
Storage Technique				
Others (Pl. specify)				
Total			39	5.2

II. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops

Thematic areas	Crop	Name of the technology refined	No. of trials
Integrated Nutrient Management			
Varietal Evaluation			
Integrated Pest Management			
Integrated Crop Management			
Integrated Disease Management			
Small Scale Income Generation Enterprises			
Weed Management			
Resource Conservation Technology			
Farm Machineries			
Integrated Farming System			
Seed / Plant production			
Value addition			
Drudgery Reduction			
Storage Technique			

III. FRONTLINE DEMONSTRATION

Oilseeds:

Frontline demonstrations on oilseed crops

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)			
						Demonstration			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
						H	L	A										
Groundnut	Yield maximization	INM and IPM	-	12	12	5	17.2	14.8	16.2	21.21	7566	56700	49134	7.49	5161	35000	29839	6.78
Sesamum	ICM	Improved package of practices	-	12	12	5	9.5	6.3	7.7	25.20	3500	15400	11900	4.40	2950	12300	9350	4.16
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

Pulses

Frontline demonstration on pulse crops

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)			
						Demonstration			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
						H	L	A										
Blackgram	ICM	Improved package of practices	-	10	10	3.37	1.70	2.44	1.56	56.4	7000	18300	11300	2.61	4800	11700	6900	2.43
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

Cotton

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)						
						Demonstration	Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR			
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

Medicinal and aromatic			-															
			-															
Fodder	Producing green fodder to increase the milk yield of milch animals	Popularization of CO4 C/N fodder grass	-	10	0.2	45.5t												
			-															
Plantation	Yield maximization	Management of micro nutrient disorder in coconut to overcome shedding of buttons & malformation	-	10	1 (200 trees)	136 Nuts / tree	93 Nuts / tree	46.23			110	680	570	6.18	65	279	214	4.29
			-															
Fibre			-															
			-															
Others (pl.specify)	Popularization as alternate feed	Popularizing azolla as feed for animals & fish	-	20	0.08	27.5 kg	-	-			11	30	19	2.72	-	-	-	-
	New introduction	Popularization of Grain Amaranth	-	1	0.2	16.25	-	-			12500	29375	16875	2.35	-	-	-	-
		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

Others (pl.specify)																		
		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

Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)		
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return
Common carps																	
	Alternate income	Sea fish (Sea bass - Lates calcarifer) culture in inland fresh water	-			165 kg	120 kg	37.5			5000	32400	27400	6.48	5000	12000	7000
Sea bass				2	2												
Mussels																	
Ornamental fishes																	
Others (pl.specify)																	
			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

Other enterprises

Category	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.) or Rs./unit				*Economics of check (Rs.) or Rs./unit				
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
Oyster mushroom																		
Button mushroom																		
Vermicompost																		
Sericulture																		
Apiculture																		
Others (pl.specify)																		
	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

Women empowerment

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

Farm implements and machinery

Name of the implement	Crop	Name of the technology	No. of KVKs	No. of Farmer	Area (ha)	Filed observation (output/man hour)	% change in major parameter	Labor reduction (man days)	Cost reduction (Rs./ha or Rs./Unit ect.)
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IV. Training Programme

Farmers' Training 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
Crop Production										
Weed Management										
Resource Conservation Technologies	1	62	23	85	-	-	-	62	23	85
Cropping Systems	1	30	-	30	-	-	-	30	-	30
Crop Diversification	1	12	-	12	-	-	-	12	-	12
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management	4	249	9	258	-	-	-	249	9	258
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising	3	98	2	100	-	-	-	98	2	100
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation	1	20	-	20	-	--	-	20	-	20
Others (pl.specify)	1	15	-	15						

Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)	1	20	11	31				20	11	31
Total	5	193	19	212				193	19	212

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													
1.a.	Increasing production and productivity of crops													
1.b.	Commercial production of vegetables													
2	Production and value addition													
2.a.	Fruit Plants													
2.b.	Ornamental plants													
2.c.	Spices crops													
3.	Soil health and fertility management													
4	Production of Inputs at site													
5	Methods of protective cultivation													
6	Others (pl.specify)													
6a.	Afforestation & Environmental management	15	261	372	633					261	372	633		
6b.	Bamboo cultivation	1	300	-	300					300	-	300		
7	Post harvest technology and value addition													
7.a.	Processing and value addition													
7.b.	Others (pl.specify)													
8	Farm machinery													
8.a.	Farm machinery, tools and implements													
8.b.	Others (pl.specify)													
9.	Livestock and fisheries													
10	Livestock production and management													
10.a.	Animal Nutrition Management													
10.b.	Animal Disease Management													
10.c.	Fisheries Nutrition													
10.d.	Fisheries Management													
10.e.	Others (pl.specify)													
11.	Home Science													
11.a.	Household nutritional security													
11.b.	Economic empowerment of women													
11.c.	Drudgery reduction of women													
11.d.	Others (pl.specify)													
12	Agricultural Extension													
12.a.	Capacity Building and Group Dynamics													
12.b.	Others (pl.specify)													
	Exhibition cum seminar on FSC	1	635	65	700					635	65	700		
	Farmers day exhibition	1	2690	310	3000					2690	310	3000		
	Technology week	1	2004	126	2130					2004	126	2130		
	Total	19	5890	873	6763					5890	873	6763		

V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services				
Diagnostic visits	23	52	-	52
Field Day	1	12	-	12
Group discussions				
Kisan Ghosthi				
Film Show				
Self -help groups				
Kisan Mela				
Exhibition	3	5830	-	5830
Scientists' visit to farmers field	57	57	-	57
Plant/animal health camps				
Farm Science Club	3	96	-	96
Ex-trainees Sammelan				
Farmers' seminar/workshop	1	300	-	300
Method Demonstrations	1	20	-	20
Celebration of important days				
Special day celebration				
Exposure visits	3	110	-	110
Others (pl.specify)			12	2142
Technology week	1(5 days)	2130		
Total	93	8619	12	8619

Details of other extension programmes

Particulars	Number
Electronic Media	
Extension Literature	14
News Letter	2 issues (200 nos)
News paper coverage	21
Technical Articles	-
Technical Bulletins	1
Technical Reports	-
Radio Talks	6

TV Talks	2
Animal health amps (Number of animals treated)	-
Others (pl.specify) (Books)	4
Total	50

PRODUCTION OF SEED/PLANTING MATERIAL

Production of seeds by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Paddy (Grain)	-	12084 kg	124540	-
	Paddy (TFL)	CO (R) 48	2500 kg	45000	-
Oilseeds					
Pulses					
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds					
Fiber crops					
Forest Species					
Others					
Total			14584	169540	

Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Number	Value (Rs.)	Number of farmers
Commercial	Amaranthus	Swarna	175 bundles	525	-
Vegetable seedlings					
Fruits					
Ornamental plants					
Medicinal and Aromatic					
Plantation					
Spices					
Tuber					
Fodder crop saplings	Fodder grass slips		1950 slips	495	-
Forest Species	Casuarina	Junghuhniana	227 nos	454	-
	Thonless prosopis	Thonless	25 nos	100	-
Others	Egg	layers	4250 nos	9775	-
Total				11349	

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents	Vermi compost	1000 kg	4000	-
	Cocopeat	2000 kg	4000	-
Others				
Total		3000 kg	8000	

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total				

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil				
Water				
Plant				
Manure				
Others (pl. specify)				
Total				

VIII. SCIENTIFIC ADVISORY COMMITTEE**Number of SACs conducted**

Not yet conducted for the period April 09 – March 2010

IX. NEWSLETTER**Number of issues of newsletter published**

2

X. RESEARCH PAPER PUBLISHED

Number of research paper published

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.)

XII. DETAILS ON HRD ACTIVITIES

A. HRD activities attended by KVK staff

Name of the staff	Title of the training programme	Institute where attended	Date
Dr. T.Elaiyabharathi Dr. G. Malathi Dr. K. Sivakumar	KVK orientation training programme	TNAU, Coimbatore	21.01.10 & 22.01.10
Dr. K. Sivakumar	Transfer of Technology by E- extension	TANUVAS, Chennai	16.02.10 to 18.02.10
R. Vedharathinam	Drip and fertigation system	TNAU, SAMETI, Coimbatore	22.02.10 to 24.02.10
Dr. R. Revathi	IFS for sustainable livelihood of farmers	KVK, Namakkal, (TANUVAS)	23.02.10 to 25.02.10
Dr. T.Elaiyabharathi Dr. G. Malathi Dr. K. Sivakumar	Orientation programme	Bijapur, Karnataka	23.02.10 to 26.02.10
V.Gnanabharathi	Market led Extension	TNAU, Coimbatore	02.03.10 to 06.03.10
Dr. T.Elaiyabharathi Dr. G. Malathi Dr. K. Sivakumar	Orientation cum interactive workshop	TNAU, Coimbatore	08.03.10 to 12.03.10
Dr. J. John Gunasekar	HRD training on team building	KKID, Coimbatore	17.03.10 to 21.03.10
Dr. T.Elaiyabharathi Dr. G. Malathi	HRD training on team building	KKID, Coimbatore	25.03.10 to 27.03.10

Dr. K. Sivakumar	HRD training on team building	KKID, Coimbatore	29.03.10 to 31.03.10
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