ANNUAL REPORT

2010-11

(APRIL 2010 MARCH 2011)

KRISHI VIGYAN KENDRA
AGRICULTURAL COLLEGE & RESEARCH INSTITUTE,
TAMIL NADU AGRICULTURAL UNIVERSITY
MADURAI 625 104.

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 Tamil Nadu Agricultural University MADURAI – 625 104.	Office **0452 - 2422955**	FAX **0452 - 2422955**	**kvkmdu@tnau.ac.in**	www.kvkmdu.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		
Agricultural College & Research Institute, Madurai. **Tamil Nadu Agricultural University**	0452-2422956	0452-2422785	deanagrimdu@tnau.ac.in	www.tnau.ac.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. S.KUMAR ,Ph.D Programme Coordinator 101, Swami vivekananada nagar, Sambakulam, K.Pudur Madurai -7	**0452-2567194**	**9994974437**	kumarhort@rediffmail.com

1.4. Year of sanction: March 2004

1.5. Staff Position (as 31st March 2011)

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.S.Kumar	Programme Cordinator Horticulture	M	Horticulture	Ph.D	37400-67000+GP10000	57290	9.5.07	Permanent	BC
2	SMS	Dr.N.S.Venkataraman	SMS Agronomy	M	Agronomy	Ph.D	37400-67000+GP10000	61910	9.5.08	Permanent	BC
3	SMS	Dr.G.Srinivasan	SMS Entomology	F	Entomology	Ph.D	15600+39100+ GP6000		9.7.10	Permanent	BC
4	SMS	Dr.K.P.Vanetha	SMS Agrl Extension		Agrl. Extension	Ph.D	15600+39100+ GP6000	24850	30.12.09	Permanant	SC
5	SMS	Dr. C.Ravindran	SMS Horticulture	M	Horticulture	Ph.D	15600+39100+ GP6000	24850	30.12.09	Permanent	BC
6	SMS	Dr.S.Kamalasundari	SMS Home Science	F	Home Science	Ph.D	15600+39100+ GP6000	24850	13.4.10	Permanent	BC
7	SMS	Er.V.Palaniselvam	SMS Agrl. Engg.	M	Agrl. Engineer	M.sc(Bio energy)	15600+39100+ GP6000	24320	15.3.06	Permanent	SC
8	Programme	Ms.S.Maheswari	Program	F	Forestry	M.sc(Forestry)	9300-	16000	6.6.07	Permanent	BC

	Assistant(Lab Tech.)/T-4		Assistant Forestry				34800+GP4400				
9	Programme Assistant (Computer)/ T-4	G.Karthik	Programme Assistant (Computer)	M	Computer science	B.C.A.,	9300-34800+GP4400	15070	4.12.08	Permanent	BC
10	Programme Assistant/ Farm Manager	Tmt.A.M .Fathima Gani	Agronomy	F	Agrl. Extension	M.sc (Agronomy)	9300-34800+GP4400	16000		Permanent	BC
11	Assistant	F.Baskaran	Superintendent	M		-	9300-34800+GP4800	19480	31.10.07	Permanent	OC
12	Jr. Stenographer	T.Gunaseeli	Assistant	F		-	5200-20200+GP2400	12320	17.4.08	Permanent	BC
13	Driver	N.DharmaPerumal	Driver	M		-	5200-20200+GP2000	9610	16.4.08	Permanent	MBC
14	Driver	P.Suresh Babu		M		-	5200-20200+GP2000	12520	8.5.08	Permanent	MBC
15	Supporting staff	P.Prema	PUSM	F		-	4800-10000+GP 1400	8260	16.4.08	Permanent	BC
16	Supporting staff	R.Rajendran	PUSM	M		-	4800-10000+GP 1400	8550	16.4.08	Permanent	BC

1.6. Total land with KVK (in ha)

S. No.	Item	Area (ha)
1	Under Buildings	0.05
2.	Under Demonstration Units	5
3.	Under Crops	21
4.	Orchard/Agro-forestry	-
5.	Others	-

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	10.3.2008	548.5 Sq.m	43.86	-	-	-
2.	Farmers Hostel	ICAR	15.4.2008	305 Sq.m	26.75	-	-	
3.	Staff Quarters	ICAR	15.04.2008	162.33 Sq.m	31.50			
	1			.				
	2							
	3							
	4							
	5							
	6							
4.	Demonstration Units	ICAR						
	1 Mushroom					April,2011		To be completed
	2							
	3							
	4							
5	Fencing	ICAR				April, 2011		To be completed

6	Rain Water harvesting system							
7	Threshing floor							
8	Farm godown							
9								
10								

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep Mahindra Bolero LX	17.11.2004	4,99,976	1,08,916	Good condition
Tractor, Mahindra Model 575D I45 HP Boomi Putra	3.1.2005	4,99,999		Good condition
Two wheeler-Bike Hero Honda CD DLX	2006	40,000	55,942	Good condition
Two wheeler-Bike Honda Activa	2009	50,000	8601	Good condition

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Slide projector with accessories	11.5.05	24640	Good condition
OHP with accessories	11.5.05	24850	Good condition
Toshiba ES 160 copier	11.5.05	75,000	Good condition
Computer with accessories	11.5.05	74950	Good condition
Camcorder	30.3.06	20000	Good condition
Lap top computer	30.3.07	46,000	Good condition
LCD	30.3.07	53,500	Good condition
Furniture	30.3.07	4 lakhs	Good condition

1.8. A). Details SAC meeting conducted in 2010-11 –

Sl. No	Date	Major recommendations of SACs which are to be implemented during 2011-12
1	13-09-10	A comparative study on cono weeder in machine planting and marker planting has to be made Enrolling membership in National Bee Board has to be arranged for honey bee bearers. Popularizing coconut tree climber for extension personnel Promoting green fodder cultivation through FLD programme. Mechanization in rice farming can be promoted Success stories and latest technologies can be broadcasted through AIR.

PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
	Wetland 1. Rice –Rice –Pulse 2. Rice- Rice-Fallow

	3. Rice (Single Crop)-Fallow **Garden land** 1. Sugar Cane Planted Crop-Sugarcane Ratoon –Rice 2. Banana 3. Brinjal, Onion and Chillies **Dry land** 1. Mixed cropping of cotton and pulses 2. Millets 3. Fodder Pulses with lab lab

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

S. No	Agro-climatic Zone	Characteristics
1.	**Southern Plateau and Hill Region**	The climate of the zone is warm and dry. The rain is depends on North East Monsoon. Mean Annual Rainfall of this Zone is 850 mm. The soil type is vertisol and alfisol

S. No	Agro ecological situation	Characteristics
1	Wet and dry ecosystem	Wet ecosystem mainly depends on canal and well irrigation. Dry ecosystem is mainly depends on North East monsoon rainfall

KVK, AC& RI, Madurai is situated in the Periyar- Vaigai command area. This region is located in the southern agro-climatic zone of Tamil Nadu. The geographical extent of Madurai is 3741.73 sq.km accounting for 2.9% of the geographical area of Tamilnadu State. There are 2 Revenue divisions and 13 Blocks in the district. Madurai district is classified under **Southern Plateau and Hill Region**, among the 13 agro climatic zones in the country. Normally tropical climate prevails over the District without any sharp variation. The average annual rainfall of the District is 950 mm. The major portion of the rainfall is received during North – East Monsoon. The district is basically agrarian and Agriculture is the main occupation. The land under forest (50452 ha), gross cropped Area (138055 ha), gross irrigated area to gross cropped are (48%) and number of tanks stood at 13,616 and gross area irrigated 69,690 ha. Out of 2.48 lakh dairy animals in the district, white and black cattle stood at 2.15 and 0.33 lakh respectively.

By virtue of certain basic infra structural facilities, the district offers ample scope for various type of economic activities , prominent among them being in the field of textiles, readymade garments , bakery units, floriculture, dairying etc.

2.3 Soil type/s

The types of soil available in the district are thin red, deep red, red soil, black and red sandy. Considering mineral resources, lime stone deposits, granite etc., are available in this district

S. No	Soil type	Characteristics	Area in ha
1.	Pilamedu (clay soil)	Deep, moderately well drained, fine textured soils with clayey surface , occurring on flat to very gently sloping lands	74,464
2.	Vylogam (Sandly clay loam)	Deep, moderately well drained, moderately coarse textured with sadly loam to sandy clay loam surface, occurring on flat to gently sloping lands	66,885
3.	Palaviduthi (Sandly clay loam)	Very deep, moderately well drained to well drained, sandy loam to sandy clay loam surface, occurring on gently to moderately undulating lands	64,439
4.	Anaiyur (Sandly clay loam)	Very deep, poorly drained, moderately fine textured with sandy clay loam surface occurring on nearly flat to gently sloping lands	24,343

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

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
	Rice	56,879	1,94,000	3473
	Sorghum	1078	2048	1978
	Maize	1471	5000	3452
	Cumbu	5703	10,835	1927
	Pulses	9590	4315	450
	Groundnut	6254	11882	1911
	Cotton	10432	4381	420
	Sugarcane	3067	299000	97600
	Fruits			
	1. Banana	2833	127464	47000
	Vegetables			
	1 Onion	377	3393	9000
	2.Brinjal	1045	10450	10000
	3.Bhendi	215	1298	6000
	4.Tomato	164	5740	35000
	Spices and condiments			
	1.Chillies	724	362	506
	2.Coriander	500	190	385

source: JDA Office, Madurai

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April '10	54.5	37.8	24.5	80.0
May'10	178.4	36.8	24.9	79.0
June '10	28.4	36.6	25.7	78.0
July'10	90.4	34.9	25.3	76.0
August '10	41.0	34.4	25.6	70.0
September'10	144.8	33.8	24.4	80.0
October'10	102.4	33.4	24.1	81.0
November'10	355.0	29.0	23.1	89.0
December'10	130.8	28.0	21.8	87.0
January'11	5.6	29.14	21.0	85.0
February'11	82.0	30.9	21.1	87.0
March'11	-	34.0	22.4	87.0

Source : AC&RI Madurai.

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

Category	Population	Production	Productivity
Cattle			
Crossbred	226507	155964 t milk	1.5
Indigenous			
Buffalo	12380	13628 t milk	0.9
Sheep			
Crossbred	216416	-	-
Indigenous			
Goats	238588	-	-
Pigs	3260	-	-
Crossbred			
Indigenous			
Rabbits			
Poultry			
Hens	685529	171.165 lakhs eggs	
Desi			
Improved			
Ducks			
Turkey and others			

Category	Area (ha)	Production (t)	Productivity
Fish	-	-	-
Marine	-	-	-
Inland	142.73	217.5	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

source : TANUVAS, Madurai

2.7 District profile has been prepared and submitted : Yes

2.8 Details of Operational area / Villages

Sl.No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Thirumangalam	Thirumangalam	Kokkulam	6	Banana	Pest and disease problem Low yield Less remunerative price	IPM
2	Usilampatti	Usilampatti	vallanthur	4	Rice	Delay in release of canal water Weeding through weeders Non availability of laborers Less profit	Farm mechanization Machine operated weeders Alternative crops
	Usilampatti		Nadumuthalaikulam Poochampatti Ammankovilpatti	8	Vegetables	Less remunerative price	Storage problem
	Thirumangalam	Thirumangalam	Vikkiramangalam Sengampadai kallupatti Karisakalam patti	6	Pulses	Uncertain rain fall	Seed hardening and seed treatment Use of mini mobile sprinkler
						Under employment during prolonged lean season	Income generating activities

			Royapalayam Achampatti Sengampadai kallupatti	8	Cotton	Low yield and non availability of labourers	Integrated crop management practices Hybrid cotton Farm mechanization
			Kokulam Kinnimangalam Melakal	6	Vegetables	Less remunerative price Storage problem	Precision farming Storage methods
3	Vadipatti	Vadipattti	Kattakulam	4	Rice	Non availability of hybrid rice Non availability of labourers Less profit	Introduction of hybrid rice Farm mechanization Bamboo as an alternative crop
			Cholavandhan	6	Banana	Low yield Less remunerative price Under employment of labourers	GAP in banana Banana fiber production technology
4	**Melur**	Melur	Navinipatti Poonsuthi Thiruvathavur	4	Groundnut	Less yield	ICM in ground nut
					Vegetables	Less remunerative price	Precision farming
5	Madurai South	Thiruparankundram		3	Milch animals Poultry	Poor health Mortality Poor milk and egg yield	Treating with salt licking cake oral vaccination for poultry

2.9 Priority thrust areas

S. No	Thrust area
1.	Farm mechanization in rice
2.	Introduction of bt cotton and rice hybrid
3.	Storage in vegetables
4.	ICM in pulses
5.	Pest and disease problems in Rice, vegetables and banana
6.	Fodder development
7.	ICM in cotton
8.	ICM in fruit crops banana and Mango
9.	IPM for mealy bug
10.	Vaccination in poultry
11.	Value added products in milk
12.	Incubator for egg production
13.	Post harvest and marketing
14.	Popularization of tree spp
15.	Management of infertility in cows
16.	Nutrition management for cattle
17.	Introducing turkey bird

PART III - TECHNICAL ACHIEVEMENTS

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

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
8	8	95	95	16	16	144	144

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**
75	75	3050	3050	28	28	1400	1400

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	**Achievement**	**Target**	**Achievement**
Blackgram 400 kg	Balck gram 150 kg	1,00,000	4000 vegetables seedlings
Gingelly 100 kg	Gingelly 100kg		
Cumbu napier grass slips 5000	CN grass slips 1300 slips		
Redgram	Redgram 85 kgs		

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

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)	No of Training (Youths)	No of Training (extn pers)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
													No.	Kg
1.	Mechanization in rice	Rice	High input cost Non availability of labourers Less profit	Aseessing efficacy fof refined wetland weeder in SRI	Mechanization in rice	5	1	3	3					
2	Introduction of hybrids	Bt cotton rice hybrid tomato	Lack of awareness of hybrid Low yield	Assessing the bt cotton in rainfed ecosystem Assessment of tomato hybrids for summer season	Popularisation of CORH 3 rice hybrid	**3**	2	2	1					

3	ICM in pulses	Redgram	1.Uncertain rain fall 2.Non availability of improved varieties 3.Low yield	-	Popularizing Redgram var vamban 3 in rainfed ecosystem Poularisation of mini mobile sprinkler system	3	2	4	3					
3	Storage in vegetables	onion	Loss of produce Low income	Assessment of Panipet storage for onion for small and marginal farmers Packaging technique to extend the shel life of bitte gourd	Popularizing fruit and vegetables preservator	3	1							
4	IPM	Vegetable Crops 1.Bhendi 2.Banana	Higher pest incident Low yield Water shortage Labour crisis	Mealy bug management in bhendi Management banana wilt management		5	4	6	5					
5	Fodder development	Desmanthus	Non availability of legume fodder Poor milk yield		Popularizing legume fodder in existing cumbu napier grass									

6	ICM	Banana	Poor yield		Popularsing folia spray of Sop in Banana	4	3	2	2					
7	ICM	Mango	low yield		Popularization of baclobutrazol spray in Mango	3	2	2	1					
7	ICM	cotton	Low yield and non availability of labourers		Integrated crop management practices	5	3	6	4					
8	IPM	Rice	Leaf folder,stem borer and ear head problems		Management of earhesd bug by usig KKM 1 Acromus calamus Management leaf folder and stem borer by using new insecticide molecules	4	2	3	2					
9	ICM	Casurina	Low income		Popularization of Casiarina junghuhniana in PVC area	3	1	3	2					

10	Animal husbandry	Poultry	Raniket disease problem Low income Low hatching %		Popularisation of oral pellet vaccination against raniket disease in dei chicken Popularising turkey poulted bird Popularizing community incubator for backyarddesi chicken and turkey farmers	4	1	3	2					
11	Animal husbandry	Dairy animals	Low body wt poor health poor fertility of animals	Management of infertility in cross bred cows	Popularisation of salt lick mineral cake for calves.	3	2	2	1					
12	Value added products	milk	Poor income		Popularization of yoghurt preparation from milk	5	3	3	2					

3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/enterprise	No.of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1	Assessment Panipet storage in onion	NHRDF	onion	5	-	4	
2	Assessment of tomato hybrids for summer seasons	TNAU	tomato	5	-	5	
3	Introduction of bt cotton in rainfed ecosystem	TNAU	Cotton	5	-	6	
4	Management of mealy bug in bhendi	TNAU	Bhendi	5	-	4	
5	Management of banana wilt	TNAU	Banana	3		5	
6	Management of infertility cross bred cows	TANUVAS	Cows	50	-	6	
7	Assessing efficacy of refined wetland weeder	TNAU	rice	5	-	5	
8	Packaging technique to extend the shelf life of bittergourd	HSC	Bittergourd	10	-	4	
9	Popularization of CORH 3 rice hybrid	TNAU	Rice	10	10	5	
10	Popularizing Redgram var vamban 3 in rainfed ecosystem	TNAU	Redgram	10	10	6	
11	Popularizing legume fodder in existing cumbu napier grass	TNAU	Desmanthus	10	10	5	
12	Mechanization in rice	TNAU	Rice	10	10	6	
13	Popularsing foliar spray of SOP in Banana	TNAU	Banana	10	10	5	
14	Popularization of baclobutrazol spray in Mango	TNAU	Mango	10	10	4	
15	Management of rice earhead bug by usig KKM 1 Acromus calamus	TNAU	Rice	10	10	5	
16	Management rice leaf folder and stem borer by using new insecticide molecules	TNAU	Rice	10	10	4	
17	Popularizing fruit and vegetables preservator	CRIDA-ICAR	Vegatables	4	4	5	
18	Popularization of yoghurt preparation from milk	TANUVAS	milk	-	-	6	

19	Popularization of oral pellet vaccination against raniket disease in dei chicken	**TANUVAS**	poultry	-	**20**	**6**	
20	Popularization of salt lick mineral cake for calves.	**TANUVAS**	cows	-	**20**	**5**	
21	Popularizing turkey poulted bird	**TANUVAS**	poultry	-	**10**	**6**	
22	Popularizing community incubator for backyard desi chicken and turkey farmers	**TANUVAS**	Poultry	-	**3**	**4**	
23	Popularization of mini mobile sprinkler system	**TNAU**	pulses		**10**	**3**	
24	Popularization of Casuarinas junghuhniana in PVC area	**TNAU**	Casuarina		**10**	**5**	

3.B2 contd..

No. of farmers covered															
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**
5	-	**2**	-	**8**		**2**		**120**	**25**	**10**	**5**	-			
3	**2**	**2**	-	**7**		**3**		**75**	**15**	**15**	**10**				
4	**1**	**1**		**4**	**2**	**2**	**2**	**150**	**50**	**25**	**20**				
3	**2**		**1**	**5**		**5**		**175**	**25**	**50**	**30**				
3	-	-		**6**		**4**		**125**	**30**	**40**	**25**				
4	**3**	**3**		**4**	**2**	**4**		**100**	**50**	**50**	**30**				
3	**2**	**1**		**6**	**3**	**1**		**90**	**50**	**45**	**25**				
3	**7**	**1**		**5**	**4**	**1**		**120**	**75**	**35**	**25**				
				1	**3**			**145**	**35**	**42**	**30**				
				8	**6**	**3**	**3**	**90**	**60**	**35**	**20**				
				10	**5**	**5**		**35**	**20**	**35**	**20**				
				9	**3**	**8**		**125**	**85**	**65**	**75**				
				4	**6**			**135**	**65**	**70**	**45**				
				1	**2**			**120**	**100**	**45**	**30**				
				5	**2**	**3**		**95**	**35**	**25**	**75**				

PART IV - On Farm Trial

4.A1. Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management										
Varietal Evaluation				1		1				
Integrated Pest Management					1					
Integrated Crop Management										

Integrated Disease Management						1				
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique					1					
Mushroom cultivation										
Total										

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management										
Varietal Evaluation										
Integrated Pest Management										
Integrated Crop Management										
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries	1									
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique					1					
Mushroom cultivation										
Total										

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	1					
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)
Storage techniques	Onion	Assessment Panipet storage in onion	5	2
	Fruit and vegetable	Popularisation of Fruit and Vegetable Preservator	3	
Integrated Pest Management	Bhendi / Brinjal	Management of mealy bug in brinjal / brinjal	5	2
Integrated Crop Management	Cotton	Assessing the performance of Bt cotton I rainfed ecosystem	5	2
	Tomato	Assessment of tomato hybrids for summer seasons	5	2
Integrated Disease Management	Banana	Management of banana wilt	3	2
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.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	Rice	Assessing efficacy of refined wetland weeder	5	2
Integrated Farming System				
Seed / Plant production				
Value addition				
Drudgery Reduction				
Storage Technique	Birttergourd	Packaging technique to extend the shelf life of bittergourd	10	
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	calves	Management of infertility cross bred	50

		cows	
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
onion	Irrigated	Poor storage life	Assessment Panipet storage in onion	5	T1- Farmer's practice -Storing of onion at field under shade condition T2 – Recommended practice - Foliar spray of MH @2500 PPM 15 days before harvest. T3 – Alternative practice -Storing onion in a locally made up storage structures	Shelf life Shelf life Shelf life	1month 2-3months 5-6months	MH with Panipet type storage structure extended the onion storage life up to 6 months compared traditional method of storage	Providing bottom ventilation for free and faster air circulation to avoid formation of hot and humid pockets between the onion layers Increased storage life of onion up to 5-6 months then conventional method of storage(1-2months) Low cost structure for onion storage and maximum return when the price is high in the market due to storage of onion		

Tomato	Wet land eco system	Hybrid for summer season	Assessment of tomato hybrids for summer seasons		**T1**- Farmer's practice - No specific hybrids **T2** – Recommended practice- COTH 2 **T3** – Alternative practice - Testing of improved hybrids (US 618, Lakshimi 5005, US 4031)	Number of fruits /Plant Yield/ha Number of fruits /Plant Yield/ha Number of fruits /Plant Yield/ha	Lakshmi (20, 56t/ha) US 618 (12, 34t/ha) Co Th2 (33,62t/ha) US 4031 (52, 110t/ha) Lakshmi (20, 56t/ha) US 618 (12, 34t/ha)	The number of fruits/plant and yield were higher in US4031 when compared to other hybrids taken for evaluation	US 4031 performed better during summer than other hybrids Lakshmi NP5005, US 618, Co Th2		

Cotton	Dryland	Lees yield	Assessment of Bt cotton in rainfed ecosystem	5	T1-Sumangala T2- SVPR2 T3 -Bt cotton bunny	No. of Sympodia No of bolls Yield q/ha No. of Sympodia No of bolls Yield No. of Sympodia No of bolls Yield	12.0 12.0 7.0 11.0 12.5 7.2 14.5. 14.2 8.9	Bt bunny hybrid performs higher growth parameters and yield when compared to other varieties	Moisture stress will affect the growth and yield parameters of bt cotton		
Brinjal/Bhendi	Irrigated	Yield loss due to mealybug	Management of mealy bug in vegetables	5	**T1**- Indiscriminate use of Insecticides **T2**- Spraying of Chlorpyriphos 5ml/l followed by	Percentage infested plants Yield/ha BCR Percentage infested plants	Before treatment **32.6** After Treatment **25.4** **62.0** **1.67** Before treatment **34.5**	Mealybug incidence was reduced to a level of 20.3 % and 14.8 % respectively due to the application of Chlorpyriphos 5ml/l followed by Profenophos 2ml/l and Spraying of Neem oil + *Verticillium lecanii*	Plant mortality due to mealybug incidence was reduced		

					Profenophos 2ml/l **T3-** Spraying of Neem oil 30 ml/l+ *Verticillium lecanii* 1x 10^8 spores/ml	 Yield/ha BCR Percentage infested plants Yield/ha BCR	After Treatment **20.3** **83.0** **2.64** Before treatment **33.8** After Treatment **14.8** **87.0** **2.95**				
Banana	Irrigated	Yield loss due to panama wilt	Management of banana wilt	3	**T1-** Drenching of available fungicides **T2-** Corm treatment using	Percentage disease incidence Yield/ha BCR Percentage disease	Before treatment **34.5** After Treatment **28.3** **55.0** **1.5** Before treatment	Panama wilt of banana is reduced to a level of 19.4 % and 16.5 % respectively due to Corm treatment using Pseudomonas and application of Pseudomonas along with FYM + Capsule application with Bavistin on 3^{rd}, 5^{th}	Reduction in yield due to mortality of banana plants is reduced		

					Pseudomonas and application of Pseudomonas along with FYM. Capsule application with Bavistin on 3rd, 5th and 7th month of planting **T3**- Pseudostem injection of Bavistin @ 4ml/ tree and drenching of Bavistin (4ml/l of water) @ 2 litres/ tree	incidence Yield/ha BCR Percentage disease incidence Yield/ha BCR	**36.7** After Treatment **19.4** **72.0** **2.23** Before treatment **35.1** After Treatment **16.5** **78.0** **2.64**	and 7th month of planting and Pseudostem injection of Bavistin @ 4ml/ tree and drenching of Bavistin (4ml/l of water) @ 2 litres/ tree			
Dairy			Management of infertility cross bred cows	25	**T1**- Repeated artificial insemination **T2** – Estrus synchronization with PGF 2 alpha and fixed time A1 after 72 hours **T3** – Deworming , supplementation of mineral	Body weight and fertility status	25 cows were weighed initially wt 390 kg/cow	After deworming , supplementation of mineral mixture @ 50 g /day for a period of three months and tonophosphan injection is given which resulted in	The farmer was satisfied as the animal increase in body weight and fertility status was		

					mixture @ 50 g /day for a period of three months and injection of tonophosphan			animal increase of body weight ie 422 kg in 1 ½ months period and it was found that fertility status ,metabolism and milk production was improved in cows .	improved.		

Contd..

Technology Assessed	Production	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	16	17
Assessment of panipet storage in onion			
Technology option 1 (Farmer's practice)	-	-	
Technology option 2	-	-	
Technology option 3	-	-	
Technology option 4			
Assessment of Tomato hybrids			
Technology option 1 (Farmer's practice)	Lakshmi (20, 56t/ha)	140000	1.40
Technology option 2	Co Th2 (33,62t/ha)	155000	2.24
Technology option 3	US 4031(52, 110t/ha)	275000	2.75
Technology option 4			
Assessment of Bt Cotton			
Technology option 1	7.0 q/ha	10800	2.05
Technology option 2	7.2 q/ha	11400	2.12
Technology option 3	8.9 q/ha	14850	2.25
Management of mealy bug in Brinjal/bhendi			
Technology option 1 (Farmer's practice)	62.0 T/ha	1,94,000	1.67
Technology option 2	83.0 T/ha	3,01,000	2.64
Technology option 3	87.0 T/ha	3,25,000	2.95
Management of banana wilt			

Technology option 1 (Farmer's practice)	55.0 T/ha	1,19,000	1.5
Technology option 2	72.0 T/ha	2,05,000	2.23
Technology option 3	78.0T/ha	2,45,000	2.64
Management of infertility cross bred cows			
Technology option 1 (Farmer's practice)			
Technology option 2			
Technology option 3			

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

1.	Title of Technology Assessed	:	**Assessment of panipet storage in onion**
2.	Problem Definition	:	
3.	Details of technologies selected for assessment	:	Technology Option 1 Farmer's practice -Storing of onion at field under shade condition Technology Options 2 Recommended practice - Foliar spray of MH @2500 PPM 15 days before harvest. Technology Option 3 Alternative practice -Storing onion in a locally made up storage structures
4.	Justification	:	Using Low cost panipet onion storage, onion can be stored up to 5-6 months and fetch higher price in the market
5.	Source of technology	:	National Horticulture Research development Foundation(NHRDF) Pune, Maharashtra
6.	Production system and thematic area	:	To Improve shelf life of onion storage and reduce sprouting
7.	Performance of the Technology with performance indicators	:	MH with Panipet type storage structure extended the onion storage life up to 6 months compared traditional method of storage
8.	Feedback, matrix scoring of various	:	Providing bottom ventilation for free and faster air circulation

	technology parameters done through farmer's participation / other scoring techniques		to avoid formation of hot and humid pockets between the onion layers Increased storage life of onion up to 5-6 months then conventional method of storage(1-2months) Low cost structure for onion storage and maximum return when the price is high in the market due to storage of onion
9.	Final recommendation for micro level situation	:	This improved panipet type low-cost onion storage recommended for small and marginal farmers
10.	Constraints identified and feedback for research	:	Cost of bamboo is high
11.	Process of farmers participation and their reaction		Onion can be stored effectively for 5-6 months

1.	Title of Technology Assessed	:	**Assessment of Tomato hybrids**
2.	Problem Definition	:	
3.	Details of technologies selected for assessment	:	T1- Farmer's practice - No specific hybrids T2- Recommended practice- COTH 2 Hybrid for summer season T3- Alternative practice - Testing of improved hybrids (US 618, Lakshimi 5005, US 4031)
4.	Justification	:	Assessment best suited tomato hybrid for summer season and large scale cultivation
5.	Source of technology	:	
6.	Production system and thematic area	:	Irrigation system and identification of best tomato hybrid for summer season
7.	Performance of the Technology with	:	number of fruits/plant and yield were higher in US4031

	performance indicators		when compared to other hybrids taken for evaluation
8.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	US 4031 performed better than other hybrids Lakshmi NP5005, US 618, Co Th2
9.	Final recommendation for micro level situation	:	US 4031 recommended for summer season cultivation in Madurai district
10.	Constraints identified and feedback for research	:	-
11.	Process of farmers participation and their reaction		Tomato hybrid US4031 gave higher yield and fetch higher market prices

1.	Title of Technology Assessed	:	**Assessment of Bt Cotton**
2.	Problem Definition	:	Non availability of labour High cost of production Low yield
3.	Details of technologies selected for assessment	:	**Technology Option 1 : Farmer practice var. Sumangala** **Technology Option 2 : SVPR 2** **Technology Option 3 : Bt cotton Bunny**
4.	Justification	:	To increase the productivity of cotton
5.	Source of technology	:	TNAU
6.	Production system and thematic area	:	Dry and Improve the cotton production
7.	Performance of the Technology with performance indicators	:	Bt cotton recorded the higher yield through production of more sympodial branches , boll nos etc.

8.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Crop could not able to tolerate water stress under severe drought conditions
9.	Final recommendation for micro level situation	:	Bt cotton should be tested in multi locational areas.
10.	Constraints identified and feedback for research	:	To over come the water stress
11.	Process of farmers participation and their reaction		If there is no moisture stress, higher growth and yield can be obtained

1.	Title of Technology Assessed	:	**Management of mealy bug in Brinjal / bhendi**
2.	Problem Definition	:	Loss of plant vigour Stunted growth of the plant Yellowing of plants Reduction in yield
3.	Details of technologies selected for assessment	:	**Technology Option 1:** Indiscriminate use of Insecticides **Technology Option 2:** Spraying of Chlorpyriphos 5ml/l followed by Profenophos 2ml/l **Technology Option 3:** Spraying of Neem oil 30 ml/l+ *Verticillium lecanii* 1x 10^8 spores/ml
4.	Justification	:	Spraying of neem oil with *Verticillium lecanii* reduced the damage of mealybugs
5.	Source of technology	:	State Department of Agriculture, Tamil Nadu
6.	Production system and thematic area	:	Irrigated eco-system, Pest Management
7.	Performance of the Technology with performance indicators	:	Management of mealybug by counting the total number of healthy and affected plants before and after treatment
8.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Effective control was achieved
9.	Final recommendation for micro level situation	:	Management practices has to be adopted immediately after noticing the incidence
10.	Constraints identified and feedback for research	:	
11.	Process of farmers participation and their reaction	:	Mealybug was effectively managed

1.	Title of Technology Assessed	:	**Management of banana wilt**
2.	Problem Definition	:	Yellowing of leaves Cracking of petiole Browning, loss of plant vigour Death of plants Reduction in yield
3.	Details of technologies selected for assessment	:	**Technology Option 1:** Drenching of available fungicides **Technology Option 2:** Corm treatment using Pseudomonas and application of Pseudomonas along with FYM. Capsule application with Bavistin on 3rd, 5th and 7th month of planting **Technology Option 3:** Pseudostem injection of Bavistin @ 4ml/ tree and drenching of Bavistin (4ml/l of water) @ 2 litres/ tree
4.	Justification	:	Wilt incidence leads to reduction in plant population and in turn yield. So pseudostem injection with bavistin help to reduce the wilt incidence
5.	Source of technology	:	Crop Production Guide
6.	Production system and thematic area	:	Irrigation Ecosystem, Pest Management
7.	Performance of the Technology with performance indicators	:	Management of wilt by counting the total number of healthy and affected plants before and after treatment
8.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Effective control was achieved

9.	Final recommendation for micro level situation	:	Management practices has to be adopted immediately after observing incidence
10.	Constraints identified and feedback for research	:	
11.	Process of farmers participation and their reaction		Wilt was effectively managed

1.	Title of Technology Assessed	:	**Management of infertility cross bred cows**
2.	Problem Definition	:	Infertility cross bred cows
3.	Details of technologies selected for assessment	:	Technology Option 1: Repeated artificial insemination Technology Options 2 :Estrus synchronization with PGF 2 alpha and fixed time A1 after 72 hours Technology Option 3: Deworming , supplementation of mineral mixture @ 50 g /day for a period of three months and injection of tonophosphan
4.	Justification	:	To improve fertility in cross bred cows
5.	Source of technology	:	TANUVAS
6.	Production system and thematic area	:	To improve the body weight and fertility status in cows
7.	Performance of the Technology with performance indicators	:	This technology which resulted in animal increase of body weight in 1 ½ months period and it was found that fertility status ,metabolism and milk

			production was improved in cows .
8.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	fertility status was improved in cows
9.	Final recommendation for micro level situation	:	Can be tested in multi locational areas.
10.	Constraints identified and feedback for research	:	-
11.	Process of farmers participation and their reaction		The farmers was satisfied as the animal increase in body weight and fertility status was improved.

4.D1. Results of Technologies Refined On Farm Trial:

	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
	wet	Labour problem and high cost of cultivation	Assessing efficacy of refined wetland weeder	5	Modified existing power weeder	Weed control efficiency Yield Net return BCR	84 % 5.3 t/ha 27975 2.41	Weed control efficiency was achieved to the tune of 83 %, drudgery reduction and cost of production was also low	The weight of the machine should be reduced so as to operate the weeder easily	Weight of machine reduced through re arrangement of wheel base	In order to reduce the weight of the implement

	Garden land	Quicker Ripening	Packaging Techniques to Control ripening problem in bitter gourd	5	Modifying ethylene absorbent sachet	Extension of self-life	Increase in ripening period	Ripening takes place after 16 hrs of harvest for T1 after 18 hrs of harvest for T2 after 42 hrs of harvest for T3	Returns are high as ripening is delayed	Refinement done in preparing ethylene absorbent sachet.	Purafil sachet was used as it controls both ethylene release and moisture instead of silica gel where it controls only ethylene release different packaging materials	

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Technology Refined	Production t/ha	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Assessing efficacy of refined wetland weeder			
Technology option 1 Conoweeder)	4.8	22788	2.12
Technology option 2 (double row weeder)	5.4	29313	2.51
Technology option 3 (refined wet land weeder)	5.3	27975	2.41
Packaging technique to extend the shelf life of bittergourd	-	-	-
Technology option 1(Farmers practice)			
Technology option 2 (Packaging in polyethylene covers)	The cost is 50 paisa per kg for extending the ripening for 2 hrs		
Technology option 3 (Packaging in polyethylene covers with Purafil sachet))	The cost is Rupees 2.13 paisa per kg for extending the ripening for 26 hrs		

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 Assessed	:	**Assessing efficacy of refined wetland weeder**
2.	Problem Definition	:	Weeding operation in wet land paddy cultivation is more labour intensive and involves more cost. The availability of human labour is also problem during peak period of farm operations. Some farmers practicing using by manual operated conoweeder and rotary weeder in SRI cultivation. But farmers hesitate to use of these weeders due to heavy weight, singing in soil and low efficiency. When these weeders are used continuously by the labour, they feel pain in shoulder and hands.
3.	Details of technologies selected for assessment	:	**Technology Option 1** • Cono weeder **Technology Option 2** • Double row weeder **Technology Option 3** • Refined Wet land weeder designed by KVK Madurai.
4.	Justification	:	To reduce drudgery during peak period of farm operation
5.	Source of technology	:	TNAU
6.	Production system and thematic area	:	Wetland - Mechanical weeding in SRI cultivation
7.	Performance of the Technology with performance indicators	:	Weed control efficiency is achieved to the tune of 84 % thereby increasing yield was noticed
8.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	labour reduction plus cost of production reduced
9.	Final recommendation for micro level situation	:	Further modification has to be done to reduce the weight of the machine
10.	Constraints identified and feedback for research	:	
11.	Process of farmers participation and their reaction	:	The machine weight to be reduced

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1.	Title of Technology Assessed	:	**Packaging technique to extend the shelf life of bittergourd**
2.	Problem Definition	:	
3.	Details of technologies selected for assessment	:	**Technology Option 1** Storing harvested bitter gourd in dampened gunny bags **Technology Option 2** Storing the vegetable by grading in perforated Polythene covers **Technology Option 3** Storing the vegetable by grading in perforated Polythene covers and adding sachet of Purafil ethylene and moisture absorbent
4.	Justification	:	As Ripening is major problem in bittergourd farmers lose upto 30% of their produce. Hence a controlling measure is taught.
5.	Source of technology	:	H.Sc &RI
6.	Production system and thematic area	:	Wet and storage life of vegetables
7.	Performance of the Technology with performance indicators	:	Ripening takes place after 16 hrs of harvest for T1 after 18 hrs of harvest for T2 after 42 hrs of harvest for T3 There was decrease in breadth
8.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	-
9.	Final recommendation for micro level situation	:	Awareness on Use of Purafil sachet , or other ethylene absorbent sachet has to be done. Sorting, grading, and packing in small portion size will help in controlling bittergourd from ripening
10.	Constraints identified and feedback for research	:	Fine tuning of this research is needed for commercialization
11.	Process of farmers participation and their reaction	:	Found it quite useful as it controls ripening and fetches more income through extending storage life

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PART V - FRONTLINE DEMONSTRATIONS

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

Sl. No.	Category	Farming Situation	Season and Year	Crop /enterprise	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
1	Oilseeds	-												
2	Pulses	Dry land	Rabi,2010 Rabi,2010	Redgram greengram	VBN 3 VBN 2		ICM in pulses Stress Management	Seed treatment foliar spraying pulse wonder Poularisation of mini mobile sprinkler system	2 2	2 2	5 2	5 8	10 10	
3	Cereals	Wet land	Rabi,2010 Rabi,2010 Rabi.2010 Rabi,2010	Rice Rice Rice Rice	- BPT 5204 BPT 5204 BPT 5204	CORH 3	ICM Mechanization Pest Management Pest management	Popularisation of CORH 3 rice hybrid Mechanization in rice Management of rice earhead bug by usig KKM 1 *Acorus calamus* Management rice leaf folder and stem borer by using new insecticide molecules	4 2 4 4	4 2 4 4	2 2 2 3	8 3 8 7	10 05 10 10	
4	Millets													
5	Vegetables	wet	June 2010	tomato	lakshmi		Storage	Popularizing fruit and vegetables preservator	4	4	-	4	4	
6	Flowers													

7	Ornamental													
8	Fruits	wet	June 2010	Banana Mango			Nutrient management Nutrient Management	Foliar spray of Sop in Banana Baclobutrazol spray in Mango	4 4	4 4	3 2	7 8	10 10	
9	Spices and condiments													
10	Commercial													
11	Medicinal and aromatic													
12	Fodder	Wet land	Rabi,2010	Fodder crop	Desmanthus	CO4	Fodder development	legume fodder desmanthus as intercrop in existing cumbu napier grass	2	2	3	7	10	
13	Plantation													
14	Fibre													
15	Dairy			Milk calves			Yoghurt preparation Nutrition management	Yoghurt preparation from milk Salt lick mineral cake for calves.	20 20	20 20	8 6	12 14	20 20	
16	Poultry			Desi chicken Turkey bird Backyard			Disease management Poultry development	Oral pellet vaccination against raniket disease in dei chicken Popularizing turkey poulted bird	20 10	20 10	5 2	15 8	20 10	

				desi chicken			Poultry development hatching capacity	Popularizing community incubator for backyard desi chicken and turkey farmers	3	3	-	3		
17	Rabbitry													
18	Pigerry													
19	Sheep and goat													
20	Duckery													
21	Common carps													
22	Mussels													
23	Ornamental fishes													
24	Oyster mushroom													
25	Button mushroom													
26	Vermicompost													
27	Sericulture													
28	Apiculture													
29	Implements													
30	Others (specify)	wet	Rabi,2010	Casurina			Tree development	Popularization of Casuarinas junghuhniana in PVC area	1	1	2	3	5	

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

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
	Oilseeds												
	Pulses	Dry land	Rabi,2010 Rabi,2010	Redgram greengram	VBN 3 VBN 2		ICM in pulses Stress management	Seed treatment foliar spraying pulse wonder Poularisation of mini mobile sprinkler system	Rabi,2010	L	M	H	Milleta
	Cereals	Wet land	Rabi,2010 Rabi,2010 Rabi.2010 Rabi,2010	Rice Rice Rice Rice	- BPT 5204 BPT 5204 BPT 5204	CORH 3	ICM Mechanisation Pest Maagement Pest management	Popularisation of CORH 3 rice hybrid Mechanization in rice Management of rice earhead bug by usig KKM 1 Acromus calamus Management rice leaf folder and stem borer by using new insecticide molecules	Rabi,2010	L	M	H	Rice
	Millets												
	Vegetables	wet	June 2010	tomato	lakshmi		Storage	Popularizing fruit and vegetables preservator	June,2010	-	-	-	
	Ornamental												
	Fruit s	wet	June 2010	Banana Mango			Nutrition management	Foliar spray of Sop in Banana Baclobutrazol	June,2010 Sep-Oct	L L	M M	H	Banana --

								spray in Mango	2010			H	
	Spices and condiments												
	Commercial												
	Medicinal and aromatic												
	Fodder	Wet land	Rabi,2010	Fodder crop	Desmanthus	CO4-CN grass	Fodder development	legume fodder desmanthus as intercrop in existing cumbu napier grass	Rabi,2010	L	M	H	
	Plantation												
	Fibre												
	others	wet	Rabi,2010	Casurina			Tree development	Popularization of Casiarina junghuhniana in PVC area	Rabi,2010	L	M	H	

5.B. Results of Frontline Demonstrations

5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (t/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	Popularisation of CORH 3 rice hybrid		CORH3	Wet	10	4	6.8	5.9	6.1	5.4	13	24750	57950	33200	2.34	23900	51300	27400	2.14
	Management of rice earhead bug by usig KKM 1 Acromus calamus	BPT 5204		Wet	10	4	7.2	5.1	6.15	4.7	30.8	25300	55350	30050	2.18	22100	42300	20200	1.91
	Management rice leaf folder and stem borer by using new insecticide molecules	BPT 5204		Wet	10	4	7.5	6.3	6.9	5.0	38.0	26210	62100	35890	2.36	23170	45000	21830	1.94

Millets																			
Pulses	Popularizing Redgram var vamban 3 in rainfed ecosystem	VBN 3		dry	10	2	0.880	0.770	0.84	0.715	15	10800	24750	13950	2.29	10800	21450	10650	1.98
	Poularisation of mini mobile sprinkler system in greengrm/blackgram	VBN 2		dry	10	2	-	-	-	-	-	--	-	--	-	-	-	-	-
Vegetables	Popularizing fruit and vegetables preservator				4	3	-	-				750	900	250	1.20	710	775	65	1.05
Ornamental																			
Fruit	Popularsing foliar spray of SOP in Banana	Grand Nine		wet	10	4	80	25	40	32	25.0	91830	171240	79410	1.86	90000	129600	39600	1.44
	Popularization of baclobutrazol spray in Mango	Neelum		wet	10	4	12	4	7	4	75.0	36000	63000	27000	1.76	20000	30076	10076	1.50
Spices and condiments																			
Commercial																			
Medicinal and aromatic																			
Fodder	Popularizing legume fodder in existing cumbu napier grass	Desmanthus		Wet land	10	2.0	195	170	185	120	54.0	25600	81000	55400	3.16	21500	54000	32500	2.51

Plantation																			
Fibre																			
Others (pl.specify)	Popularization of Casuarina junghuhniana in PVC area	Casurina		wet	10	1	-	-	-	-	-	-	-	-	-	-	-	-	-

* 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
CORH3 Plant height (cm) Productive tillers/hill (nos)	 91.5 16.0	 88.6 12.4
Redgram (VBN 3) Plant height (cm) Days to flowering(days) No.of pods	 89.2 90 32.5	 95.2 115 28.9
CNgrass+Desmanthus No tillers /clump No.of leaves /clump Desmanthus Plant height Leaf –stem ratio	 22 280 56.5 cm 1:1.7	 18 170 - -
Casurina Plant height (cm) Girth (cm)	2.7 8.6	2.1 7.9

5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./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										
Dairy	Popularization of yoghurt preparation from milk		10	20					Yoghurt sales increased from 25 % to 30 %	For 10 lt of yoghurt Preparation **Rs 300.00** (Milk 10lt=260.00 Yoghurt culture-10.0 Milk powder-20.00 Sugar= 10.00)	For 10 lt of yoghurt Preparation **450.00**	**150.0**	**1.50**	For 10 lt of curd Preparation 260.00 1 lt	**Yield= 800 ml** 320.00	60.00	1.23
	Popularisation of salt lick mineral cake for calves.		200 calves	20					▪ Initial body weight is 30 kg / calf ▪ Body weight gain after 3 months is 82 kg / calf ▪ salt lick mineral cake helped in improving growth, milk and feed intake ▪ Hence the usage of salt lick mineral cake for calves is successful								

Poultry	Popularisation of oral pellet vaccine against ranikhet disease in desi chicken		300 birds	20					• Ranikhet disease symptoms was not found in desi chicken after intake of oral pellet vaccine • Skill is not required for the farmers to implement this method • Easy to vaccinate the birds • Easy for administration • Mortality rate was reduced in desi chicken								
	Popularisation of turkey poulted bird		10	5/farmer					• Initial body weight is 720 gms/ turkey • Body weight of turkey at the 16 th week is 7 kg in case of male and 4.5 kg in case of female • Number of eggs laid – 81 eggs and each egg weighed about 70 gms • During marketing Male bird weighed about 7.5 kg whereas female bird weighed about 5.0 kg								

	Popularizing community incubator for backyard desi chicken and turkey farmers		3	3					• Use of incubator improved hatchability in desi chicken. • Hatchability is 80 percent. Increased the hatching capacity which inturn improved the farmers income. • Cost benefit ratio is high.								
Rabbitry																		
Pigerry																		
Sheep and goat																		
Duckery																		
Others (pl.specify)																		

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

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Demo**	**Local**
Production of Yoghurt Popularising Yoghurt preparation from milk – Demonstration of milk products- Yoghurt preparation	**Production of Yoghurt =15-20 lts/ day**	**10 lts/day**

5.B.3. Fisheries

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m^2	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./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										
Common carps																	
Mussels																	
Ornamental fishes																	
Others (pl.specify)																	

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

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

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

5.B.4. 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.5. 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										
Transpalnter,weeder,harvester	Mechanization in rice	10	2	6.2	5.3	5.5	4.8	15	20225	49500	29275	2.45	21412	40500	19088	1.89

* 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**
Labour saving	90 %	
Cost saving	45%	

5.B.6. Cotton

Summary of demonstrations conducted under FLD cotton

Sl. No.	Category	Technology Demonstrated	Variety	Hybrid	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
						Proposed	Actual	SC/ST	Others	Total	
	Production Technology	ICM	SVPR 2	-	Rabi 2009	10	10	5	20	25	-

5B.6.2 Production technology demonstrations
Performance of demonstrations

Farming situation	Technology Demonstrated	Area (ha)	No.of demo.	Variety	Hybrid	Yield (q/ha)		% Increase	Economics of demonstration (Rs./ha)				Economics of local check (Rs./ha)			
						Demo	Local		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Dry land	Seed var SVPR 2 – Seed treatment Nutrient spray IPM	10	25	SVPR 2	-	7.80	6.40	21.8	12500	23400	10900	1.87	13750	19200	5540	1.40

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

Category	Farming situation	Technology Demonstrated	Area (ha)	No.of demo.	Variety	Hybrid	Yield (q/ha)		% Increase	Economics of demonstration (Rs./ha)				Economics of local check (Rs./ha)			
							Demo	Local		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Bt hybrids																	
Desi hybrids (AXA)																	
HXB Hybrids																	
HXH Hybrids																	
Herbacium Varieties																	
Hirsutum Varieties																	
Arboreum Varieties																	

5.B.6. 3 Integrated pest management demonstrations

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

5.B.6.4 Demonstrations on farm implements

Name of the implement	Area (Ha)	No. of Demo.	Name of the technology demonstrated	Details on parameters		
				Demo	Local check	BCR
Power weeder	25	25	Weeding operation in cotton field	Weed control efficiency 83% Labour saving - 87 %	Manual weeding 80% -	2.58 2.12
Total						

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

Extension activity	No. of Programmes	Participants			SC/ST		
		Male	Female	Total	Male	Female	Total
Consultancy	**1**	**35**	**20**	**55**	**5**	**8**	**13**
Conventions							
Demonstrations	3	150	120	270	50	20	70
Diagnostic surveys	1	40	15	55	5	3	8
Exhibition							
Farmer study tours							
Farmers Field school							
Field Days	5	350	100	450	60	20	80
Field visits							
Gram sabha							
Group discussions							
Kisan Gosthi							
Kisan Mela	1	75	50	120	30	20	50
Training for Extension Functionaries	2	25	15	40	-	-	-
Training for farmers	12	150	170	320	40	50	90
Viedo show							
Newspaper coverage	2						
Popular articles							
Publication							
Radio talks	1	-	-	-			
T.V. Programme							
Others (Pl.specify)							
TOTAL	**28**	825	490	1310	190	121	311

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

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1	Rice	Popularisation of CORH 3 rice hybrid	Higher growth and yield was obtained over ruling varities
2	Redgram	Popularizing Redgram var VBN 3 in rainfed ecosystem	Shorter duration and high yield
3	Desmanthus	Popularizing legume fodder in existing cumbu napier grass	More fodder yield

4	Rice	Mechanization in rice	Less labour, timely planting and low cost of cultivation
5	Banana	Popularsing foliar spray of SOP in Banana	The foliar spray of 1.5% SOP treatment was increase yield up to 20% and doubled net income
6	Mango	Popularization of paclobutrazol spray in Mango	The soil application of paclobutrazol was increase yield up to 73%
7	Rice	Management of rice earhead bug by usig KKM 1 Acromus calamus	Residual effect of this dust is more compared to insecticides
8	Rice	Management rice leaf folder and stem borer by using new insecticide molecules	The chemical is highly effective against leaf folder and stem borer
9	Vegetables	Popularizing fruit and vegetables preservator	The shelf life is extended in the vegetables and it is cost effective
10	Milk	Popularization of yoghurt preparation from milk	As the acidity of yoghurt is not increased it fetched more sales. The quantity of production and sale is increased two fold
11	Poultry	Popularisation of oral pellet vaccine against raniket disease in desi chicken	Easy to vaccinate the birds
12	Dairy	Popularisation of salt lick mineral cake for calves	salt lick mineral cake helped in improving growth, milk and feed intake
13	Poultry	Popularizing turkey poulted bird	Improved the income of the farmers .
14	Poultry	Popularizing community incubator for backyarddesi chicken and turkey farmers	Increased the hatching capacity which inturn improved the farmers income.
15	Casuarina	Popularization of Casuarina junghuhniana in PVC area	-

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

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1	Rice	Popularisation of CORH 3 rice hybrid	No BLB incidence was noticed
2	Redgram	Popularizing Redgram var VBN 3 in rainfed ecosystem	Shorter duration and high yield
3	Desmanthus	Popularizing legume fodder in existing cumbu napier grass	Milk yield was higher
4	Rice	Mechanization in rice	Labour problem is reduced , less cost of cultivation ,timely planting
5	Vegetables	Popularizing fruit and vegetables preservator	The commercialization in the market is not there
6	Milk	Popularization of yoghurt preparation from milk	The culture is not available in the market hence the production is less
7	Fruits	Popularization of baclobutrazol spray in Mango	Cost of chemical is high

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

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	55	2240	
2	Farmers Training	95	4000	
3	Media coverage	10	-	
4	Training for extension functionaries	8	350	

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	Popularization of CORH 3 rice hybrid	CORH 3	10	5	6.8	5.9	6.1	5.4	13	24750	57950	33200	2.34	23900	51300	27400	2.14
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

PART VII. TRAINING

7.A.. 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	2	40	15	55	15	5	20	55	20	75
Resource Conservation Technologies	1	15	20	35	5	5	10	20	25	45
Cropping Systems	3	80	30	110	40	20	60	120	50	170
Crop Diversification								0	0	0
Integrated Farming								0	0	0
Micro Irrigation/Irrigation	5	250	30	280	75	20	95	325	50	375
Seed production	2	50	35	85	20	15	35	70	50	120
Nursery management	3	120	30	150	25	20	45	145	50	195
Integrated Crop Management	5	150	80	230	75	50	125	225	130	355
Soil and Water Conservation								0	0	0
Integrated Nutrient Management								0	0	0
Production of organic inputs								0	0	0
Others (pl.specify)								0	0	0
Horticulture								0	0	0
a) Vegetable Crops								0	0	0
Production of low value and high volume crop								0	0	0
Off-season vegetables								0	0	0
Nursery raising	2	40	25	65	25	15	40	65	40	105
Exotic vegetables								0	0	0
Export potential vegetables								0	0	0
Grading and standardization								0	0	0
Protective cultivation	2	55	35	90	15	10	25	70	45	115
Others (pl.specify)								0	0	0
b) Fruits								0	0	0
Training and Pruning	2	40	25	65	25	20	65	65	45	130
Layout and Management of Orchards								0	0	0
Cultivation of Fruit								0	0	0
Management of young plants/orchards								0	0	0
Rejuvenation of old orchards								0	0	0
Export potential fruits	4	80	25	105	35	25	60	115	50	165
Micro irrigation systems of orchards	5	120	50	170	45	25	70	165	75	240
Plant propagation techniques	3	50	40	90	35	25	55	85	65	145
Others (pl.specify)								0	0	0
c) Ornamental Plants								0	0	0
Nursery Management								0	0	0
Management of potted plants								0	0	0

Export potential of ornamental plants								0	0	0
Propagation techniques of Ornamental Plants								0	0	0
Others (pl.specify)								0	0	0
d) Plantation crops								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
e) Tuber crops								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
f) Spices								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
g) Medicinal and Aromatic Plants								0	0	0
Nursery management								0	0	0
Production and management technology	2	25	40	65	15	30	45	40	70	110
Post harvest technology and value addition								0	0	0
Others (pl.specify)								0	0	0
Soil Health and Fertility Management								0	0	0
Soil fertility management								0	0	0
Integrated water management								0	0	0
Integrated nutrient management	4	80	60	140	35	30	65	115	90	205
Production and use of organic inputs								0	0	0
Management of Problematic soils								0	0	0
Micro nutrient deficiency in crops	3	40	55	95	15	20	35	55	75	130
Nutrient use efficiency								0	0	0
Balanced use of fertilizers								0	0	0
Soil and water testing								0	0	0
Others (pl.specify)								0	0	0
Livestock Production and Management								0	0	0
Dairy Management								0	0	0
Poultry Management	2	30	40	70	20	40	60	50	80	130
Piggery Management								0	0	0
Rabbit Management								0	0	0
Animal Nutrition Management	2	25	20	45	25	20	45	50	40	90
Animal Disease Management								0	0	0
Feed and Fodder technology	3	50	20	70	40	25	65	90	45	135
Production of quality animal products								0	0	0

Others (pl.specify)								0	0	0
Home Science/Women empowerment								0	0	0
Household food security by kitchen gardening and nutrition gardening								0	0	0
Design and development of low/minimum cost diet								0	0	0
Designing and development for high nutrient efficiency diet								0	0	0
Minimization of nutrient loss in processing								0	0	0
Processing and cooking								0	0	0
Gender mainstreaming through SHGs								0	0	0
Storage loss minimization techniques	2	15	20	35	20	25	45	35	45	80
Value addition	5	75	25	100	30	40	70	105	65	170
Women empowerment								0	0	0
Location specific drudgery production								0	0	0
Rural Crafts								0	0	0
Women and child care								0	0	0
Others (pl.specify)								0	0	0
Agril. Engineering								0	0	0
Farm machinery and its maintenance	5	250	20	270	30	20	50	280	40	320
Installation and maintenance of micro irrigation systems	5	40	15	55	20	10	30	60	25	85
Use of Plastics in farming practices								0	0	0
Production of small tools and implements								0	0	0
Repair and maintenance of farm machinery and implements								0	0	0
Small scale processing and value addition								0	0	0
Post Harvest Technology	4	75	40	115	15	20	35	90	60	150
Others (pl.specify)								0	0	0
Plant Protection								0	0	0
Integrated Pest Management	10	85	60	145	30	25	55	115	85	200
Integrated Disease Management	5	40	25	65	15	20	35	55	45	100
Bio-control of pests and diseases	3	20	25	45	15	30	45	35	55	90
Production of bio control agents and bio pesticides								0	0	0
Others (pl.specify)								0	0	0
Fisheries								0	0	0
Integrated fish farming								0	0	0
Carp breeding and hatchery management								0	0	0
Carp fry and fingerling rearing								0	0	0
Composite fish culture								0	0	0
Hatchery management and culture of freshwater prawn								0	0	0
Breeding and culture of ornamental fishes								0	0	0
Portable plastic carp hatchery								0	0	0
Pen culture of fish and prawn								0	0	0

Shrimp farming								0	0	0
Edible oyster farming								0	0	0
Pearl culture								0	0	0
Fish processing and value addition								0	0	0
Others (pl.specify)								0	0	0
Production of Inputs at site								0	0	0
Seed Production								0	0	0
Planting material production	**35**	**250**	**150**	**400**	**75**	**80**	**150**	325	230	550
Bio-agents production								0	0	0
Bio-pesticides production								0	0	0
Bio-fertilizer production								0	0	0
Vermi-compost production	**10**	**75**	**25**	**100**	**45**	**50**	**95**	120	75	195
Organic manures production								0	0	0
Production of fry and fingerlings								0	0	0
Production of Bee-colonies and wax sheets								0	0	0
Small tools and implements								0	0	0
Production of livestock feed and fodder								0	0	0
Production of Fish feed								0	0	0
Mushroom production								0	0	0
Apiculture	**15**	**150**	**75**	**225**	**60**	**140**	**200**	210	215	425
Others (pl.specify)								0	0	0
Capacity Building and Group Dynamics								0	0	0
Leadership development								0	0	0
Group dynamics								0	0	0
Formation and Management of SHGs								0	0	0
Mobilization of social capital								0	0	0
Entrepreneurial development of farmers/youths	**4**	**25**	**30**	**55**	**15**	**20**	**35**	40	50	90
Others (pl.specify)								0	0	0
Agro-forestry								0	0	0
Production technologies								0	0	0
Nursery management	**5**	**80**	**45**	**125**	**30**	**25**	**55**	110	70	180
Integrated Farming Systems	**2**							0	0	0
Others (Pl. specify)								0	0	0
TOTAL	**165**	**2520**	**1230**	**3750**	**985**	**925**	**1920**	3505	2155	5670

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

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Crop Production										
Weed Management										
Resource Conservation Technologies										

Cropping Systems	5	45	65	110	25	15	40	70	80	150
Crop Diversification								0	0	0
Integrated Farming	2	30	25	55	15	10	25	45	35	80
Micro Irrigation/Irrigation								0	0	0
Seed production								0	0	0
Nursery management								0	0	0
Integrated Crop Management	8	200	150	350	100	140	240	300	290	590
Soil and Water Conservation								0	0	0
Integrated Nutrient Management	4	150	25	175	40	50	90	190	75	265
Production of organic inputs	2	40	25	65	15	25	40	55	50	105
Others (pl.specify)								0	0	0
Horticulture								0	0	0
a) Vegetable Crops								0	0	0
Production of low value and high volume crop	2	25	15	40	30	20	50	55	35	90
Off-season vegetables								0	0	0
Nursery raising	3	20	15	35	20	20	40	40	35	75
Exotic vegetables								0	0	0
Export potential vegetables								0	0	0
Grading and standardization								0	0	0
Protective cultivation								0	0	0
Others (pl.specify)								0	0	0
b) Fruits								0	0	0
Training and Pruning								0	0	0
Layout and Management of Orchards								0	0	0
Cultivation of Fruit								0	0	0
Management of young plants/orchards								0	0	0
Rejuvenation of old orchards								0	0	0
Export potential fruits								0	0	0
Micro irrigation systems of orchards	2	25	30	55	15	30	45	40	60	100
Plant propagation techniques								0	0	0
Others (pl.specify)								0	0	0
c) Ornamental Plants								0	0	0
Nursery Management								0	0	0
Management of potted plants								0	0	0
Export potential of ornamental plants								0	0	0
Propagation techniques of Ornamental Plants								0	0	0
Others (pl.specify)								0	0	0
d) Plantation crops								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0

e) Tuber crops								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
f) Spices								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
g) Medicinal and Aromatic Plants								0	0	0
Nursery management								0	0	0
Production and management technology								0	0	0
Post harvest technology and value addition								0	0	0
Others (pl.specify)								0	0	0
Soil Health and Fertility Management								0	0	0
Soil fertility management								0	0	0
Integrated water management								0	0	0
Integrated nutrient management								0	0	0
Production and use of organic inputs								0	0	0
Management of Problematic soils								0	0	0
Micro nutrient deficiency in crops								0	0	0
Nutrient use efficiency								0	0	0
Balanced use of fertilizers								0	0	0
Soil and water testing								0	0	0
Others (pl.specify)								0	0	0
Livestock Production and Management								0	0	0
Dairy Management	2	20	15	35	15	10	25	35	25	60
Poultry Management	2	30	25	55	15	20	35	45	45	90
Piggery Management								0	0	0
Rabbit Management								0	0	0
Animal Nutrition Management								0	0	0
Animal Disease Management								0	0	0
Feed and Fodder technology	2	15	30	45	15	15	30	30	45	75
Production of quality animal products								0	0	0
Others (pl.specify)								0	0	0
Home Science/Women empowerment								0	0	0
Household food security by kitchen gardening and nutrition gardening								0	0	0
Design and development of low/minimum cost diet								0	0	0
Designing and development for high nutrient efficiency diet								0	0	0
Minimization of nutrient loss in processing								0	0	0
Processing and cooking	2	10	30	40	5	20	25	15	50	65

Gender mainstreaming through SHGs								0	0	0
Storage loss minimization techniques	4	35	40	75	3	15	18	38	55	93
Value addition	5	20	45	65	30	40	70	50	85	135
Women empowerment	1	3	15	18	5	15	30	8	30	48
Location specific drudgery production								0	0	0
Rural Crafts								0	0	0
Women and child care								0	0	0
Others (pl.specify)								0	0	0
Agril. Engineering								0	0	0
Farm machinery and its maintenance	3	70	50	120	30	250	55	100	300	175
Installation and maintenance of micro irrigation systems	4	50	20	70	30	15	45	80	35	115
Use of Plastics in farming practices								0	0	0
Production of small tools and implements								0	0	0
Repair and maintenance of farm machinery and implements								0	0	0
Small scale processing and value addition								0	0	0
Post Harvest Technology	2	20	30	50	15	10	25	35	40	75
Others (pl.specify)								0	0	0
Plant Protection								0	0	0
Integrated Pest Management								0	0	0
Integrated Disease Management	3	25	30	55	40	20	60	65	50	115
Bio-control of pests and diseases	2	40	15	55	15	10	25	55	25	80
Production of bio control agents and bio pesticides								0	0	0
Others (pl.specify)								0	0	0
Fisheries								0	0	0
Integrated fish farming								0	0	0
Carp breeding and hatchery management								0	0	0
Carp fry and fingerling rearing								0	0	0
Composite fish culture								0	0	0
Hatchery management and culture of freshwater prawn								0	0	0
Breeding and culture of ornamental fishes								0	0	0
Portable plastic carp hatchery								0	0	0
Pen culture of fish and prawn								0	0	0
Shrimp farming								0	0	0
Edible oyster farming								0	0	0
Pearl culture								0	0	0
Fish processing and value addition								0	0	0
Others (pl.specify)								0	0	0
Production of Inputs at site								0	0	0
Seed Production	**2**	**25**	**20**	**45**	**15**	**25**	**40**	40	45	85
Planting material production								0	0	0

Bio-agents production								0	0	0
Bio-pesticides production								0	0	0
Bio-fertilizer production								0	0	0
Vermi-compost production	**2**	**30**	**25**	**55**	**15**	**10**	**25**	45	35	80
Organic manures production	**1**	**20**	**15**	**35**	**15**	**15**	**30**	35	30	65
Production of fry and fingerlings								0	0	0
Production of Bee-colonies and wax sheets								0	0	0
Small tools and implements								0	0	0
Production of livestock feed and fodder								0	0	0
Production of Fish feed								0	0	0
Mushroom production								0	0	0
Apiculture	**2**	**30**	**25**	**55**	**20**	**10**	**30**	50	35	85
Others (pl.specify)								0	0	0
Capacity Building and Group Dynamics								0	0	0
Leadership development								0	0	0
Group dynamics								0	0	0
Formation and Management of SHGs								0	0	0
Mobilization of social capital								0	0	0
Entrepreneurial development of farmers/youths								0	0	0
Others (pl.specify)								0	0	0
Agro-forestry								0	0	0
Production technologies	**2**	**30**	**25**	**55**	**30**	**25**	**55**	60	50	110
Nursery management								0	0	0
Integrated Farming Systems								0	0	0
Others (Pl. specify)								0	0	0
TOTAL	**69**	**1008**	**805**	**1813**	**573**	**835**	**1193**	**1581**	**1640**	**3006**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	2	15	10	25	20	10	30	35	20	55
Training and pruning of orchards								0	0	0
Protected cultivation of vegetable crops	1	10	10	20	10	5	15	20	15	35
Commercial fruit production								0	0	0
Integrated farming								0	0	0
Seed production	3	30	20	50	15	15	30	45	35	80
Production of organic inputs	2	30	25	55	10	15	25	40	40	80
Planting material production								0	0	0
Vermi-culture	2	20	15	35	15	10	25	35	25	60
Mushroom Production								0	0	0

Bee-keeping	5	60	50	110	15	25	40	75	75	150
Sericulture								0	0	0
Repair and maintenance of farm machinery and implements								0	0	0
Value addition	5	35	15	50	25	25	50	60	40	100
Small scale processing								0	0	0
Post Harvest Technology	1	10	10	20	5	10	15	15	20	35
Tailoring and Stitching								0	0	0
Rural Crafts								0	0	0
Production of quality animal products								0	0	0
Dairying								0	0	0
Sheep and goat rearing								0	0	0
Quail farming								0	0	0
Piggery								0	0	0
Rabbit farming								0	0	0
Poultry production								0	0	0
Ornamental fisheries								0	0	0
Composite fish culture								0	0	0
Freshwater prawn culture								0	0	0
Shrimp farming								0	0	0
Pearl culture								0	0	0
Cold water fisheries								0	0	0
Fish harvest and processing technology								0	0	0
Fry and fingerling rearing								0	0	0
Any other (pl.specify)								0	0	0
TOTAL	21	210	155	365	115	115	230	325	270	595

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	2	25	30	55	15	10	25	40	40	80
Training and pruning of orchards								0	0	0
Protected cultivation of vegetable crops								0	0	0
Commercial fruit production								0	0	0
Integrated farming	2	30	25	55	15	15	30	45	40	85
Seed production								0	0	0
Production of organic inputs	3	20	30	50	15	10	25	35	40	75
Planting material production	4	25	30	55	10	15	25	35	45	80
Vermi-culture								0	0	0
Mushroom Production								0	0	0

Bee-keeping	6	50	30	80	25	15	40	75	45	120
Sericulture								0	0	0
Repair and maintenance of farm machinery and implements								0	0	0
Value addition	5	45	15	60	15	10	25	60	25	85
Small scale processing								0	0	0
Post Harvest Technology								0	0	0
Tailoring and Stitching								0	0	0
Rural Crafts								0	0	0
Production of quality animal products								0	0	0
Dairying								0	0	0
Sheep and goat rearing								0	0	0
Quail farming								0	0	0
Piggery								0	0	0
Rabbit farming								0	0	0
Poultry production								0	0	0
Ornamental fisheries								0	0	0
Composite fish culture								0	0	0
Freshwater prawn culture								0	0	0
Shrimp farming								0	0	0
Pearl culture								0	0	0
Cold water fisheries								0	0	0
Fish harvest and processing technology								0	0	0
Fry and fingerling rearing								0	0	0
Any other (pl.specify)								40	40	80
TOTAL	22	195	160	355	95	75	170	290	235	525

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	5	150	40	190	5	3	8	155	43	193
Integrated Pest Management	4	140	35	175	10	5	15	150	40	190
Integrated Nutrient management	6	170	50	220	15	8	23	185	58	234
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs	1	20	5	25				20	5	25
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	1	40	10	50	5	2	7	45	12	57
Management in farm animals										
Livestock feed and fodder production	2	50	25	75	4	5	9	54	30	84
Household food security										
Any other (pl.specify)										
Total	19	570	165	735	39	23	62	609	188	783

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	3	40	35	75	15	10	25	55	45	100
Integrated Pest Management	2	60	30	90				60	30	90
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
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	2	30	25	55	5	10	15	35	35	70
Household food security	2	40	10	50	10	15	25	50	25	75
Any other (pl.specify)										
Total	9	170	100	270	30	35	65	200	135	335

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	**4**	**50**	**40**	**90**	**10**	**15**	**25**	**60**	**55**	**115**
1.b.	Commercial production of vegetables	**8**	**150**	**60**	**210**	**20**	**25**	**45**	**170**	**85**	**255**
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**	**2**	**25**	**10**	**35**	**10**	**15**	**25**	**35**	**25**	**60**
5	**Methods of protective cultivation**										
6	**Others (pl.specify)**										
7	**Post harvest technology and value addition**	**2**	**35**	**20**	**55**	**10**	**15**	**25**	**45**	**35**	**80**

7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
8	**Farm machinery**										
8.a.	Farm machinery, tools and implements	**3**	**50**	**10**	**60**	**20**	**15**	**35**	**70**	**25**	**95**
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	**5**	**10**	**60**	**70**	**10**	**35**	**45**	**20**	**95**	**115**
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)										
	Total	**24**	**320**	**200**	**520**	**80**	**120**	**200**	**400**	**320**	**720**

Details of sponsoring agencies involved

1.NADP: KVK, Madurai is the main training centre for farmer of precision cultivation under NADP in southern districts

2. NHM : Providing training for farmers and extension personnel through NHM of Agrl. Department

3.IAMWARM: Undertaking IAMWARM projects on precision farming in vegetables, banana, sugarcane and SRI programme and extension through training programme.

4.DBT

5.NIF

6.NGO

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	**3**	**95**	**10**	**105**	**15**	**15**	**30**	**110**	**25**	**135**
1.e.	Organic farming										
1.f.	Others (pl.specify)										
2	**Post harvest technology and value addition**										
2.a.	Value addition	**2**	**40**	**25**	**65**	**20**	**10**	**30**	**60**	**35**	**95**
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	**3**	**90**	**40**	**130**	**25**	**20**	**45**	**115**	**60**	**175**
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery and implements										
4.d.	Rural Crafts										
4.e.	Seed production	**3**	**40**	**30**	**120**	**25**	**15**	**40**	**65**	**45**	**110**
4.f.	Sericulture										
4.g.	Mushroom cultivation										

4.h.	Nursery, grafting etc.	**4**	**105**	**55**	**160**	**5**	**15**	**20**	**110**	**70**	**180**
4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agril. 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	**15**	**370**	**160**	**580**	**90**	**75**	**165**	**460**	**235**	**695**

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	**40**	**850**	**1100**	**1950**				**3**	**2**	**5**
Kisan Mela	**2**	**200**	**150**	**350**				**3**	**3**	**6**
Kisan Ghosthi										
Exhibition	**10**	**500**	**250**	**750**				**5**		**5**
Film Show	**25**	**350**	**300**	**650**						
Method Demonstrations	**40**	**500**	**400**	**900**				**35**	**15**	**50**
Farmers Seminar	**5**	**120**	**150**	**270**						
Workshop	**2**	**80**	**100**	**180**						
Group meetings	**60**	**600**	**300**	**900**						
Lectures delivered as resource persons	**10**	**250**	**150**	**400**				**40**	**30**	**70**
Newspaper coverage	**10**									
Radio talks	**4**									
TV talks	**2**									
Popular articles	**4**									
Extension Literature	**5**									
Advisory Services	**220**	**125**	**25**	**150**				**15**	**10**	**25**
Scientific visit to farmers field	**100**	**65**	**35**	**100**						
Farmers visit to KVK	**125**	**800**	**500**	**1300**						
Diagnostic visits	**125**	**50**	**50**	**100**				**15**	**10**	**25**
Exposure visits	**5**	**150**	**100**	**250**						
Ex-trainees Sammelan										
Soil health Camp										
Animal Health Camp										
Agri mobile clinic										
Soil test campaigns										
Farm Science Club Conveners meet										
Self Help Group Conveners meetings										
Mahila Mandals Conveners meetings										
Celebration of important days (specify)(Parthenium week)	**1**	**40**	**35**	**75**			**5**			**80**
Any Other (Specify)										

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	Gingelly	TMV-7		100 kg	5000	25
Pulses	Blackgram	Vamban-4		150 kg	16800	20

	Redgram	Vamban -3		90 kg		10
Commercial crops						
Vegetables	Tomato seedlings	Lakshmi		4000	2000	5
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others (specify)	Grass slips	CN-grass CO-4		1500	750	20
Total						

9.B. Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial						
Vegetable seedlings	tomato		Lakshmi 5005	4000	2000	5
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				

.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.)

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers			
Technical reports			
News letters	KVK NEWSLETTER,Madurai(Tamil; English)	Programme coordinator	150+150=300
Technical bulletins	Groundnut cultivation Rouging operation in seed production. Post harvest technology equipments and techniques Seed extracting techniques in Vegetables Seed production techniques in cereals	A.M.Fathima gani and N.S.Venkataraman S.Kamalasundari .C.Ravindran & K.P Vaneetha C.Ravindran, S.Kamalasundari, & K.P.Vaneetha K.P.Vaneetha, .C.Ravindran & S.Kamalasundari,.	50 50 50 50 50
Popular articles	SVPR cultivation Coconut tree climber Improved varieties of Sesame TMV7 Reddenig in cotton Management of flood affected	P. Chandramani and N.S.Venkataraman V.Palani selvam and N.S.Venkataraman A.M.Fathima gani and N.S.Venkataraman A.M.Fathima gani and N.S.Venkataraman A.M.Fathima gani and	

	rice Pro tray nursery techniques Hormonal regulation of grape ripening	N.S.Venkataraman A.M.Fathima gani and N.S.Venkataraman C.Ravindran	
Extension literature			
Others (Pl. specify)			
TOTAL	**10**		**500**

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).

CASE STUDY

Transformation of cotton cultivation technology in Thirumangalam block through KVK s intervention

a) Name and Address of KVK

Krishi Vigyan Kendra
Agricultural College and Research Institute
Madurai – 625 104.

b) Title of case study : Transformation of Cotton var SVPR2 ,ICM and IPM through KVK s intervention in rainfed ecosystem

c) Background:

The case study was done by Krishi Vigyan Kendra in Madurai District. Various PRA tools such as village transect, time analysis, decision analysis and flow analysis were applied to analyze the spatial pattern of the village and subsequently identify the different socio-economic and socio cultural problems related to agriculture, animal husbandry and other livelihoods in the study area. The case study was undertaken in Thirumangalam block , Madurai District in about 150 farm families are living in those block.. The size of land holding is less than 1 ha. Farmers are generally following normal method of cotton cultivation with the ruling varieties like LRA5166, and MCU 5 and Sumangala. They are facing constraints in cotton cultivation for getting higher yield. The following constraints were identified by the KVK Madurai.

1. Labour problem
2. Water scarcity
3. Pest and Disease incidence
4. Low yield
5. High cost of production

Interaction made with farmers in regarding with problems oriented with cotton cultivation. In order to overcome the above problems, the improved variety with ICM and IPM was introduced to achieve higher yield and to increase

the standard of living of the farming community. In order to make the technology as successful one, cotton cultivation I intervention was made in cluster approach method.

d) Intervention:

Cotton is an important cash crop and plays important role in Indian economy. In Madurai, cotton is grown in about 9000ha under rainfed conditions. Cotton is highly susceptible to several pests. Increased use of pesticides resulted in several adverse effects like development of resistance in insect pests to insecticides, pest resurgence, pesticides residues ,health hazards, destruction of natural fauna ecological disturbances and environmental pollution, besides increased cost of production. From the year 2007, KVK, Madurai adopted Thirumangalam block for its intensive activities of transfer technologies related to agriculture for increasing agricultural production, thereby raising the standard of living farmers.

To find out the technological adoption gaps and to identify the thrust areas for the agricultural development, a PRA was made. During the PRA interacting with the farmers were unable to get high yield due to lack of improved varieties and non adoption improved ICM practices and lack of managing the insect pests and diseases even after applying higher doses of pesticides. One of the major thrust areas identified is, use of improved varieties and adoption of improved ICM and IPM practices. The farmers were spending huge amount for pest management and they had to rely on private pesticides dealers. Use of traditional varieties viz., sumangala, LRA5166, poor agronomic management and IPM practices resulted poor yield and low income.

Considering the situation and dialogues with farmers, implementation of ICM practices with improved variety and IPM and the training as well as demonstrations on ICM and IPM were need of the block for profitable cultivation of cotton. The interested farmers were given on campus as well as off campus training with special emphasis on improved varieties, ICM and IPM components through video how and power point presentations.

Fortunately, with financial assistance under FLD cotton scheme, was able to give demonstrations in 150 acres .The detailed components if ICM and IPM were demonstrated, constant follow up visits. Ex trainee visits, field days, farmer's day and other extension activities were organised. Initially farmers were hesitating in adopting improved practices and need based application single pesticides and other IPM component but with constant encouragement, KVK Scientists are successful in building up confidence in them. The major achievement of the demonstrations is that farmers were successful in using improved variety SVPR2 instead Sumangala and LRA 5166 with ICM components like seed treatment, application of Micro nutrient mixture, foliar application of Mg So4 and IPM components viz., application of neem cake, pheromone traps and use of neem based pesticides. The farmers from neighboring villages were also attracted and associated with KVK for adopting their village under improved cotton cultivation.

e) Results:

In view of improved yield and high economic return, most of the farmers under Thirumangalam block are now cultivating SVPR2 instead of traditional varieties. Due to front line demonstration in cotton, the yield obtained was 8-9 q/ha and the number of pesticide spray was reduced from 10 to 2 nos.

f) Feedback from farmers in cotton cultivation:

Since the duration of the crop is less, drought tolerant and high economic return, the farmers are more interested to cultivate the cotton under SVPR2 under larger area

g) Evaluation

The evaluation was done by the KVK scientist and State Department of Agriculture in connection with adoption of cotton ICM and IPM components. The crop stand was good and the farmers reaped bumber harvest. The knowledge, skill, attitude of farmers was increased which in turn paved way for the behavioral change of the farmers which resulted in higher productivity, profitability and prosperity.

Success story

Banana cultivation through precision farming

Thiru. A.Pandi

Thiru.A.Pandi (Kokkulam village) is cultivating the banana for the past several years. As he did not get much profit in banana cultivation, the other crops. On persuasion of project staff, he raised banana crop by using precision farming technology. First time in his village and followed all the components of Precision farming technology like drip irrigation ,fertigation in banana and he has raised tissue culture banana G9 under precision farming. He had applied fertilizer at frequent interval through fertigation method. When compared to the traditional method, he obtained maximum yield of 40 t/ac in his village as against 25t/ac by conventional method. He obtained gross income of Rs 120000/ac as against Rs 75000/ ac using conventional method. He motivated the precision farming technology in banana to other farmers and he f**ormed Association in the name of Madurai District precision farming Association** at Kokkulam in Chellampatty block.

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

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Mixed cropping system	Farmers are raising Senna, Vinca rosea, Chickpea and Coriander as mixed crop in dryland situation at the end of rainy season.	To get produce for their own use and also get additional income.

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

Identification of courses for farmers/farm women :Through PRA survey, problems were identified based on farmers needs of different blocks of the Madurai dist.

- Rural Youth
- In service personnel

Through the Zonal meeting conducted during every month at KVK, in service personnel from Department of Agriculture were interacted in connection with problems and other needs of the farmers in different block in Madurai District . Based on training will be arranged with experts available in AC&RI, Madurai.

10.G. Field activities

i.	Number of villages adopted	-	30
ii.	No. of farm families selected	-	300
iii.	No. of survey/PRA conducted	-	300

10. H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Instruments and equipments purchase and establishment of SWTL is in progress

1. Year of establishment : 2011
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	-			

10.I. Technology Week celebration

Period of observing Technology Week: From 05-03-2010 to 10-03-2010
Total number of farmers visited : 1450
Total number of agencies involved : 7
Number of demonstrations visited by the farmers within KVK campus: 7

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	-	-	
Lectures organized	12	1350	Precision farming, and market led production Organic farming Vermicompost production and marketing SRI, Pulses production and Bio control agents production technology, Value added Food products , Bamboo cultivation and its value
Exhibition	6	950	Crop and live stock , implements, drip irrigation units, tractors ,piggery unit ,poultry , fodder crops
Film show	6	360	SRI, precision faming , Cotton cultivation, pulses production ,Machineries usage
Fair			
Farm Visit	6	250	Seed production plot, Precision farming, drip system, Hi tech nursery
Diagnostic Practicals			
Supply of Literature (No.)	500	500	SRI, Precision farming , drip maintenance, cotton production technology, bee keeping ,Pulses production technology
Supply of Seed (q)	-		
Supply of Planting materials (No.)	-		
Bio Product supply (Kg)	-		
Bio Fertilizers (q)			
Supply of fingerlings	-		
Supply of Livestock specimen (No.)			
Total number of farmers visited the technology week		2100	

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

A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries

B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No.of participants
Total			

D. Animal health camps organized

State	Number of camps	No.of animals	No.of farmers

Total			

E. Seed distribution in drought hit states

State	**Crops**	**Quantity (qtl)**	**Coverage of area (ha)**	**Number of farmers**
Total				

F. Large scale adoption of resource conservation technologies

State	**Crops/cultivars and gist of resource conservation technologies introduced**	**Area (ha)**	**Number of farmers**
Total			

G. Awareness campaign on **Parthenium week**

State	**Meetings**		**Gosthies**		**Field days**		**Farmers fair**		**Exhibition**		**Film show**	
	No.	**No.of farmers**	**No.**	**No.of farmers**	**No.**	**No.of farmers**	**No.**	**No.of farmers**	**No.**	**No.of farmers**	**No.**	**No.of farmers**
Tamil nadu	**2**	**120**										
Total	**2**	**120**										

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./ha)	**After (Rs./ha)**
1. SRI technology	2000	90	11,000 (net profit)	21,200 (Net profit)

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)

SRI Technology - 15000 ha
Precision Farming Vegetables - 150 ha
Cotton SVPR – 2 Varieties popularizing - 7000 ha

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

Name of the crop		ICM technology		yield
1. Rice	-	SRI Technology	-	6.5 T/ha
2. Tomato	-	Precision farming	-	105 T/ha
3. Banana	-	precision farming	-	110 T/ha
4. Cotton	-	ICM package	-	8.5 Q/ha

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
SISO NGO organization	OFT and FLD programme
DHAN foundation	Training programme

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.)
IAMWARAM	Sep – 2010	World Bank /Tamilnadu Govt.	Rs 54.99 lakhs
NADP	Jun – 2010	Govt of Tamilnadu	Rs. 25.0 lakhs

12. C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

S. No.	Programme	Nature of linkage	Remarks
1	ATMA-Demonstration and Training	Department officials and Farmers	
	SRI technology Fodder production technology Rice mechanization Hi tech nursery management Vermi compost production	Agrl. Dept and farmers	Training was organized with dept.officials.

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

S. No.	Programme	Nature of linkage	Constraints if any
1	Training on precision farming, vegetable cultivation,banana cultivation	Horticulture Dept-Precision farming farmers	-

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

S. No.	Programme	Nature of linkage	Remarks

PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

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

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

	was sanctioned during this year 2011								

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Pulses	June - july	Sep-Oct	1.06	Vamban 4 blackgram vamban 3 redgram	Seeds	150 kgs 90 kgs		RS 16800	
Oilseeds	Nov-Dec	Feb	0.4	TMV 7	seed	100 kgs		Rs 5000	
Fibers									
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables				Tomato Lakshmi-5005	Seedling	4000		Rs 2000	
Others (specify)									
Fodder crops				CO-4 CN grass	Grass slips	1500		750	

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
	-				

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
	-						

13.E. Utilization of hostel facilities

Accommodation available (No. of beds) - 24

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2009	24	23	
May 2009	24	23	
June 2009	59	17	-
July 2009	307	20	
Aug. 2009	250	24	
Sept. 2009	9	9	
Oct. 2009	28	10	
Nov. 2009	100	10	
Dec. 2009	64	10	
Jan. 2010	51	8	
Feb. 2010	110	14	
March 2010	146	12	

13.F. Database management

S. No	Database target	Database created
1	District profile-area, cropping system, soil profile, irrigation sources, demography particulars, FLD and OFT, Achievements, success stories, case studies, trainings offered, impact studies	Data base creation is in progress

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

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

PART XIV - FINANCIAL PERFORMANCE

14.A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State bank of India	AC&RI, Madurai	3952	Dean, AC&RI, Madurai			SBIN0003952
With KVK							

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

S. No	Items / Head	Opening balance if any	Remittance by ZPD VIII Bangalore	Actual expenditure dubitable to Council A/C	Closing balance if any	Remarks
1	Production Technology – 10ha					
	a. Essential inputs			34,941		
	b. POL, hiring vehicle, Kisan melas, printed materials, reports, demonstration boards	- 3,42,562		14,693	-	
	Total			49,634	- 397400	
2.	Farm Implements – 25ha					
	a. New equipments					
	b. Contingencies	5000		5204		
	Total			54,838	- 397400	

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	10570000	7672652	2897348
2	**Traveling allowances**	125000	120231	4769
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	200000	199268	732
B	POL, repair of vehicles, tractor and equipments	160000	160000	-
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	100000	100000	-
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	65000	64468	532
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	205000	183087	21913
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	70000	69960	40
G	Training of extension functionaries	10000	10000	-
H	Maintenance of buildings	30000	29995	5
i	Extension activities	30000	30000	-
j	Farmers Field school	25000	24676	-
k	Chemicals and Glass wares for soil test lab	250000	249813	187
l	Petty items for soil test lab	100000	99944	56
I	Soil and plant processing and storage	50000	50082	-82
J	Library	5000	4451	549
TOTAL (A)		**1300000**	**1275744**	**23932**

B. Non-Recurring Contingencies				
1	Works			
	Demo unit one no	250000	250000	-
	Fencing cum compound wall	500000	500000	-
	Irrigation system	300000	251675	48325
2	Equipments including SWTL & Furniture			
	Power tiller	150000	145598	4402
	Laser guided land levellor	500000	340000	160000
	Furniture and furnishing	200000	199900	100
	SWTL	1000000	607437	392563
3	Vehicle (Four wheeler/Two wheeler, please specify)	-	-	-
4	Library (Purchase of assets like books & journals)	10000	9966	34
TOTAL (B)		2910000	2304576	605424
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		4210000	3580320	629356

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2008 to March 2009	80649	310070	240788	149931
April 2009 to March 2010	149931	318905	180220	288616
April 2010 to March 2011	288616	133869	157520	264965

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

Name of the staff	Designation	Title of the training programme	Institute where attended	**Dates**
Dr. C. Ravindran	Asst. Professor	Team work and building alliances for development	KKID, Coimbatore	29-31, March, 2010
Dr.K.P. Vaneetha	Asst. Professor	Team work and building alliances for development	KKID, Coimbatore	29-31, March, 2010
Dr.S. Kamalasundari	Asst. professor	Developing Winning Research proposal in Agrl . Research	NAARM,Hyderabad	8-12, Oct,, 2010
Dr.K.P. Vaneetha	Asst. Professor	Control of Raniket disease in desi birds	KVK, Nammakal	21.1.2011
Dr.K.P. Vaneetha	Asst. Professor	New initiative in transfer technology	TNAU, Coimbatore	24-25, Mar, 2011
Dr.K.P. Vaneetha	Asst. Professor	Alternative poultry farming as livelihood option for farming community	KVK, Nammakkal	24-25, Nov, 2010

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

SUMMARY FOR 2010-11

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Integrated Nutrient Management			
Varietal Evaluation			
Integrated Pest Management	Bhendi / Brinjal	Management of mealy bug in bhendi / brinjal	5
Integrated Crop Management	Cotton	Assessing the performance of BT cotton in rainfed ecosystem	5
	Tomato	Assessment of tomato hybrids for summer seasons	5
Integrated Disease Management	Banana	Management of banana wilt	3
Small Scale Income Generation Enterprises			
Weed Management			
Resource Conservation Technology			
Farm Machineries			
Integrated Farming System			
Seed / Plant production			
Value addition			
Drudgery Reduction			
Storage Technique	Onion	Assessment Panipet storage in onion	5
Others (Pl. specify)			
Total			

Summary of technologies assessed under livestock

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials
Disease Management			
Evaluation of Breeds			
Feed and Fodder management			

Nutrition Management			
Production and Management	calves	Management of infertility cross bred cows	50
Others (Pl. specify)			
Total			

.

Summary of technologies assessed under various enterprises

Thematic areas	Enterprise	Name of the technology assessed	No. of trials

Summary of technologies assessed under home science

Thematic areas	Enterprise	Name of the technology assessed	No. of trials

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	Rice	Assessing efficacy of refined wetland weeder	5
Integrated Farming System			
Seed / Plant production			
Value addition			
Drudgery Reduction			
Storage Technique	Birttergourd	Packaging technique to extend the shelf life of bittergourd	10
Others (Pl. specify)			
Total			

Summary of technologies assessed under refinement of various livestock

Thematic areas	Name of the livestock enterprise	Name of the technology refined	No. of trials
Disease Management			
Evaluation of Breeds			
Feed and Fodder management			
Nutrition Management			
Production and Management			
Others (Pl. specify)			
Total			

Summary of technologies refined under various enterprises

Thematic areas	Enterprise	Name of the technology assessed	No. of trials

Summary of technologies refined under home science

Thematic areas	Enterprise	Name of the technology assessed	No. of trials

III. FRONTLINE DEMONSTRATION

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
Cotton	Improving the productivity	ICM		25	10	7.80	6.40	21.8	12500	23400	10900	1.87	13750	19200	5540	1.39
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 crops

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (t/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cereals	ICM	Popularisation of CORH 3 rice hybrid		10	4	6.0	5.4	13	Plant height – 91.5 (cm) Productive titlers / hill 16.0	88.6 12.4	24750	57950	33200	2.34	23900	51300	27400	2.14
	IPM	Management of rice earhead bug by usig KKM 1 Acromus calamus		10	4	6.2	4.7	31	-	-	25300	55350	30050	2.18	22100	42300	20200	1.91
Millets																		
Oilseeds																		
Pulses	ICM	Popularizing Redgram var vamban 3 in rainfed ecosystem		10	2	0.84	0.72	15.0	Plant height – 89.2 (cm) Day to flowering - 90 days No of pods -32.5	95.2 115 days 28.9	10800	24750	13950	2.29	10800	21450	10650	1.98

	Drought managament	Popularisation of mini mobile sprinkler system in greengram / blackgram		10	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetables	**Storage**	Popularizing fruit and vegetables preservator		**4**	**3**	-	-	-	-	-	**750**	**900**	**250**	**1.20**	**710**	**775**	**65**	**1.05**
Flowers																		
Ornamental																		
Fruit	**Improving the productivity**	Popularsing foliar spray of SOP in banana		**10**	**4**	**40**	**32**	**75**	-	-	**91830**	**171240**	**79410**	**1.86**	**90000**	**129600**	**39600**	**1.44**
	Improving the productivity	Popularizion of baclobutrazol spray in mango		**10**	**4**	**4**	**7**	**4**	-	-	36000	63000	27000	1.76	20000	30076	10076	1.50
Spices and condiments																		
Commercial																		
Medicinal and aromatic																		

Fodder		Popularizing legume fodder Desmanthus in existing cumbu-napier grass		10	2	185	120	54	No. tillers/clump-22 No. leaves /clump-280 Desmanthus Plant height-56.5 cm Leaf-stem ratio:1:1.7	-	25600	81000	55400	3.16	21500	54000	32500	2.51
Plantation																		
Fibre																		
Others (pl.specify)	**Introduction of tree species**	Popularization of Casuarina junghuhniana in PVC area		**10**	**1**	-	-	-	**Plant height – 2.7 cm Girth – 8.6 cm**	**2.1 cm 7.9cm**		-	-	-	-	-	-	-
	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

Livestock

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Dairy		Popularization of yoghurt preparation from milk		10	20			Yoghurt sales increased from 25 % to 30 %	Production of yoghurt 10-15lt/day	10lts/day	For 10 lt of yoghurt Preparation **Rs 300.00** (Milk 10lt=260.00 Yoghurt culture-10.0 Milk powder-20.00 Sugar= 10.00)	For 10 lt of yoghurt Preparation **450.00**	**150.0**	**1.50**	For 10 lt of curd Preparation 260.00 1 lt	**Yield= 800 ml** 320.00	60.00	1.23
		Popularisation of salt lick mineral cake for calves.		200 calves	20			Initital body weight is 30kg/calf Body weight gain after 3 month is 82 kg/calf	82kg	30 kg								

Poultry		Popularisation of oral pellet vaccine against ranikhet disease in desi chicken		300 birds	20			• Ranikhet disease symptoms was not found in desi chicken after intake of oral pellet vaccine • Skill is not required for the farmers to implement this method • Easy to vaccinate the birds • Easy for administration Mortality rate was reduced in desi chick										

		Popularisation of turkey poulted bird		10	5/farmers			• Initial body weight is 720 gms/ turkey • Body weight of turkey at the 16 th week is 7 kg in case of male and 4.5 kg in case of female • Number of eggs laid – 81 eggs and each egg weighed about 70 gms • During marketing Male bird weighed about 7.5 kg whereas female bird weighed about 5.0 kg										
		Popularizing community incubator for backyard desi chicken and turkey farmers		3	3			• Use of incubator improved hatchability in desi chicken. • Hatchability is 80 percent. Increased the hatching capacity which inturn improved the farmers income. • Cost benefit ratio is high.										

Rabbitry																		
Pigerry																		
Sheep and goat																		
Duckery																		
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	** BCR
Common carps																		
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 demonstrated	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.)			
						Demonstration	Check									
Transpalnter, weeder, harvester	Rice	Mechanization in rice		10	2	5.5	4.8	10	1075 (90 %)				Rs 5075(45%)			

* 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

Demonstration details on crop hybrids

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
				Demonst-ration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Cereals										
Bajra										
Maize										
Rice	CORH 3	10	4	6100	5400	13	24750	57950	33200	2.34
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										

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	2	40	15	55	15	5	20	55	20	75
Resource Conservation Technologies	1	15	20	35	5	5	10	20	25	45
Cropping Systems	3	80	30	110	40	20	60	120	50	170
Crop Diversification								0	0	0
Integrated Farming								0	0	0
Micro Irrigation/Irrigation	5	250	30	280	75	20	95	325	50	375
Seed production	2	50	35	85	20	15	35	70	50	120
Nursery management	3	120	30	150	25	20	45	145	50	195
Integrated Crop Management	5	150	80	230	75	50	125	225	130	355
Soil and Water Conservation								0	0	0
Integrated Nutrient Management								0	0	0
Production of organic inputs								0	0	0
Others (pl.specify)								0	0	0
Horticulture								0	0	0
a) Vegetable Crops								0	0	0
Production of low value and high volume crop								0	0	0
Off-season vegetables								0	0	0
Nursery raising	2	40	25	65	25	15	40	65	40	105
Exotic vegetables								0	0	0
Export potential vegetables								0	0	0
Grading and standardization								0	0	0
Protective cultivation	2	55	35	90	15	10	25	70	45	115
Others (pl.specify)								0	0	0
b) Fruits								0	0	0
Training and Pruning	2	40	25	65	25	20	65	65	45	130
Layout and Management of Orchards								0	0	0
Cultivation of Fruit								0	0	0
Management of young plants/orchards								0	0	0
Rejuvenation of old orchards								0	0	0
Export potential fruits	4	80	25	105	35	25	60	115	50	165
Micro irrigation systems of orchards	5	120	50	170	45	25	70	165	75	240
Plant propagation techniques	3	50	40	90	35	25	55	85	65	145
Others (pl.specify)								0	0	0
c) Ornamental Plants								0	0	0
Nursery Management								0	0	0

Management of potted plants								0	0	0
Export potential of ornamental plants								0	0	0
Propagation techniques of Ornamental Plants								0	0	0
Others (pl.specify)								0	0	0
d) Plantation crops								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
e) Tuber crops								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
f) Spices								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
g) Medicinal and Aromatic Plants								0	0	0
Nursery management								0	0	0
Production and management technology	2	25	40	65	15	30	45	40	70	110
Post harvest technology and value addition								0	0	0
Others (pl.specify)								0	0	0
Soil Health and Fertility Management								0	0	0
Soil fertility management								0	0	0
Integrated water management								0	0	0
Integrated nutrient management	4	80	60	140	35	30	65	115	90	205
Production and use of organic inputs								0	0	0
Management of Problematic soils								0	0	0
Micro nutrient deficiency in crops	3	40	55	95	15	20	35	55	75	130
Nutrient use efficiency								0	0	0
Balanced use of fertilizers								0	0	0
Soil and water testing								0	0	0
Others (pl.specify)								0	0	0
Livestock Production and Management								0	0	0
Dairy Management								0	0	0
Poultry Management	2	30	40	70	20	40	60	50	80	130
Piggery Management								0	0	0
Rabbit Management								0	0	0
Animal Nutrition Management	2	25	20	45	25	20	45	50	40	90
Animal Disease Management								0	0	0
Feed and Fodder technology	3	50	20	70	40	25	65	90	45	135
Production of quality animal products								0	0	0

Others (pl.specify)								0	0	0
Home Science/Women empowerment								0	0	0
Household food security by kitchen gardening and nutrition gardening								0	0	0
Design and development of low/minimum cost diet								0	0	0
Designing and development for high nutrient efficiency diet								0	0	0
Minimization of nutrient loss in processing								0	0	0
Processing and cooking								0	0	0
Gender mainstreaming through SHGs								0	0	0
Storage loss minimization techniques	2	15	20	35	20	25	45	35	45	80
Value addition	5	75	25	100	30	40	70	105	65	170
Women empowerment								0	0	0
Location specific drudgery production								0	0	0
Rural Crafts								0	0	0
Women and child care								0	0	0
Others (pl.specify)								0	0	0
Agril. Engineering								0	0	0
Farm machinery and its maintenance	5	250	20	270	30	20	50	280	40	320
Installation and maintenance of micro irrigation systems	5	40	15	55	20	10	30	60	25	85
Use of Plastics in farming practices								0	0	0
Production of small tools and implements								0	0	0
Repair and maintenance of farm machinery and implements								0	0	0
Small scale processing and value addition								0	0	0
Post Harvest Technology	4	75	40	115	15	20	35	90	60	150
Others (pl.specify)								0	0	0
Plant Protection								0	0	0
Integrated Pest Management	10	85	60	145	30	25	55	115	85	200
Integrated Disease Management	5	40	25	65	15	20	35	55	45	100
Bio-control of pests and diseases	3	20	25	45	15	30	45	35	55	90
Production of bio control agents and bio pesticides								0	0	0
Others (pl.specify)								0	0	0
Fisheries								0	0	0
Integrated fish farming								0	0	0
Carp breeding and hatchery management								0	0	0
Carp fry and fingerling rearing								0	0	0
Composite fish culture								0	0	0
Hatchery management and culture of freshwater prawn								0	0	0
Breeding and culture of ornamental fishes								0	0	0
Portable plastic carp hatchery								0	0	0
Pen culture of fish and prawn								0	0	0
Shrimp farming								0	0	0
Edible oyster farming								0	0	0

Pearl culture								0	0	0
Fish processing and value addition								0	0	0
Others (pl.specify)								0	0	0
Production of Inputs at site								0	0	0
Seed Production								0	0	0
Planting material production	**35**	**250**	**150**	**400**	**75**	**80**	**150**	325	230	550
Bio-agents production								0	0	0
Bio-pesticides production								0	0	0
Bio-fertilizer production								0	0	0
Vermi-compost production	**10**	**75**	**25**	**100**	**45**	**50**	**95**	120	75	195
Organic manures production								0	0	0
Production of fry and fingerlings								0	0	0
Production of Bee-colonies and wax sheets								0	0	0
Small tools and implements								0	0	0
Production of livestock feed and fodder								0	0	0
Production of Fish feed								0	0	0
Mushroom production								0	0	0
Apiculture	**15**	**150**	**75**	**225**	**60**	**140**	**200**	210	215	425
Others (pl.specify)								0	0	0
Capacity Building and Group Dynamics								0	0	0
Leadership development								0	0	0
Group dynamics								0	0	0
Formation and Management of SHGs								0	0	0
Mobilization of social capital								0	0	0
Entrepreneurial development of farmers/youths	**4**	**25**	**30**	**55**	**15**	**20**	**35**	40	50	90
Others (pl.specify)								0	0	0
Agro-forestry								0	0	0
Production technologies								0	0	0
Nursery management	**5**	**80**	**45**	**125**	**30**	**25**	**55**	110	70	180
Integrated Farming Systems	**2**							0	0	0
Others (Pl. specify)								0	0	0
TOTAL	**165**	**2520**	**1230**	**3750**	**985**	**925**	**1920**	3505	2155	5670

Farmers' Training including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems	5	45	65	110	25	15	40	70	80	150
Crop Diversification								0	0	0
Integrated Farming	2	30	25	55	15	10	25	45	35	80
Micro Irrigation/Irrigation								0	0	0
Seed production								0	0	0
Nursery management								0	0	0
Integrated Crop Management	8	200	150	350	100	140	240	300	290	590
Soil and Water Conservation								0	0	0
Integrated Nutrient Management	4	150	25	175	40	50	90	190	75	265
Production of organic inputs	2	40	25	65	15	25	40	55	50	105
Others (pl.specify)								0	0	0
Horticulture								0	0	0
a) Vegetable Crops								0	0	0
Production of low value and high volume crop	2	25	15	40	30	20	50	55	35	90
Off-season vegetables								0	0	0
Nursery raising	3	20	15	35	20	20	40	40	35	75
Exotic vegetables								0	0	0
Export potential vegetables								0	0	0
Grading and standardization								0	0	0
Protective cultivation								0	0	0
Others (pl.specify)								0	0	0
b) Fruits								0	0	0
Training and Pruning								0	0	0
Layout and Management of Orchards								0	0	0
Cultivation of Fruit								0	0	0
Management of young plants/orchards								0	0	0
Rejuvenation of old orchards								0	0	0
Export potential fruits								0	0	0
Micro irrigation systems of orchards	2	25	30	55	15	30	45	40	60	100
Plant propagation techniques								0	0	0
Others (pl.specify)								0	0	0
c) Ornamental Plants								0	0	0
Nursery Management								0	0	0
Management of potted plants								0	0	0
Export potential of ornamental plants								0	0	0

Propagation techniques of Ornamental Plants								0	0	0
Others (pl.specify)								0	0	0
d) Plantation crops								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
e) Tuber crops								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
f) Spices								0	0	0
Production and Management technology								0	0	0
Processing and value addition								0	0	0
Others (pl.specify)								0	0	0
g) Medicinal and Aromatic Plants								0	0	0
Nursery management								0	0	0
Production and management technology								0	0	0
Post harvest technology and value addition								0	0	0
Others (pl.specify)								0	0	0
Soil Health and Fertility Management								0	0	0
Soil fertility management								0	0	0
Integrated water management								0	0	0
Integrated nutrient management								0	0	0
Production and use of organic inputs								0	0	0
Management of Problematic soils								0	0	0
Micro nutrient deficiency in crops								0	0	0
Nutrient use efficiency								0	0	0
Balanced use of fertilizers								0	0	0
Soil and water testing								0	0	0
Others (pl.specify)								0	0	0
Livestock Production and Management								0	0	0
Dairy Management	2	20	15	35	15	10	25	35	25	60
Poultry Management	2	30	25	55	15	20	35	45	45	90
Piggery Management								0	0	0
Rabbit Management								0	0	0
Animal Nutrition Management								0	0	0
Animal Disease Management								0	0	0
Feed and Fodder technology	2	15	30	45	15	15	30	30	45	75
Production of quality animal products								0	0	0
Others (pl.specify)								0	0	0
Home Science/Women empowerment								0	0	0

Household food security by kitchen gardening and nutrition gardening								0	0	0
Design and development of low/minimum cost diet								0	0	0
Designing and development for high nutrient efficiency diet								0	0	0
Minimization of nutrient loss in processing								0	0	0
Processing and cooking	2	10	30	40	5	20	25	15	50	65
Gender mainstreaming through SHGs								0	0	0
Storage loss minimization techniques	4	35	40	75	3	15	18	38	55	93
Value addition	5	20	45	65	30	40	70	50	85	135
Women empowerment	1	3	15	18	5	15	30	8	30	48
Location specific drudgery production								0	0	0
Rural Crafts								0	0	0
Women and child care								0	0	0
Others (pl.specify)								0	0	0
Agril. Engineering								0	0	0
Farm machinery and its maintenance	3	70	50	120	30	250	55	100	300	175
Installation and maintenance of micro irrigation systems	4	50	20	70	30	15	45	80	35	115
Use of Plastics in farming practices								0	0	0
Production of small tools and implements								0	0	0
Repair and maintenance of farm machinery and implements								0	0	0
Small scale processing and value addition								0	0	0
Post Harvest Technology	2	20	30	50	15	10	25	35	40	75
Others (pl.specify)								0	0	0
Plant Protection								0	0	0
Integrated Pest Management								0	0	0
Integrated Disease Management	3	25	30	55	40	20	60	65	50	115
Bio-control of pests and diseases	2	40	15	55	15	10	25	55	25	80
Production of bio control agents and bio pesticides								0	0	0
Others (pl.specify)								0	0	0
Fisheries								0	0	0
Integrated fish farming								0	0	0
Carp breeding and hatchery management								0	0	0
Carp fry and fingerling rearing								0	0	0
Composite fish culture								0	0	0
Hatchery management and culture of freshwater prawn								0	0	0
Breeding and culture of ornamental fishes								0	0	0
Portable plastic carp hatchery								0	0	0
Pen culture of fish and prawn								0	0	0
Shrimp farming								0	0	0
Edible oyster farming								0	0	0
Pearl culture								0	0	0
Fish processing and value addition								0	0	0

Others (pl.specify)								0	0	0
Production of Inputs at site								0	0	0
Seed Production	**2**	**25**	**20**	**45**	**15**	**25**	**40**	40	45	85
Planting material production								0	0	0
Bio-agents production								0	0	0
Bio-pesticides production								0	0	0
Bio-fertilizer production								0	0	0
Vermi-compost production	**2**	**30**	**25**	**55**	**15**	**10**	**25**	45	35	80
Organic manures production	**1**	**20**	**15**	**35**	**15**	**15**	**30**	35	30	65
Production of fry and fingerlings								0	0	0
Production of Bee-colonies and wax sheets								0	0	0
Small tools and implements								0	0	0
Production of livestock feed and fodder								0	0	0
Production of Fish feed								0	0	0
Mushroom production								0	0	0
Apiculture	**2**	**30**	**25**	**55**	**20**	**10**	**30**	50	35	85
Others (pl.specify)								0	0	0
Capacity Building and Group Dynamics								0	0	0
Leadership development								0	0	0
Group dynamics								0	0	0
Formation and Management of SHGs								0	0	0
Mobilization of social capital								0	0	0
Entrepreneurial development of farmers/youths								0	0	0
Others (pl.specify)								0	0	0
Agro-forestry								0	0	0
Production technologies	**2**	**30**	**25**	**55**	**30**	**25**	**55**	60	50	110
Nursery management								0	0	0
Integrated Farming Systems								0	0	0
Others (Pl. specify)								0	0	0
TOTAL	**69**	**1008**	**805**	**1813**	**573**	**835**	**1193**	**1581**	**1640**	**3006**

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

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Nursery Management of Horticulture crops	2	15	10	25	20	10	30	35	20	55
Training and pruning of orchards								0	0	0
Protected cultivation of vegetable crops	1	10	10	20	10	5	15	20	15	35
Commercial fruit production								0	0	0
Integrated farming								0	0	0
Seed production	3	30	20	50	15	15	30	45	35	80
Production of organic inputs	2	30	25	55	10	15	25	40	40	80

Planting material production								0	0	0
Vermi-culture	2	20	15	35	15	10	25	35	25	60
Mushroom Production								0	0	0
Bee-keeping	5	60	50	110	15	25	40	75	75	150
Sericulture								0	0	0
Repair and maintenance of farm machinery and implements								0	0	0
Value addition	5	35	15	50	25	25	50	60	40	100
Small scale processing								0	0	0
Post Harvest Technology	1	10	10	20	5	10	15	15	20	35
Tailoring and Stitching								0	0	0
Rural Crafts								0	0	0
Production of quality animal products								0	0	0
Dairying								0	0	0
Sheep and goat rearing								0	0	0
Quail farming								0	0	0
Piggery								0	0	0
Rabbit farming								0	0	0
Poultry production								0	0	0
Ornamental fisheries								0	0	0
Composite fish culture								0	0	0
Freshwater prawn culture								0	0	0
Shrimp farming								0	0	0
Pearl culture								0	0	0
Cold water fisheries								0	0	0
Fish harvest and processing technology								0	0	0
Fry and fingerling rearing								0	0	0
Any other (pl.specify)								0	0	0
TOTAL	21	210	155	365	115	115	230	325	270	595

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	2	25	30	55	15	10	25	40	40	80
Training and pruning of orchards								0	0	0
Protected cultivation of vegetable crops								0	0	0
Commercial fruit production								0	0	0
Integrated farming	2	30	25	55	15	15	30	45	40	85
Seed production								0	0	0
Production of organic inputs	3	20	30	50	15	10	25	35	40	75
Planting material production	4	25	30	55	10	15	25	35	45	80
Vermi-culture								0	0	0
Mushroom Production								0	0	0
Bee-keeping	6	50	30	80	25	15	40	75	45	120
Sericulture								0	0	0
Repair and maintenance of farm machinery and implements								0	0	0
Value addition	5	45	15	60	15	10	25	60	25	85
Small scale processing								0	0	0
Post Harvest Technology								0	0	0
Tailoring and Stitching								0	0	0
Rural Crafts								0	0	0
Production of quality animal products								0	0	0
Dairying								0	0	0
Sheep and goat rearing								0	0	0
Quail farming								0	0	0
Piggery								0	0	0
Rabbit farming								0	0	0
Poultry production								0	0	0
Ornamental fisheries								0	0	0
Composite fish culture								0	0	0
Freshwater prawn culture								0	0	0
Shrimp farming								0	0	0
Pearl culture								0	0	0
Cold water fisheries								0	0	0
Fish harvest and processing technology								0	0	0
Fry and fingerling rearing								0	0	0
Any other (pl.specify)								40	40	80
TOTAL	22	195	160	355	95	75	170	290	235	525

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	5	150	40	190	5	3	8	155	43	193
Integrated Pest Management	4	140	35	175	10	5	15	150	40	190
Integrated Nutrient management	6	170	50	220	15	8	23	185	58	234
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs	1	20	5	25				20	5	25
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	1	40	10	50	5	2	7	45	12	57
Management in farm animals										
Livestock feed and fodder production	2	50	25	75	4	5	9	54	30	84
Household food security										
Any other (pl.specify)										
Total	19	570	165	735	39	23	62	609	188	783

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	3	40	35	75	15	10	25	55	45	100
Integrated Pest Management	2	60	30	90				60	30	90
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
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	2	30	25	55	5	10	15	35	35	70
Household food security	2	40	10	50	10	15	25	50	25	75
Any other (pl.specify)										
Total	9	170	100	270	30	35	65	200	135	335

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	**4**	**50**	**40**	**90**	**10**	**15**	**25**	**60**	**55**	**115**
1.b.	Commercial production of vegetables	**8**	**150**	**60**	**210**	**20**	**25**	**45**	**170**	**85**	**255**
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**	**2**	**25**	**10**	**35**	**10**	**15**	**25**	**35**	**25**	**60**
5	**Methods of protective cultivation**										
6	**Others (pl.specify)**										
7	**Post harvest technology and value addition**	**2**	**35**	**20**	**55**	**10**	**15**	**25**	**45**	**35**	**80**
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
8	**Farm machinery**										
8.a.	Farm machinery, tools and implements	**3**	**50**	**10**	**60**	**20**	**15**	**35**	**70**	**25**	**95**
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	**5**	**10**	**60**	**70**	**10**	**35**	**45**	**20**	**95**	**115**
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)										
	Total	**24**	**320**	**200**	**520**	**80**	**120**	**200**	**400**	**320**	**720**

Details of vocational training programmes carried out for rural youth

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**										
1.a.	Commercial floriculture										
1.b.	Commercial fruit production										
1.c.	Commercial vegetable production										
1.d.	Integrated crop management	**3**	**95**	**10**	**105**	**15**	**15**	**30**	**110**	**25**	**135**
1.e.	Organic farming										
1.f.	Others (pl.specify)										
2	**Post harvest technology and value addition**										
2.a.	Value addition	**2**	**40**	**25**	**65**	**20**	**10**	**30**	**60**	**35**	**95**
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	**3**	**90**	**40**	**130**	**25**	**20**	**45**	**115**	**60**	**175**
4.b.	Production of bio-agents, bio-pesticides,										

	bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery and implements										
4.d.	Rural Crafts										
4.e.	Seed production	**3**	**40**	**30**	**120**	**25**	**15**	**40**	**65**	**45**	**110**
4.f.	Sericulture										
4.g.	Mushroom cultivation										
4.h.	Nursery, grafting etc.	**4**	**105**	**55**	**160**	**5**	**15**	**20**	**110**	**70**	**180**
4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agril. 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	**15**	**370**	**160**	**580**	**90**	**75**	**165**	**460**	**235**	**695**

V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	220	150	25	175
Diagnostic visits	125	100	25	125
Field Day	40	1950	5	1955
Group discussions	60	900		900
Kisan Ghosthi	-	-	-	-
Film Show	25	650		650
Self -help groups	10	400	-	400
Kisan Mela	2	350	6	356
Exhibition	10	750	5	755
Scientists' visit to farmers field	100	100	-	100
Plant/animal health camps	-	-	-	-
Farm Science Club	-	-	-	-
Ex-trainees Sammelan	-	-	-	-
Farmers' seminar/workshop	5	270	-	270
Method Demonstrations	40	900	50	950
Celebration of important days	-	-	-	-
Special day celebration (Parthenium week)	1	75	5	80
Exposure visits	5	250	-	250
Others (pl.specify)				
Total	**643**	**6845**	**121**	**6966**

Details of other extension programmes

Particulars	Number
Electronic Media	-
Extension Literature	-
News Letter	300
News paper coverage	7
Technical Articles	2
Technical Bulletins	250
Technical Reports	
Radio Talks	6
TV Talks	-
Animal health amps (Number of animals treated)	-
Others (pl.specify)	-
Total	**565**

VI. 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					
Oilseeds	Gingelly	TMV-7	100 kg	5000	25
Pulses	Blackgram Redgram	Vamban-4 Vamban -3	150 kg 90 kg	16800	20 10
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds					
Fiber crops					
Forest Species					
Others					
Total					

Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Number	Value (Rs.)	Number of farmers
Commercial					
Vegetable seedlings	Tomato seedlings	Lakshmi	4000	2000	5
Fruits					
Ornamental plants					
Medicinal and Aromatic					
Plantation					
Spices					
Tuber					
Fodder crop saplings	Grass slips	CN-grass CO-4	1500	750	20
Forest Species					
Others					
Total					

Production of Bio-Products

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

Production of livestock and related enterprise 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 2010-11

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 - one

Sl. No	Date	Major recommendations of SACs which are to be implemented during 2011-12
1	13-09-10	A comparative study on cono weeder in machine planting and marker planting has to be made Enrolling membership in National Bee Board has to be arranged for honey bee bearers. Popularizing coconut tree climber for extension personnel Promoting green fodder cultivation through FLD programmes . Mechanization in rice farming can be promoted Success stories and latest technologies can be broadcasted through AIR.

IX. NEWSLETTER

Number of issues of newsletter published
2

X. RESEARCH PAPER PUBLISHED

Number of research paper published
2

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

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

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