PROFORMA FOR ANNUAL REPORT 2010-11

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(FOR THE PERIOD APRIL 2010 TO MARCH 2011)

KRISHI VIGYAN KENDRA - PERAMBALUR.

PART I - GENERAL INFORMATION ABOUT THE KVK

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

KVK Address	Telephone		E mail	Web Address
	Office	Fax		
Hans Roever Krishi Vigyan Kendra Valikandapuram – 621 115. Perambalur District Tamil Nadu, South India	04328 – 293251, 293592	--	pblr_kvk06@yahoo.co.in, kvkpblr@rediffmail.com	**www.roeverkvk.res.in**

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

Address	Telephone		E mail	Web Address
	Office	Fax		
St. John Sangam Trust Roever Campus Perambalur – 621 212. Perambalur District	04328 - 277418	04328 - 278110	sjst@rediffmail.com	www.roeveredu.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. R. Marimuthu	--	09443729789	pblrkvk@yahoo.in

1.4. Year of sanction: 2002

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. R. Marimuthu	Programme Coordinator	M	Agronomy	M.Sc.(Ag.), Ph.D.,	37400-67000 +GP9000	38800	14.03.2007	Permanent	OBC
2	SMS	Mr. J. Kathiravan	Subject Matter Specialist	M	Horticulture	M.Sc.(Horti.)	15600-39100 +GP 5400	17550	16.08.2007	Permanent	SC
3	SMS	Dr. P. Sivakumar	Subject Matter Specialist	M	SMS – Animal Science	M.V.Sc.,	15600-39100+ GP 5400	15600	28.07.2010	Permanent	SC
4	SMS	Mrs. P. Vijayalakshmi	Subject Matter Specialist	F	Home science	M.Sc.(Home Sci.)	15600-39100 +GP 5400	18240	18.01.2006	Permanent	OBC
5	SMS	Mr. C. Sankar	Subject Matter Specialist	M	Plant protection	M.Sc. (Agrl.Ento.)	15600-39100 +GP 5400	19920	01.10.2002	Permanent	SC
6	SMS	Vacant									
7	SMS	Vacant									
8	Programme Assistant(Lab Tech.)/T-4	Mr. N. SatishKumar	Lab Technician	M	Agriculture	B.Sc.(Agri.)	9300-34800 +GP 4200	10670	02.11.2009	Permanent	FC
9	Programme Assistant (Computer)/ T-4	Mrs.R. Vidhya	Programme Assistant	F	Computer programmer	M.Sc.(I.T),	9300-34800 +GP 4200	12060	18.01.2006	Permanent	OBC
10	Programme Assistant/ Farm Manager	Mr. V. Karuppasamy	Farm Manager	M	Agriculture	B.Sc.(Ag.),	9300-34800 +GP 4200	11580	16.03.2007	Permanent	SC
11	Assistant	Mr. P. Jayaraman	Assistant	M	Assistant	B.Com,	9300-34800 +GP 4200	13700	01.10.2002	Permanent	OBC
12	Jr. Stenographer	Mr. S. Chandrasekar	Stenographer	M	Stenographer cum computer operator	B.A.(Eco.),	5200-20200 +GP 2400	8370	14.11.2007	Permanent	OBC
13	Driver	Mr. P. Anbazhagan	Driver	M	Driver cum mechanic	XII	5200-20200 +GP 2000	7360	19.03.2004	Permanent	SC
14	Driver	Mr. R. Hariharan	Driver	M	Driver cum mechanic	D.M.E	5200-20200 +GP 2000	7360	01.12.2004	Permanent	OBC
15	Supporting staff	Mr. K. Periyasamy	Supporting staff	M	Supporting staff	XII	5200-20200 +GP 1800	6720	01.10.2002	Permanent	SC
16	Supporting staff	Mr. R. Selvakumar	Supporting staff	M	Supporting staff	X	5200-20200 +GP 1800	6720	01.10.2002	Permanent	OBC

1.6. Total land with KVK (in ha) : 21.54 ha

S. No.	Item	Area (ha)
1	Under Buildings	0.12
2.	Under Demonstration Units	0.016
3.	Under Crops	13.88
4.	Orchard Agro-forestry	4.17 0.152
5.	**Others** Roads Pond Wasteland	 1.65 0.22 1.4

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	16.03.2006	500	35,89,821 (Awaiting for escalation)	-	-	-
2.	**Farmers Hostel**	ICAR	03.05.2007	300	26,98,679	-	-	-
3.	**Staff Quarters**	ICAR	03.05.2007	400	34,96,000	-	-	-
	Demonstration Units					-	-	-
	1 Poly house	ICAR	31.03.2007	80	1,00,000	-	-	-
	2 Boer goat unit	ICAR	31.03.2007	80	1,00,000	-	-	-
	3 Sericulture	Management	15.09.2007	147	1,25,000	-	-	-
	4 Mushroom	Management	20.10.2006	58	60,000	-	-	-
	5 Forage crops	Management	10.03.2008	4000	6,000	-	-	-
4.	6 Shade net house	Management	18.02.2007	308	60,000	-	-	-
	Fencing	ICAR	31.03.2007	1800 rm	1,79,500	-	-	-
	Rain Water harvesting system	ICAR	31.03.2007	14 ha	10,00,000	-	-	-
	Threshing floor	ICAR	31.03.2011	450	3,00,000	-	-	-
	Storage godown	ICAR	31.03.2011	101.99	3,00,000	-	-	-
	Vehicle & Implement Shed	ICAR	31.03.2011	92.903	3,00,000			

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (Tempo Trax Cruiser) (Rs. 5,00,000 ICAR fund)	04.03.2004	5,01,374.00	1,00,932	Good condition
Motor cycle(Hero Honda CD Deluxe) (Rs. 40,000 ICAR fund)	24.03.2006	40,430.00	53,682	Good condition
Yamaha Gladiator (Rs.50,000 ICAR Fund)	06.03.2009	50,000.00	28,584	Good condition

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
i. Equipment			
FAX system	2004	25,250.00	Need Replacement
Tractor with accessories	2004	4,99.852.00	Working
Xerox 5816 Plus copier	2004	89,000.00	Need Replacement
Computer, Printer and UPS	2004	75,000.00	Working
Laptop computer with accessories including LCD	2007	99,950.00	Working
ii. AV Aids and Teaching material			
Slide Projector Kendermann 35 MM automatic slide projector with 24V. 150W halogen lamp, 50 slides linear tray, forward and reverse operation on remote control with auto focus	2004	25,000.00	Not Working
Over Head Projector with screen (2), Stand and trolley	2004	25,000.00	Repair
Sony Digital camera	2010	25,000.00	Working

1.8. Details SAC meeting conducted in 2010-11

Sl.No.	Date	Number of Participants	No. of absentees	Salient Recommendations	Action taken
1.	20.07.2011	39	-	1. Concentrate in Seed production & Integrated cropping system	Concentrated on production of Forage Crops slips and seed and pulses.
				2. Technologies to be introduced to reduce the post harvest losses.	Introduced groundnut stripper, Turmeric Boiler and vegetable preservator to reduce post harvest losses
				3. To introduce Farm machineries, equipments in crop production/cultivation	Modified Coconut climber, Mobile sprinkler, Sugarcane Detrasher, Ceisal Plough, Power Weeder, Mist blower were introduced.
				4. Importance of Rainwater Harvesting System and insist the Farmers to do the same.	Training and demonstrations were conducted with regard to Rain Water Harvesting System
				5. Trainings to the Farmers in the field of value addition of their produces	Conducted training on value addition in Tapioca, Tomato, lentil dhall and milk
				6. Technology Park to be established in KVK for the benefit of Farmers round the year.	A Model Poultry Unit, fodder bank, Drip system has been established.
				7. One Technocrat per village.	We have concentrated on creation of Technocrat in our operational villages.

PART II - DETAILS OF DISTRICT

2.1. Major farming systems/enterprises

S. No	Farming system/enterprise
1	Cereal based cropping system Oilseeds based cropping system Cash crop based cropping system Vegetable based cropping system Dairy based farming system

2.2. Description of Agro-climatic zone & major agro ecological situations

S. No	Agro-climatic Zone	Characteristics
1	North – Eastern zone	A part of Perambalur district comes under this zone, which covers Senthurai, Jayankondam, Andimadam, Veppur and Kunnam taluk. It receives an annual rainfall of 900 – 975 mm during the north east monsoon period. The mean maximum temperature ranges from 28.5 to 38.4^{o} C while the mean minimum temperature is from 21 to 28^{o}C. The major soil types are red sandy loam, clayey loam and saline soil. The major irrigation sources are tanks, wells and tube wells. Since the rainfall is uniformly distributed from July to December, two crop sequences of groundnut followed by pulses or sesamum are practiced. The other crops like sugarcane and millets are raised with the help of well irrigation.
2	North – Western zone	A part of Perambalur district comes under this zone, which covers Veppanthattai, Perambalur and Alathur blocks. The mean annual rainfall is 875 mm and about 42 per cent of rainfall is received during the South-West monsoon period. The mean monthly maximum temperature is from 31 to 39 ^{o} C. The major soils are non – calcareous red, black cotton soil and clay soil. Cultivation in drylands commences from the month of June to August which depends on the south west monsoon and monocropping is followed. In this zone, a significant practice of maize, cotton and chillies under purely rainfed cultivation is followed and paddy, sugarcane, elephant foot yam, onion, tomato and tapioca are cultivated with the help of well irrigation.

Sl.No.	Agro ecological situation	Characteristics
1	Dry region	Perambalur district comes under Cd.5.5: dry sub humid of Tamilnadu with a crop growing period of 150 – 180 days moderately large moisture availability.
2	Sub –humid-coastal plain	

2.3 Soil types

In Perambalur district, 18 soil series have been identified

Slno	Name of the soil series	Soil type	Characteristics		Total area(ha)	Percentage
			Potentials	Limitations		
1	Alangudi	Sandy clay loam	Very deep, moderately drained, medium to high CEC, high WHC	Slow permeability, low organic matter, alkaline in reaction, calcareousness	569	0.15
2	Anganur	Clay loam	Very deep, slow permeability, high WHC and CEC, high organic matter, free from salinity	Moderately alkaline	10,533	2.85
3	Ariyalur	Clay	Very deep, moderately drained, high WHC and CEC, free from salinity	Moderately alkaline, calcareousness	9,872	2.67
4	Ayichavadi	Clay	Deep, loamy textured, moderately well drained, high WHC and CEC, high organic matter, free from salinity	Gravelly clay loam to loam in sub surface, moderately alkaline, calcareousness	6,542	1.77
5	Kalathur	Clay	Very deep, loamy textured, very gentle slope, high WHC, CEC and organic matter	Slow permeability, critical EC in sub soil, calcareousness, slight erosion	16,219	4.39
6	Kallagam	Sandy clay	Very deep, fine loamy, very gentle slope, high WHC, medium CEC, neutral reaction, Non – calcareousness	Slightly acidic, moderate sheet erosion	7,351	1.99
7	Kallakudi	Clay	Very deep, fine textured, very deep gentle slope, high WHC and CEC	Slow permeability, well drained, moderately alkaline	24,888	6.74
8	Kurumbalur	Loamysand	Very deep, loamy textured, moderately rapid permeability, well drained neutral reaction, free from salinity	Low WHC and CEC, low organic matter, moderately alkaline	6,854	1.86
9	Madukkur	Sandy loam	Very deep, loamy textured in surface, high WHC, free from alkalinity, moderate rapid permeability, neutral reaction, non-calcareousness	Clay in sub surface, low CEC, moderately alkaline reaction moderate erosion	61,632	16.70

10	Mudukulam	Sandy loam	Very deep, loamy textured, free from salinity, non calcareousness	Low WHC, low organic matter, acid reaction	8,938	2.42
11	Nayakkan - palayam	Sandy loam	Very deep, loamy textured, free from salinity	Low WHC and CEC, low organic matter	126	0.04
12	Padalur	Loamy sand	Coarse loamy textured, rapid permeability, well drained, neutral reaction, free from salinity	Low WHC and CEC, low organic matter, mildly alkaline	8,029	2.18
13	Padugai	Loam	Very deep soil, loamy textured, medium CEC, neutral reaction	Rapidly permeable, low WHC, low organic matter	401	0.12
14	Palathurai	Loamy sand	Deep soil, loamy textured, neutral reaction, medium CEC	Low organic matter, mildly alkaline reaction, calcareousness	3,574	0.97
15	Pattukottai	Sandy loam	Very deep, loamy on sub surface, neutral reaction, free from salinity	Low WHC and CEC, low organic matter, acidic reaction	34,589	9.37
16	Pilamedu	Clay	Very deep, clay loam to clay, high WHC and CEC, high organic matter, free from salinity	Moderately slow permeability, moderately alkaline, strongly calcareousness	62,197	16.85
17	Thevaiyur	Sandy clay loam	Deep soil, fine loamy textured, medium WHC and CEC, neutral reaction, free from salinity	Low organic matter, mildly alkaline, slightly calcareousness	3,475	0.94
18	Vallam	Sandy loam	Deep, loamy textured, well drained, free from salinity	Rapid permeability, low WHC and CEC, low organic matter, acidic reaction	14,114	3.82

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

S. No	Crop	Area (ha)	Production (Lakh Metric tons)	Productivity (kg /ha)
1	Paddy	36706	1.922	4749.3
2	Maize	47521	0.587	1236.0
3	Groundnut	18397	0.308	1673.0
4	Gingelly	1172	0.003	219.0
5	Sunflower	1148	0.008	683.0
6	Cotton - Lint	23808	0.155	672.0
7	Sugarcane - Gur	13646	0.746	5465.0
8	Tapioca	1430	0.761	53150.0
9	Onion	7300	0.551	7550.0
10	Chillies	402	0.0014	350.0
11	Turmeric	385	0.193	5000.0

Source: State Department of Agriculture, TamilNadu

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April 010	0000.00	38.88	26.58	56.92
May 010	0120.50	38.10	26.80	60.50
June 010	0094.00	35.70	25.80	62.00
July 010	0040.00	34.05	25.23	59.06
August 010	0166.00	34.26	24.82	67.04
September 010	0122.00	32.75	23.87	72.16
October 010	0162.00	32.45	23.82	75.21
November '010	0370.00	28.87	22.46	88.85
December 010	0082.95	28.73	21.93	81.60
January 011	0002.50	29.93	20.68	71.69
February 011	0000.00	31.58	20.53	71.39
March 011	0000.00	35.20	21.10	58.70
	1159.95	**33.375**	**23.64**	**68.76**

Source: Agro Climate Research Centre, TNAU, Coimbatore

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

Category	Population	Production	Productivity
Cattle			
Crossbred	1,84,209	395.45(in lakhs lit.)	3,550 lit
Indigenous	1,35,250	218.45(in lakhs lit.)	925 lit
Buffalo	24,341	2.98(in lakhs lit.)	2,215 lit
Sheep	96,175	15,80,716kg	21.5kg
Goats			
Cross breed	75,275	18,06,600 kg	24.25 kg
Indigeneous	3,72,142	63,26,417 kg	17 kg
Pigs			
Crossbred	3,187	--	--
Indigenous	20,818	--	--
Rabbits	450	--	--
Poultry			
Desi chicken	2,62,330	1,57,39,800 nos	90 nos
Improved chicken	17,211	35,19080 nos	280 nos
Ducks	275	**--**	**--**
Turkey	750	**--**	**--**
Others	910	**--**	**--**
Category	**Area**	**Production**	**Productivity**
Fish			
Inland	466 ha	6,480 ton	1.87 ton

Source: State Department of Animal Husbandry, Perambalur

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

Yes

2.8 Details of Operational area / Villages

Sl. No.	Taluk	Blocks	Villages	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises being practiced	Major problems identified	Identified thrust areas
1	Perambalur	Perambalur	Chathiramanai	One	Onion, Paddy, Bajra, Groundnut, Maize, Sesamum, Blackgram, Redgaram	**Paddy** Stem borer incidence Leaf folder incidence Gall fly incidence BPH incidence Blast incidence False smut incidence Soil salinity Khaira disease **Maize** Judicious nutrient application Monocropping Ill filled grains Shoot borer incidence Water scarcity **Cotton** Reddening Sucking pest incidence Flower and square drop Heavy weed incidence Mealy bug incidence Mirid bug incidence Parawilt incidence Myrothecium blight incidence Water scarcity **Bajra** Stunted growth, Downy mildew Labour scarcity	**Paddy** Integrated Pest and Disease Management **Maize** ICM, Irrigation management **Cotton** Integrated Crop Management Popularization of improved variety Introduction of farm implements Popularization of new variety
2	Kunnam	Alathur	Puthukuruchi	Two	Cotton, Onion, Maize, Paddy, Groundnut, Redgram, Acidlime, Marigold, Beetroot, Jasmine		
3	Veppanthattai	Veppanthattai	Poolambadi	One	Paddy, Turmeric, Tapioca, Sugarcane, Sesamum, Blackgram, Arecanut		
4	Kunnam	Veppur	Nallur	One	Maize, Cotton, Paddy, Sugarcane, Turmeric, Redgram, Tapioca		
5	Veppanthattai	Veppanthattai	Venbavur	Two	Bhendi, Brinjal, Tomato, Cotton, Maize, Sunflower, Groundnut, Blackgram, Chillies		

6	Kunnam	Veppur	Sithali	One	Gourds, Maize, Cotton, Paddy, Groundnut, Tapioca, Turmeric, Redgram, Yam	**Small onion** Poor quality seed bulbs Thrips incidence Bulb rot incidence Stunted growth Leaf folder incidence Sprouting and decaying of bulbs Tip drying Twister blight **Brinjal** Shoot and fruit borer incidence Little leaf of brinjal Fruit drop Poor yield **Groundnut** Spodoptera incidence Pod borer incidence Heavy dose of fertilizer application Stunted and rosette appearance Chlorosis Leaf miner incidence Tikka and Rust incidence Poor pod filling Labour scarcity **Redgram** Pod borer incidence Flower webber incidence Sterility mosaic disease **Sesamum** Poor seed formation Low yield Less productive branches	**Small onion** Selection of good quality bulbs Integrated Crop Management Post harvest technology **Brinjal** IPM in brinjal Integrated nutrient management Popularization of improved variety **Groundnut** Integrated Pest and Disease management Integrated Nutrient Management Introduction of groundnut stripper **Redgram** Introduction of new variety Improved production technologies Integrated Pest Management **Sesamum** Micronutrient and growth regulator application Nipping Integrated Nutrient Management

						Black gram Yellow mosaic disease Yellowing Leaf curling Mealy bug attack Aphid incidence **Sugarcane** Early shoot borer Side tiller occurrence Labour scarcity Rodent incidence Micronutrient deficiency **Chillies** Poor yield unawareness of improved varieties Sucking pest incidence Pod borer incidence Flower drop Leaf curling virus attack Dieback Pod borer **Tomato** Low Market Value **Turmeric** Marginal chlorosis and necrosis Rhizome rot incidence Non availability of turmeric boiler and labour scarcity **Elephant foot yam** Heavy weed infestation Tuber rot incidence **Dairy** Anestrum Repeat breeding Long intercalving period Outbreak of viral & bacterial diseases and metabolic diseases.	**Black gram** Integrated Pest Management Popularizing mosaic resistant variety Soil Nutrient management **Sugarcane** Integrated Pest management Popularization of sugarcane detrasher Use of machineries in sugarcane cultivation **Chillies** Integrated Nutrient Management Integrated Pest and Disease Management **Tomato** Value addition **Turmeric** Integrated crop management Popularization of turmeric boiler **Elephant foot yam** Cropping system management Integrated disease management **Dairy** Breeding management Integrated Nutrient management Integreated Disease management

						Early calf mortality Low milk yield Scarcity of green fodders **Sheep and Goat** High Mortality in kids and lambs Poor body weight gain, Low twining percentage High incidence of disease outbreak **Desibird** Outbreak of Ranikhet disease Low body weight gain High mortality Poor egg laying and egg weight **Others** SHG need based training	Disease management in goat and sheep Scientific management goat & lamb Integrated Disease management in goat and sheep . **Desibird** Ranikhet disease management Scientific method of Backyard poultry rearing Integrated Nutrient management **Others** Vermicompost Mushroom culture Sericulture Tailoring Embroidary Toys making

2.9 Priority thrust areas

S. No	Thrust area
1	Integrated crop management
2	Integrated pest and disease management
3	Water stress management
4	Scientific feeding in dairy cows / goat
5	Disease Management in Desibirds
6	Promotion of rain water harvesting
7	Popularization of micro irrigation
8	Improved production technologies
9	Introduction of new implements
10	Popularization of new varieties / hybrids
11	Drudgery reduction
12	Value addition

PART III - TECHNICAL ACHIEVEMENTS

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

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
8	8	110	110	12	12	292	310

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
114	123	2300	3286	1019	50		39032

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
31.7	21.57 qtl, 177280 setts and 2 pkt	8730	10598

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
20	9	-	-

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

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products N0/ Kg	
2010-2011														
1	Transplanting technique	Redgram	Mixed cropping Poor plant population	Assessment of planting methods in redgram	-	3	-	1	6	Seed – 0.4	-	-	Rhizobium Phosphobacteria *T.viride*	13 kg 13 kg 0.5 kg
2	Drought management	Bittergourd	Stress due to insufficient water	Water stress management in bittergourd	-	4	-	1	8	-	-	-	-	-
3	Varietal assessment	Brinjal	Detachment of fruits from calyx during rainy season	Assessing the performance of brinjal hybrids	-	2	-	-	8	CoBH2 – 0.02 Arka Anand – 0.02	-	-	Azospirillum Phosphobacteria T.viride Pseudomonas	4 kg 4 kg 10 kg 10 kg
4	Weed management	Yam	Heavy weed menace in yam led to reduction in crop growth and ultimately the corm yield	Weed management in yam through intercropping	-	5	-	-	4	Groundnut seed – 10 kg Cowpea seed – 2 kg	-	-	T.viride- Pseudomonas Rhizobium	500 g 500 g 400 g
5	Integrated Disease Management	Paddy	False smut incidence	Assessment of suitable technology for management of false smut in paddy	-	2	-	1	12	0	0	0	-	-
6	Value addition	Tomato	Lack of knowledge in tomato value addition	Assessment of suitable variety for value addition	-	2			5	Tomato seeds - 0.001	-	-	-	-
7	Macro mineral management	Dairy	Low milk yield and poor conception rate	Area specific mineral mixture for dairy cows	-	3	-	-	2	-	-	-	-	-
8	Ranikhet disease management	Poultry	Mortality in birds	Control of Ranikhet disease by oral pellet vaccine	-	2	-	-	3	-	-	-	-	-
9	Forage crop production	Fodder bank	Non availability of high palatable crop	-	Popularization of fodder bank at village level	1	-	-	-	Desmanthus -0.75 Cow pea – 0.20	Co4 slips – 40000 Guinea grass slips 40000			
10	Popularization of new variety	Bajra	Downey mildew Low yield	-	Popularization of new variety in cumbu	1	-	-	2	Seed – 0.15	-	-	Azospirillum Phosphobacteria	10.5 kg 10.5 kg
11	ICM	Small onion	Nutritional disorder Severe pest and	-	Integrated crop management in small onion	10	-	1	11	-	-	-	T.viride Pseudomonas Azospirillum	10 kg 10 kg 10 kg

			disease incidence										Phosphobacteria VAM	10 kg 25 kg
12	ICM in chillies	Chillies	Flower drop Poor yield	--	ICM in chillies	2	-	-	3	-	-	-	Pseudomonas T.viride Azaspirillum Phophobacteria	3 kg 1 kg 2 kg 2 kg
13	Integrated Pest Management	Paddy	BPH incidence	-	BPH management in paddy	2	0	1	13	-	-	-	-	15 lit
14	Popularization of Mineral cake	Goat	Long kidding interval	-	Popularization of salt lick mineral cake for goats	1	-	-	4	-	-	-	-	-
15	Disease management	Poultry	Frequent outbreak and heavy mortality in birds	-	Management of ranikhet Disease	2	1	-	-	3	-	-	-	-
16	Drought management	Implements (Maize, Blackgram, Groundnut)	Acute water scarcity during cropping period	-	Popularization of mini portable sprinkler to mitigate the stress management in rainfed and irrigated crops	1	-	-	2	-	-	-	-	-
17	Drudgery reduction	Implements (Coconut)	Acute labour scarcity	-	Populariztion of modified coconut climber	2	-	-	3	-	-	-	-	-
18	Seperating the groundnut pods by using groundnut stripper	Implements (Groundnut stripper))	Labour scarcity	-	Popularization of Groundnut stripper	2	-	-	8	-	-	-	-	-
19	Popularization of incubator	Poultry-Incubator	Low hatchability	-	Popularization of new incubator among SHG members	2	-	-	3	-	-	-	-	-
20	ICM	Sesamum	Poor plant population Shattering varieties	-	Improved production technology in sesamum	1	-	-	4	Seed – 0.25	-	-	Neemcake Azospirillum Phosphobacteria Pseudomonas	500 kg 13 kg 13 kg 0.25 kg
21	ICM	Blackgram	Heavy incidence of YMV	-	ICM in blackgram	1	-	-	3	Seed – 1.0	-	-	Rhizobium Phosphobacteria T.viride	13 kg 13 kg 0.4 kg
22	Popularization of long staple cotton	Cotton	Lack of knowledge on production technology	-	Cotton production technology	9	-	2	24	-	-	-	Azospirillum Phosphobacteria NSKE	52 kg 52 kg 500 kg
2009-2010														
1	Varietal assessment	Chillies	Poor performance of crop due to repeated use of same cultivar	Assessment of performance of chilli varieties	-	2	-	-	7	G4 seed - 0.02 KKM1 seed – 0.02	-	-	-	-
2	Breeding management	Dairy	Failure to show to estrus and delay in conceptions	Management of Anestrus in cross breed cows	-	2	-	-	4	-	-	-	-	-

3	Ranikhet disease management	Poultry	Mortality in birds	Control of Ranikhet disease in desichicken	-	2	-	-	3	-	-	-	-	-
4	Integrated crop management	Acidlime	Flower and fruit drop	-	Fruit drop management in acidlime	2	-	-	5		-	-		
5	Varietal introduction	Multiplier onion	More bulb cost	-	Cultivation of multiplier onion through seed	5	-	-	6	Co(on)-5 -0.1	-	-	Azospirillum Phosphobacteria Pseudomonas	30 kg 30 kg 31 kg
6	Integrated Crop Management	Fodder cowpea	Non availability of green fodder	-	Fodder cowpea	1	-	-	2	Seed 1.0	-	-	-	-
7	Nutrition management	Goat	Low production under weight of kids	-	Improving the productivity of goat	1	-	-	3	-	-	-	-	-
8	Introduction of new variety	Turkey	Non availability of improved breeds and low body weight gain	-	Popularization of new variety Beltsvile small white	1	-	-	4	-	-	Turkey – 200	-	-
9	Introduction of new variety	Poultry desibird	Non availability of improved breed and low body weight gain	-	Popularization of new variety Rhodowhite	1	-	-	4	-	-	Rhodowhite -200	-	-
10	Concentrate Feed	Dairy	Scarcity and High cost of Concentrate feed.	-	Preparation of Low cost concentrate feed for Dairy cows.	1	-	-	3	-	-	-	-	-

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 of planting methods in redgram	UAS, Dharwad 2009-10	Redgram	1	-	4	6
2	Water stress management in bittergourd	AVRDC 2008	Bittergourd	1	-	5	8
3	Assessing the performance of brinjal hybrids	TNAU & IIHR	Brinjal	1	-	2	8
4	Weed management in yam through intercropping	AVRDC – 2009	Yam	1	-	3	4
5	Assessment of suitable technology for management of false smut in paddy	TNAU	Paddy	1	0	2	12
6	Assessment of suitable variety for value addition	IIHR	Tomato	1	-	2	4
7	Area specific mineral mixture for dairy cows	TANUVAS 2010	Dairy	1	-	1	1
8	Control of Ranikhet disease by oral pellet vaccine	TANUVAS 2010	Poultry – desibirds	1	-	-	2
9	Popularization of fodder bank at village level	TANUVAS 2010	Forage crop	-	1	1	-
10	Popularization of new variety in cumbu	TNAU	Cumbu	-	1	-	2
11	Integrated crop management in small onion	TNAU 2004	Small onion	-	1	11	11
12	ICM in chillies	TNAU & IIHR 2004	Chillies	-	1	2	4
13	BPH management in paddy	TNAU	Paddy	-	1	2	13``
14	Popularization of salt lick mineral cake for goats	TANUVAS 2010	Goat	-	1	1	3
15	Management of ranikhet disease	TANUVAS 2008	Poultry	1		1	3
16	Popularization of mini portable sprinkler to mitigate the stress management in rainfed and irrigated crops	TNAU 2010	Sprinkler Unit	-	1	2	-
17	Populariztion of modified coconut climber	TNAU 2009	Coconut climber	-	1	1	3
18	Popularization of Groundnut stripper	CRIDA , Hyderabad	Groundnut stripepr	-	1	2	8
19	Popularization of new incubator among SHG members	TANUVAS	Poultry	-	1	-	1
20	Improved production technology in sesamum	TNAU 2005	Sesamum	-	1	-	4
21	ICM in blackgram	TNAU 2007	Blackgram	-	1	-	3
22	Cotton production technology	TNAU,CICR,NCIPM	Cotton	-	1	9	24
23	Assessment of performance of chilli varieties	TNAU, ARS Guntur 2007	Chilli	1	-	2	7
24	Management of Anestrus in cross breed cows	TANUVAS 2008	Dairy	1	-	2	4
25	Fruit drop management in acidlime	TNAU	Multiplier onion	-	1	5	6
26	Cultivation of multiplier onion through seed	TNAU	Acidlime	-	1	2	5
27	Fodder cowpea	TNAU 2004	Cowpea	-	1	1	-
28	Improving the productivity of goat	TANUVAS 2008	Goat	-	1	1	3
29	Popularization of new variety Beltsvile small white	TANUVAS 2009	Turkey	-	1	-	4
30	Popularization of new variety Rhodowhite	TANUVAS 2010	Desibird	-	1	1	4

3.B2 contd..

Title	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
	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Assessment of planting methods in redgram	5	0	0	0	0	0	0	0	44	0	1	0	0	0	0	0
Water stress management in bittergourd	4	0	1	0	0	0	0	0	69	0	10	0	48	13	10	0
Assessing the performance of brinjal hybrids	6	2	2	0	0	0	0	0	32	3	1	0	36	10	12	0
Weed management in yam through intercropping	2	2	1	0	0	0	0	0	109	23	3	0	25	15	7	0
Assessment of suitable technology for management of false smut in paddy	8	2	0	0	0	0	0	0	41	8	13	1	7	12	5	2
Assessment of suitable variety for value addition	4	0	1	0	0	0	0	0	7	12	1	13	19	35	2	13
Area specific mineral mixture for dairy cows	13	2	0	5	20	10	7	3	20	0	7	3	8	2	6	4
Control of Ranikhet disease by oral pellet vaccine	24	6	15	5	6	4	0	0	7	5	1	5	15	8	6	5
Management of Anestrus in Cross breed cows	8	2	6	4	0	0	0	0	0	0	0	0	0	0	0	0
Popularization of fodder bank at village level	0	0	0	0	4	2	2	2	14	2	2	0	0	0	0	0
Popularization of new variety in cumbu	0	0	0	0	9	0	1	0	9	0	1	0	0	0	0	0
Integrated crop management in small onion	0	0	0	0	16	2	2	0	223	35	25	0	86	22	25	0
ICM in chillies	0	0	0	0	7	1	1	1	35	5	3	0	54	5	9	0
BPH management in paddy	0	0	0	0	8	2	0	0	35	10	3	1	14	3	7	2
Popularization of salt lick mineral cake for goats	0	0	0	0	10	0	0	0	10	3	7	0	16	3	8	3
Management of ranikhet	2	8	5	5	0	0	0	0	18	5	1	0	0	0	0	0
Popularization of mini portable sprinkler to mitigate the stress management in rainfed and irrigated crops	Trial Under Progress															
Populariztion of modified coconut climber	0	0	0	0	76	6	16	2	20	2	2	0	0	0	0	0
Popularization of Groundnut stripper	0	0	0	0	16	0	3	1	24	0	4	0	75	15	5	0

Popularization of new incubator among SHG members	0	0	0	0	0	27	0	23	0	15	0	0	12	0	8	5
Improved production technology in sesamum	0	0	0	0	16	1	2	0	15	1	2	0	0	0	0	0
ICM in blackgram	0	0	0	0	12	0	1	0	12	0	1	0	0	0	0	0
Cotton production technology	0	0	0	0	22	10	5	13	221	22	74	7	320	50	62	8
Assessment of performance of chilli varieties	3	1	1	0	0	0	0	0	34	0	2	0	64	22	13	0
Management of Anestrus in cross breed cows	8	2	6	4	0	0	0	0	38	10	13	12	18	6	7	9
Fruit drop management in acidlime	0	0	0	0	5	2	1	2	31	2	0	0	0	0	0	0
Cultivation of multiplier onion through seed	0	0	0	0	7	0	3	0	23	13	0	0	59	15	0	0
Fodder cowpea	0	0	0	0	11	0	1	0	0	0	0	0	0	0	0	0
Improving the productivity of goat	0	0	0	0	4	2	2	2	4	12	0	11	0	0	0	0
Popularization of new variety Beltsvile small white	0	0	0	0	8	4	4	4	9	0	1	0	9	0	1	0
Popularization of new variety Rhodowhite	0	0	0	0	4	2	2	2	12	0	1	0	12	0	1	0
Preparation of Low cost concentrate feed for Dairy cows.	0	0	0	0	6	0	2	2	0	0	0	0	0	0	0	0

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					Chillies -1 (09-10) Brinjal -1 Tomato-1					3
Integrated Pest Management										
Integrated Crop Management			Redgram -1							1
Integrated Disease Management				Paddy -1						1
Small Scale Income Generation Enterprises										
Weed Management					Yam-1					1
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Drought management					Bittergourd-1					1
Transplanting techniques										
Total										**7**

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

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										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total										

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-
Nutrition Management	1(under progress)	-	-	-	-	1
Disease Management	-	2 (1 Under progress)	-	-	-	2
Value Addition						
Production and Management	1					1
Feed and Fodder						
Small Scale income generating enterprises						
TOTAL	**2**	**2**	**-**	**-**	**-**	**4**

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

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

4.B. Achievements on technologies Assessed and Refined

4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha
Integrated Nutrient Management					
Varietal Evaluation	Brinjal	Assessing the performance of brinjal hybrids	10	10	4
	Chilli	Assessment of performance of chilli varieties(09-10)	5	5	2
	Tomato	Assessment of suitable variety for value addition	5	5	1
Integrated Pest Management					
Integrated Crop Management	Yam	Weed management in yam through intercropping	5	5	2
	Redgram	Assessment of planting methods in redgram	5	5	2
Integrated Disease Management	Paddy	Assessment of suitable technology for management of false smut in paddy	10	10	2
Small Scale Income Generation Enterprises					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Drought management	Bittergourd	Water stress management in bittergourd	5	5	2
Total			**45**	**45**	**15**

4.B.2. Technologies Refined under various Crops - Nil

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

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

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management	Dairy farming	Area specific mineral mixture for dairy cows (under progress)	1	20
Disease management	Poultry	Control of Ranikhet disease in desichicken (under progress)	1	50
		Management of Ranikhet disease in desibirds	1	20
Value addition				
Production and management	Dairy Farming	Management of Post partum Anestrum management in cross breed dairy cows	1	20
Feed and fodder				
Small scale income generating enterprises				
Total			**4**	**110**

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

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

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

1. Assessment of planting method in redgram

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
Redgram	Irrigated	Very poor plant population and intercropping	Assessment of planting method in redgram	5	Seedlings raised in polybags and transplanted Soil test based fertilizer application	Germination percentage	93%	**10.12 q / ha**	1. Transplanting technology is new to our area 2. It enhanced the plant population and yield of the crop 3. It enhanced more no of branches and pods / branch	Instead of polybags, paper cup may be used	High cost and labouries
						Plant population	7407 plants / ha				
						No. of pods / plant	179				
						No. of branches / plant	7				
						Yield kg / ha	1012				

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**
Technology option 1 Conventional method of redgram cultivation	694	kg / ha	13,156.00	2.26
Technology option 2 Seeds dibbling with recommended dose of fertilizer application	820	kg / ha	18,080.00	2.84
Technology option 3 Seeds raised in polybags and transplanted with soil rest based fertilizer application	1012	kg / ha	23,127.00	3.05

2. Assessing the performance of brinjal hybrids

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 refinemer done / needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Brinjal	Irrigated	Detachment of fruits from calyx during rainy season	Assessing the performance of brinjal hybrids	5	Cultivating CoBH2	• No.. of palnts / ha	18020	390.8 q/ha	CoBH2 and Arka Anand performed better. CoBH2 gave higher yield than other hybrids. The market preference is good for CoBH2 in Perambalur and it is not suitable to Thalaivasal market.	-	-
						• No. of fruits / plant	26.46				
						• % of fruit drop	1.84				
						• Yield / plant (kg)	2.17				

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**
Technology option 1 Cultivating private hybrids	30,740	kg / ha	62,222.00	2.03
Technology option 2 Cultivating CoBH2	39,080	kg / ha	95,900.00	2.59
Technology option 3 Cultivating Arka Anand	34,460	kg / ha	77,314.00	2.28

3. Water stress management in bittergourd

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 refinemer done / needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Bittergourd	Irrigated	Insufficient water lead to water stress	Water stress management in bittergourd	10	Spraying of antitranspirant (green miracle 1 ml (lit) 4 times at fortnight interval from 15 days after sowing	• No. of plants / ha	10580	296 q / ha	So far the mulching practice was not carried out for bittergourd by the farmers. Though it is laborious it helped very much in water saving. Since paddy straws used as cattle feed and the demand for it is more farmers hesitate to use paddy straw as mulch material. The antitranspirant applied plants exhibited poor growth when compared to the mulched plants.	-	-
						• No. of female flowers / plant	22.59				
						• No. of fruits / plant	16.67				
						• % of fruit setting	73.79				
						• Yield / plant (kg)	2.80				

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17
Technology option 1 Irrigating the field when water is available (once in 15 day)	23,300.00	Kg / ha	86,770.00	2.26
Technology option 2 Mulching with paddy straw	27,200.00	Kg / ha	1,06,612.00	2.84
Technology option 3 Mulching with coirpith	29,600.00	Kg / ha	1,22,072.00	3.05
Technology option 4 Spraying of antitranspirant (green miracle 1 ml (lit) 4 times at fortnight interval from 15 days after sowing	28,700.00	Kg / ha	1,17,732.00	2.87

4. Assessment of suitable technology for management of false smut in paddy

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
Paddy	Irrigated condition	Incidence of false smut due to non seed treatment	Assessment of suitable technology for management of false smut in paddy	10	• Use of disease free seeds for sowing • Seed treatment with Carbendazim @ 2 g / kg • Foliar spraying of copper hydroxide @ 2.5 g / lit of water one at boot leaf stage and another at milking stage. • Regular monitoring of disease incidence • Avoided the excess dose of nitrogeneous fertilizer	• No. of hills / m^2	33.8	**45.90q/ha**	Due to adopting this technology false smut incidence is drastically decreased and increased yield upto 68.75%	-	-
						• No. of healthy tillers / hill before spray	64.13				
						• No. of healthy tillers / hill after spray	67.82				
						• Infested grains /tillers after spray	0.40				
						• % infestation	2.20				
						• Yield (q/ha)	45.90				
						• B:C ratio	2.46				

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**
Technology Option -1 No seed treatment against the diseases After observing theincidence, the farmers removing of the infected panicles	2720.00 .	Kg / ha	8,625.00	1.71
Technology option – 2 : Foliar spraying of copper oxychloride @ 2.5 g/lit of water and it is reduced the incidence of the diseases.	3525.00	Kg / ha	11,097.00	1.74
Technology option – 3: Use of disease free seeds for sowing Seed treatment with Carbendazim @ 2 g / kg Foliar spraying of copper hydroxide @ 2.5 g / lit of water one at boot leaf stage and another at milking stage. Regular monitoring of disease incidence Avoided the excess dose of nitrogeneous fertilizer	4590.00	Kg / ha	19,535.00	2.46
Technology option 4: Use of disease free seeds for sowing Seed treatment with Carbendazim @ 2 g / kg Foliar spraying of Propiconozole @ 2ml / lit of water at boot leaf stage followed by flowering stage Regular monitoring of disease incidence Avoided the excess dose of nitrogeneous fertilizer	4254.00	Kg / ha	16,851.00	2.22

5. Assessment of suitable variety for value addition in tomato

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
Vegetables (Tomato)	Irrigated	Lack of knowledge in tomato value addition	Assessment of suitable variety for value addition in tomato	5	**Arka Shreshta** Suitable for processing tomato products like tomato paste, sauce and pickle	• Fruit yield / plant • Yield q/ha • Consumer acceptability Paste Sauce Pickle Keeping quality paste • Sauce • Pickle	3.16 Kg 70.7 84% 86% 88% 68 Days 74 Days 89 Days	**72.7 q/ha**	By adopting the value addition technics, market price has been increased to their produce. Besides that using this technology to minimize the post harvest loss and increase the income	-	-

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**
Technology Option 1 Local variety Immediate market	60.2	q/ha	12910	2.1
Technology Option 2 **Roma** Suitable for processing tomato products like paste, sauce and pickle	68.95	q/ha	27880	2.4
Technology Option 3 **Arka Shreshta** Suitable for processing tomato products like tomato paste, sauce and pickle	72.7	q/ha	30880	2.8

6. Weed management in yam through intercropping

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 refinemer done / needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Yam	Irrigated	Heavy weed menace in yam led to reduction in crop growth and ultimately the corm yield	Weed management in yam through intercropping	5	Intercropping with semi spreading groundnut (VRI (Gn) 7) Seed treatment of groundnut with *T. viride* 4.0 g and *Pseudomonas* 10g / kg of seed and *Rhizobium* 600 g / ha	• No. of weedings reduced • Weed biomass reduced (g/m^2) • Yield (kg / plant)	2 78.98 1.14	331.15 Q/ ha	By adopting this technology No. of weeding practices has been reduced from 5 to 2, besides this, we get additional income increased corm yield and return	**No**	**-**

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**
Technology option 1 Cultivating yam as sole crop	303.00	q / ha	2,73,750.00	2.25
Technology option 2 Intercropping with vegetable cowpea (VBN 2 & Co2) Seed treatment of vegetable cowpea with Rhizobium @ 600 g/ha	324.20	q / ha	3,46,750.00	2.82
Technology option 3 Intercropping with semi spreading groundnut (VRI (Gn) 7) Seed treatment of groundnut with *T. viride* 4.0 g and *Pseudomonas* 10g / kg of seed and *Rhizobium* 600 g / ha	331.40	q / ha	3,62,090.00	2.89

7. Management of Anestrum in cross breed cows

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 refinemer done / needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Dairy cattle	Semi – intensive	Majority of the animal does not exhibit estrus signs / low conception rate leading to long intercalving period	Management of Anestrum in cross breed cows	25 Animals	Deworming supplementation of vitamins and minerals for Anestrus management	• % of onset of estrus signs • Number of AI required to conception	95 1.5	95%	By using Fenbendazole for deworming it will increase the over all production of animal by effectively elementing internal worms and helps to attain faster weight gains and supplementation of vitamins and mineral mixture helps us to proper development of reproductive organs and again shows periodical estrus signs and conceived with one (or) two AI. This helps to decrease the production cost and increase the milk yield	-	-

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17
Technology option 1 Rearing of dairy cows with locally available feed materials like green roughages, paddy straw & rice bran	Milk yield – 8	lit/cow/day	1800	1.60
Technology option 2 Sus.Fenbendazole2.5 w/v(1ml/3kg body weight +Vitamins & minerals supplementation 50 gm/day for a period of 3 months)	Milk yield – 10.5	lit/cow/day	3300	2.10
Technology option 3 Sus.Fenbendazole2.5 w/v(1ml/3kg body weight + Supplementation of vitamins and mineral mixture @50g/day for a period of 3 months + Prajana 3 capsules / day for 2 days repeat on 11^{th} and 12^{th} day	Milk yield -13.5	lit/cow/day	5100	2.70

8. Assessing the performance of chilli varieties

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
Chilli	Irrigated	Poor performance due to repeated use of same cultivar	Assessing the performance of chilli varieties	5	Cultivation of G4 (Bhagya lakshmi) chilli variety along with component technologies	• Fruit set % • Green fruit yield (kg / plant)	76.3 0.871	24.7 q/ha	Both G4 and KKM1 varieties performed better KKM1 is suitable for green chillies G4 is suitable for dry chillies	-	-

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**
Technology option 1 Cultivating local cultivar	1,860.00	Kg / ha	39,975.00	2.16
Technology option 2 Cultivating KKM-1	2,260.00	Kg / ha	54,611.00	2.53
Technology option 3 Cultivating G4 (Bhagya lakshmi)	2,420.00	Kg / ha	60,861.00	2.69

8. Management of Ranikhet disease in desibirds

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
Poultry	Free range	The outbreak of Ranikhet disease leads in higher mortality (upto 100%) in desibirds. It also severely affects the egg production rate / size of the egg.	Management of Ranikhet disease in desibirds		Lasota (or) F1 vaccine R 2 B Vaccine - 6th Week R DVK Vaccine – 16th week	• Body weight gain / bird (kg / bird) • Mortality percentage	2.18 5%	2.18 5%	Low incidence of Ranikhet disease. No Mortality among birds Faster weight gain Better return / high profit.	**Yes**	The vaccination of desibird by parentral route is very tedious one and also the farmers are solely depend on paraveterinary staff for their birds getting vaccination. Moreover the handling of transport of this vaccines are difficult. So if we get alternate vaccinations other than parental administration the farmers themselves can administer their vaccines. (if it is in the form of pellet or Tablet.

Contd..

Technology Assessed	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	**14**	**15**	**16**	**17**
Technology option 1 Spray of Water mixed with turmeric powder	1.14	Kg / bird	128	2.28
Technology option 2 Lasota (or) F1 vaccine - 7th day R 2 B Vaccine - 6th Week R DVK Vaccine – 16th week	2.18	Kg / bird	310	3.63

On Farm Testing

<table>
<tr><th>Sl. No.</th><th>Contents</th><th>Details</th></tr>
<tr><td>1</td><td>Title of Technology Assessed</td><td>Assessment of planting method in redgram</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>Cultivating redgram as an intercrop and maintained very poor plant population</td></tr>
<tr><td rowspan="3">3</td><td rowspan="3">Details of technologies selected for assessment/refinement</td><td>Technology option 1
Conventional method of redgram cultivation</td></tr>
<tr><td>Technology option 2
Seeds dibbling with recommended dose of fertilizer application</td></tr>
<tr><td>Technology option 3
Seeds raised in polybags and transplanted with soil test based fertilizer application</td></tr>
<tr><td>4</td><td>Source of technology</td><td>UAS Dharwad, 2009-2010</td></tr>
<tr><td>5</td><td>Production system and thematic area</td><td>Groundnut + Redgram (or) cotton + Redgram intercropping
Purecrop with transplanting technique</td></tr>
<tr><td>6</td><td>Performance of the technology with performance indicators</td><td>Germination percentage – 93%
Plant population - 7407 plants / ha
No. of pods / plant - 179
No. of branches / plant - 7
Yield kg / ha - 1012</td></tr>
<tr><td>7</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>

Transplanting technology is new to our area
It enhanced the plant population and yield of the crop
It enhanced more no of branches and pods / branch

<table>
<tr><th>Technology parameters</th><th>Technology option 1</th><th>Technology option 2</th><th>Technology option 3</th></tr>
<tr><td>• Germination Percentage</td><td>***</td><td>****</td><td>****</td></tr>
<tr><td>• Plant population</td><td>**</td><td>***</td><td>*****</td></tr>
<tr><td>• No.of pods/plant</td><td>**</td><td>***</td><td>*****</td></tr>
<tr><td>• No. of branches / plant</td><td>*</td><td>**</td><td>****</td></tr>
<tr><td>• Yield Kg/ha</td><td>**</td><td>***</td><td>****</td></tr>
<tr><td>Total</td><td>10</td><td>15</td><td>22</td></tr>
</table>
*poor ** moderate *** good **** verygood ***** Excellent
</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td>Seedlings raised in polybags and transplanted with soil test based fertilizer application</td></tr>
<tr><td>9</td><td>Constraints identified and feedback for research</td><td>Polybag and protray nursery preparation was labouries and cost expensive</td></tr>
<tr><td>10</td><td>Process of farmers participation and their reaction</td><td>Preknoweldge and group meeting, demonstration, training and field day. This is the first time the farmers known about the transplanting method and its improved production technologies</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Contents</th><th>Details</th></tr>
<tr><td>1</td><td>Title of Technology Assessed</td><td>Assessing the performace of chili varieties</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>Reduced yield due to repeated use of same cultivar. It led to depletion of soil nutrition and occurrence of more pest and diseases. The genetic purity of the seed also reduced drastically owing to the farmers are getting seed material from their own crop.</td></tr>
<tr><td rowspan="3">3</td><td rowspan="3">Details of technologies selected for assessment/refinement</td><td>Technology option 1
Cultivation of local cultivar</td></tr>
<tr><td>Technology option 2
Cultivation of KKM-1</td></tr>
<tr><td>Technology option 3
Cultivation of G4 variety</td></tr>
<tr><td>4</td><td>Source of technology</td><td>TNAU, Coimbatore – 2006
Regional Agricultural Research station, Guntur - 1968</td></tr>
<tr><td>5</td><td>Production system and thematic area</td><td>Vegetable based production system under irrigated condition
Varietal assessment</td></tr>
<tr><td>6</td><td>Performance of the technology with performance indicators</td><td>• Fruit set %
• Green fruit yield (kg / plant)</td></tr>
<tr><td>7</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>Both KKM-1 and G4 performed better than the local cultivar. KKM-1 variety is very much suitable for marketing as green chilli. G4 variety yield was higher than other 2 varieties and suitable for marketing as dry chilli.
<table>
<tr><th>Technology parameters</th><th>Technology option 1</th><th>Technology option 2</th><th>Technology option 3</th></tr>
<tr><td>Fruit set %</td><td>**</td><td>***</td><td>****</td></tr>
<tr><td>Green fruit yield (kg / plant)</td><td>**</td><td>***</td><td>****</td></tr>
<tr><td>Total</td><td>4</td><td>6</td><td>8</td></tr>
</table>
*poor ** moderate *** good **** verygood ***** Excellent</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td>Since both the varieties viz., KKM1 and G4 performed better than the local cultivar both can be recommended for cultivation in Perambalur district. KKM-1 variety is suitable for green chilli market and G4 is suitable for dry chilli market.</td></tr>
<tr><td>9</td><td>Constraints identified and feedback for research</td><td>Nil</td></tr>
<tr><td>10</td><td>Process of farmers participation and their reaction</td><td>The trial has been proposed based on the PRA. Five farmers have been selected by conducting group meeting. Demonstrations and trainings have been conducted in the village. Recommendations were given by undergoing field visits. Field day was conducted during harvesting stage and the advantageous characters of these varieties were discussed in field day.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Contents</th><th>Details</th></tr>
<tr><td>1</td><td>Title of Technology Assessed</td><td>Assessing the performance of brinjal hybrids</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>Detachment of fruits from calyx during rainy season</td></tr>
<tr><td rowspan="3">3</td><td rowspan="3">Details of technologies selected for assessment/refinement</td><td>Technology option 1
Cultivating private hybrids</td></tr>
<tr><td>Technology option 2
Cultivating CoBH2</td></tr>
<tr><td>Technology option 3
Cultivating Arka Anand</td></tr>
<tr><td>4</td><td>Source of technology</td><td>TNAU, Coimbatore (2008)
IIHR, Bangalore (2008)</td></tr>
<tr><td>5</td><td>Production system and thematic area</td><td>Vegetable based production system under irrigated condition, Varietal assessment</td></tr>
<tr><td>6</td><td>Performance of the technology with performance indicators</td><td>• No.. of palnts / ha 18020
• No. of fruits / plant 26.46
• % of fruit drop 1.84
• Yield / plant (kg) 2.17</td></tr>
<tr><td>7</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>CoBH2 and Arka Anand performed better. CoBH2 comparatively give higher yield than other hybrids. The market preference is good for CoBH2 in Perambalur and it is not suitable to Thalaivasal market.
<table>
<tr><th>Technology parameters</th><th>Technology option 1</th><th>Technology option 2</th><th>Technology option 3</th></tr>
<tr><td>• No.. of palnts / ha</td><td>***</td><td>***</td><td>***</td></tr>
<tr><td>• No. of fruits / plant</td><td>***</td><td>****</td><td>***</td></tr>
<tr><td>• Reduction of fruit drop</td><td>*</td><td>****</td><td>****</td></tr>
<tr><td>• Yield / plant (kg)</td><td>**</td><td>****</td><td>****</td></tr>
<tr><td>Total</td><td>9</td><td>15</td><td>14</td></tr>
</table>
*poor ** moderate *** good **** verygood ***** Excellent</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td>CoBH2 can be recommended for cultivating during Rabi season in Perambalur district</td></tr>
<tr><td>9</td><td>Constraints identified and feedback for research</td><td>Incidence of shoot and fruit borer was severe during cropping period. Frequent application of pesticides have been practiced. Hence, shoot and fruit borer resistant variety may be developed.</td></tr>
<tr><td>10</td><td>Process of farmers participation and their reaction</td><td>Based on PRA, the problem has been identified and proposed for OFT. Ten interested farmers have been selected by conducting group meeting. Demonstration and trainings have been conducted in the village itself. Advisory services also been given by visiting the fields. Finally field day was conducted with the village farmers. The trial farmers have given the feedback about the hybrids in field day.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Contents</th><th>Details</th></tr>
<tr><td>1</td><td>Title of Technology Assessed</td><td>Water stress management in bittergourd</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>Due to failure or uneven rainfall the bittergourd crop grown during kharif season faces drought to some extent.</td></tr>
<tr><td rowspan="4">3’</td><td rowspan="4">Details of technologies selected for assessment/refinement</td><td>Technology option 1
Irrigating the field when water is available (once in 15 day)</td></tr>
<tr><td>Technology option 2
Mulching with paddy straw</td></tr>
<tr><td>Technology option 3
Mulching with coirpith</td></tr>
<tr><td>Technology option 4
Spraying of antitranspirant (green miracle 1 ml (lit) 4 times at fortnight interval from 15 days after sowing</td></tr>
<tr><td>4</td><td>Source of technology</td><td>TNAU, Coimbatore (2006)</td></tr>
<tr><td>5</td><td>Production system and thematic area</td><td>Vegetable based production system under irrigated condition</td></tr>
<tr><td>6</td><td>Performance of the technology with performance indicators</td><td>• No. of plants / ha 10,580
• No. of female flowers / plant 22.59
• No. of fruits / plant 16.67
• % of fruit setting 73.79
• Yield / plant (kg) 2.80</td></tr>
<tr><td>7</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>So far the mulching practice was not carried out for bittergourd by the farmers. Though it is labourious it helped very much in water saving. Since paddy straw is used as cattle feed and the demand for it is more the farmers hesitate to use paddystraw as mulch material. The anti-transpirant applied plants exhibited poor growth when compared to the mulched plants.
<table>
<tr><th>Technology parameters</th><th>Technology option 1</th><th>Technology option 2</th><th>Technology option 3</th><th>Technology option 4</th></tr>
<tr><td>• No.. of plants / ha</td><td>***</td><td>****</td><td>****</td><td>****</td></tr>
<tr><td>• No. of female flowers / plant</td><td>**</td><td>***</td><td>****</td><td>***</td></tr>
<tr><td>• No. of fruits / plant</td><td>**</td><td>***</td><td>****</td><td>***</td></tr>
<tr><td>• % of fruit setting</td><td>***</td><td>****</td><td>****</td><td>****</td></tr>
<tr><td>• Yield / plant (kg)</td><td>**</td><td>***</td><td>****</td><td>****</td></tr>
<tr><td>Total</td><td>12</td><td>17</td><td>20</td><td>18</td></tr>
</table>
*poor ** moderate *** good **** verygood ***** Excellent</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td>To overcome the drought situation in bittergourd the pits can be mulched with coirpith after the seedlings are emerged.</td></tr>
<tr><td>9</td><td>Constraints identified and feedback for research</td><td>Since the coirpith is not locally available it has to be purchased from outside. The composting technique of coconut husks may be popularized. It will help the farmers to prepare the mulch material from their</td></tr>
</table>

		house itself
10	**Process of farmers participation and their reaction**	Based on PRA the problem has been identified and proposed for OFT. Five farmers have been selected by conducting group meeting. Demonstration on mulching and antitranspirants application have been shown to the farmers. Trainings were conducted and advices were given during field visit. The field day was conducted with village farmers then the trial farmers given their feedback to the other farmers.

Sl. No.	Contents	Details
1	**Title of Technology Assessed**	Assessment of suitable technology for management of false smut in paddy
2	**Problem Definition**	False smut caused by fungus. It is a air borne diseases and also known as lakshmi disease of rice. The fungus transforms individual grains of the panicle into greenish spore balls of a velvety appearance. They are slightly flattened smooth and yellow are covered by membrane. Usually only a few grains in a panicle infected. But this year several gains were infected. At severe infection, most of the grain in the panicles are affected by the disease .The disease not only reduce the yield, But also affected the quality of grain or feed.
3	**Details of technologies selected for assessment/refinement**	**Technology option – 1** No seed treatment against the diseases After observing the incidence, the farmers removing of the infected panicles
		Technology option – 2 : Foliar spraying of copper oxychloride @ 2.5 g/lit of water.
		Technology option – 3: Use of disease free seeds for sowing Seed treatment with Carbendazim @ 2 g / kg Foliar spraying of copper hydroxide @ 2.5 g / lit of water one at boot leaf stage and another at milking stage. Regular monitoring of disease incidence Avoid excess dose of nitrogeneous fertilizer
		Technology option 4: Use of disease free seeds for sowing Seed treatment with Carbendazim @ 2 g / kg Foliar spraying of Propiconozole @ 2ml / lit of water at boot leaf stage followed by flowering stage Regular monitoring of disease incidence Avoid excess dose of nitrogeneous fertilizer
4	**Source of technology**	TNAU 2009
5	**Production system and thematic area**	Cereal based cropping system (paddy – paddy-pulses –paddy-paddy-Gingelly) Integrated Disease Management
6	**Performance of the technology with performance indicators**	• No. of hills / m^2 **33.8** • No. of healthy tillers / hill before spray **64.13** • No. of healthy tillers / hill after spray **67.82** • Infested grains /tillers after spray **0.40** • % infestation **2.20**

<table>
<tr><td></td><td></td><td>

Yield (q/ha) 45.90
B:C ratio 2.46

</td></tr>
<tr><td>7</td><td>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</td><td>
The OFT was conducted at Poolambadi village. The seed were treated with carbendezim @2 gm / lit of seed and foliar spraying of copper hydroxide @ 2.5 g/lit of water one at boot leaf stage and another at milking stage. So the disease was fully controlled because of the copper have preventive and antisporulating mode of action in the plant parts. This was found most effectively against the false smut incidence as compare to others..
<table>
<tr><th>Technology parameters</th><th>Technology option 1</th><th>Technology option 2</th><th>Technology option 3</th><th>Technology option 4</th></tr>
<tr><td>• No. of hills / m^2</td><td>*</td><td>*</td><td>*</td><td>*</td></tr>
<tr><td>• No. of healthy tillers / hill before spray</td><td>*</td><td>**</td><td>****</td><td>***</td></tr>
<tr><td>• No. of healthy tillers / hill after spray</td><td>*</td><td>**</td><td>****</td><td>***</td></tr>
<tr><td>• Infested grains /tillers after spray</td><td>*</td><td>**</td><td>*****</td><td>****</td></tr>
<tr><td>• % infestation</td><td>*</td><td>**</td><td>*****</td><td>****</td></tr>
<tr><td>• Yield (q/ha)</td><td>*</td><td>**</td><td>****</td><td>***</td></tr>
<tr><td>• B:C ratio</td><td>*</td><td>*</td><td>***</td><td>**</td></tr>
<tr><td>Total</td><td>7</td><td>12</td><td>25</td><td>20</td></tr>
</table>
*poor ** moderate *** good **** verygood ***** Excellent
</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td>
❖ Use of disease free seeds for sowing
❖ Seed treatment with Carbendazim @ 2 g / kg
❖ Foliar spraying of copper hydroxide @ 2.5 g / lit of water one at boot leaf stage and another at milking stage.
❖ Regular monitoring of disease incidence
❖ Avoid excess dose of nitrogeneous fertilizer
</td></tr>
<tr><td>9</td><td>Constraints identified and feedback for research</td><td>
Minor disease became a major disease due to climate change
Farmers were unaware about identification of this diseases and mode of spread
Non availability of new chemicals and bioagents in time
Storage of seeds not in proper
Researchers need to develop disease resistant cultivars
</td></tr>
<tr><td>10</td><td>Process of farmers participation and their reaction</td><td>Layout of OFT through group meeting, village survey, demonstration, convention, training, collaboration with line departments, field day and media coverage etc. The trials were visited frequently and the farmers were technically advised. The farmers were adopted what we have suggested then and there.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Contents</th><th>Details</th></tr>
<tr><td>1</td><td>Title of Technology Assessed</td><td>Weed management in yam through intercropping</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>Heavy weed menace in yam lead to reduction in crop growth and ultimately the corm yield</td></tr>
<tr><td rowspan="3">3</td><td rowspan="3">Details of technologies selected for assessment/refinement</td><td>Technology option 1
Cultivating yam as sole crop</td></tr>
<tr><td>Technology option 2
Intercropping with vegetable cowpea (VBN 2 & Co2)
Seed treatment of vegetable cowpea with Rhizobium @ 600 g/ha</td></tr>
<tr><td>Technology option 3
Intercropping with semi spreading groundnut (VRI (Gn) 7)
Seed treatment of groundnut with T. viride 4.0 g and Pseudomonas 10g / kg of seed and Rhizobium 600 g / ha</td></tr>
<tr><td>4</td><td>Source of technology</td><td>Technology option 1 = TNAU 2009
Technology option 2 = AVRDC - 2009</td></tr>
<tr><td>5</td><td>Production system and thematic area</td><td>Vegetable based production system under irrigated condition
Weed management</td></tr>
<tr><td>6</td><td>Performance of the technology with performance indicators</td><td>
<table>
<tr><td>• No. of weedings</td><td>2</td></tr>
<tr><td>• Weed biomass (g/m^2)</td><td>78.98</td></tr>
<tr><td>• Yield (kg / plant)</td><td>1.14</td></tr>
</table>
</td></tr>
<tr><td>7</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>
<table>
<tr><th>Technology parameters</th><th>Technology option 1</th><th>Technology option 2</th><th>Technology option 3</th></tr>
<tr><td>• No. of weedings reduced</td><td>*</td><td>***</td><td>****</td></tr>
<tr><td>• Weed biomass reduced (g/m^2)</td><td>*</td><td>***</td><td>****</td></tr>
<tr><td>• Yield (kg / plant)</td><td>**</td><td>***</td><td>****</td></tr>
<tr><td></td><td>4</td><td>9</td><td>12</td></tr>
</table>
*poor ** moderate *** good **** verygood ***** Excellent
</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td>Farmers were having poor awareness about intercropping among yam crop. They were afraid that intercropping will affect their yam yield. So popularization of this technology should be done to maintain additional income and soil fertility by managing the weed growth.</td></tr>
<tr><td>9</td><td>Constraints identified and feedback for research</td><td>In sithali village, yam is the major crop in that weed menace is the major problem. This has been identified during the PRA programme in that village. An OFT has been formulated to manage the problem of weed by weed management in year through intercropping. Five farmers have been selected based on the interest in group meeting. They have been traced about the intercropping practice and package of practices in yam. This intercropping practice has been reduced the weeding practice from 5 weedings to 2 weedings, besides increase the income of soil fertility status fixing nitrogen in nodules.</td></tr>
<tr><td>10</td><td>Process of farmers participation and their reaction</td><td>Farmers participation and involvement in adopting the technology is very good. They felt that this technology should be done to improve the income status of the farmer.</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Contents</th><th>Details</th></tr>
<tr><td>1</td><td>Title of Technology Assessed</td><td>Assessment of suitable variety for value addition in tomato</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>Lack Technical knowledge in value addition</td></tr>
<tr><td rowspan="3">3</td><td rowspan="3">Details of technologies selected for assessment/refinement</td><td>Local variety
Immediate market</td></tr>
<tr><td>Roma
Suitable for processing tomato products like paste, sauce and pickle</td></tr>
<tr><td>Arka Shreshta
Suitable for processing tomato products like tomato paste, sauce and pickle</td></tr>
<tr><td>4</td><td>Source of technology</td><td>IHR, Bangalore</td></tr>
<tr><td>5</td><td>Production system and thematic area</td><td>Vegetable based production system under irrigated condition
Value addition</td></tr>
<tr><td>6</td><td>Performance of the technology with performance indicators</td><td>• Fruit yield / plant 3.16
• Yield q/ha 72.7
• Consumer acceptability
Paste 84%
Sauce 86%
Pickle 88%
• Keeping quality paste 69 days
• Sauce 74 days
• Pickle 89 days</td></tr>
<tr><td>7</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>Though the process of value addition technic is very simple. During price fluctuation it may help to increase the market value of their produce.
<table>
<tr><th>Technology parameters</th><th>Technology option 1</th><th>Technology option 2</th><th>Technology option 3</th></tr>
<tr><td>Fruit yield / plant</td><td>**</td><td>*</td><td>***</td></tr>
<tr><td>Yield q/ha</td><td>*</td><td>**</td><td>***</td></tr>
<tr><td>Consumer acceptability</td><td></td><td></td><td></td></tr>
<tr><td>Paste</td><td>*</td><td>**</td><td>***</td></tr>
<tr><td>Sauce</td><td>*</td><td>**</td><td>***</td></tr>
<tr><td>Pickle</td><td>*</td><td>**</td><td>***</td></tr>
<tr><td>Keeping quality paste</td><td>*</td><td>**</td><td>***</td></tr>
<tr><td>Sauce</td><td>*</td><td>**</td><td>***</td></tr>
<tr><td>Pickle</td><td>*</td><td>**</td><td>***</td></tr>
<tr><td></td><td>9</td><td>15</td><td>24</td></tr>
</table>
*poor ** moderate *** good **** verygood ***** Excellent</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td>The farmers having lack knowledge in value addition techniques in tomato. They were afraid that the price of the commodity might be reduced due to improper handling. So popularization of this</td></tr>
</table>

		technology should be done to maintain additional income and awareness about use of value added products.
9	**Constraints identified and feedback for research**	NIL
10	**Process of farmers participation and their reaction**	Farmers participation and involvement in adopting the technology is very good. They felt that this technology should be done to improve the income status of the farmer.

Sl. No.	Contents	Details
1	**Title of Technology Assessed**	Management of Ranikhet disease in desibirds
2	**Problem Definition**	Ranikhet disease caused by new castle. Disease virus (NDV) belonging to the genus paranyxo virdae. It is one of the devasting disease of the poultry causing more economic loss to the farmers by lowering egg production and high mortality.
3	**Details of technologies selected for assessment/refinement**	**Technology option 1** Spray of water mixed with turmeric powder **Technology option 2** Killed and live vaccine administered through parentral root. Lasota (or) F1 vaccine - 7th day R 2 B Vaccine - 6th Week R DVK Vaccine – 16th week
4	**Source of technology**	**TANUVAS**
5	**Production system and thematic area**	Backyard system of rearing and disease management
6	**Performance of the technology with performance indicators**	• Body weight gain (kg / bird) 2.18 • Mortality % 5
7	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques**	Farmers opined the use of killed and live vaccine drastically reduced the outbreak of Ranikhet disease among their birds. Moreover the birds attained faster weight gain in a shorter period of time. This helps to the farmer get more profit from the birds.

S.No.	Parameter	Technology Option - 1	Technology Option - 2
1.	Body weight gain (Kgs.)	*	***
2.	Mortality (%)	*	***
3	No.of eggs laying	*	***
Total		**3**	**12** More suitable Technology option

*poor *** Excellent

8	**Final recommendation for micro level situation**	Vaccinate the desibird with Lasota vaccine intranasal or intraocular and RDVK vaccine to be given on 16th week
9	**Constraints identified and feedback for research**	The farmers were unaware about the importance of vaccination for Ranikhet disease in desibird farming.The vaccines are not easily available they have to travel long distances for the purchase of

		vaccines. Moreover the farmers are solely depend on paraveterinary staff for vaccination of their birds. So the vaccines to be made available everywhere and easy to administer handle and storage.
10	**Process of farmers participation and their reaction**	All the desibird farmers are essential to know the importance of vaccination in desibird in order to avoid the major economic loss to the farmers. The farmers in Kurumbalur faced the problem of frequent & sudden outbreak of ranikhet disease leads heavy mortality among the desi birds. Moreover, the farmers were unaware the importance of vaccination and vaccination schedules. To overcome their problems on farm trail was conducted in this village and fifteen farmers had been selected by group meeting based on their interest and trial has been conducted in this birds. The birds were vaccinates with Lasota & RDVK vaccine. The farmers were educated about the importance of vaccination in desibird for augment the production performance by training and demonstrations. After seeing the increased bodyweight and development of high resistance against Ranikhet disease the farmers expressed happiness about the performance of parentral route vaccines. The farmers were also taught the method of vaccination & schedules of vaccination in desibird rearing.

Sl. No.	Contents	Details
1	**Title of Technology Assessed**	Management of Anestrus in cross breed cows
2	**Problem Definition**	Anestrum is a major symptom of many conditions affecting the course of the normal estrus cycle in bovines. The anestrum condition is mainly due to insufficient output (or) imbalance of FSH and LH. Anestrus is the major problem of infertility prevalent in rural cattle causing heavy economic loss to livestock farmers due to resultant prolonged barrenness and cessation of milk production.
3	**Details of technologies selected for assessment/refinement**	**Technology option 1** No treatment for anestrum
		Technology option 2 Susp. Fenbendazole 2.5 w/v (1ml / 3 kg body weight) Vitamins and minerals supplementation 50 g / day for a period of 3 months
		Technology option 3 Susp. Fenbendazole 2.5 w/v (1ml / 3 kg body weight) Vitamins and minerals supplementation 50 g / day for a period of 3 months Prajana capsules for two days repeated on 11th and 12th day
4	**Source of technology**	**TANUVAS**
5	**Production system and thematic area**	Semi-intensive, breeding and Feeding management
6	**Performance of the technology with performance indicators**	% of onset of estrus signs - 95 Number of AI required to conception – 1.5
7	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques**	❖ The onset of estrus signs in dairy cattle is high. The number of artificial insemination required for conception animal has been reduced marginally. ❖ More no.of animals become pregnant

Matrix scoring

S.No.	Parameter	Technology Option - I	Technology Option -II	Technology Option - III
1.	**Onset of Estrus**	*	**	***
2.	**No.of AI required for conception**	-	**	***

		3 | No.of animal positive for pregnant | - | ** | *** **Total** | | **1** | **6** | **9** *Poor ** Good *** Excellent
8	**Final recommendation for micro level situation**	Deworming with Fenbendazole 1 ml / 3 kg body weight of 6 month interval and supplementation of vitamins and mineral 30-35 g / cow for a period of 3 months and administration of projana capsules daily to two days and repeated on 11^{th} and 12^{th} day.
9	**Constraints identified and feedback for research**	The farmers were known little about the importance of minerals and vitamins supplementation in the daily diet of dairy cows. Moreoever they never treated the animal for the problem of anestrus. Administration of projana capsules in addition to minerals in the diet of cows leads to reduce the incidence of anestrus and prolonged calving interval.
10	**Process of farmers participation and their reaction**	All the dairy farmers who are involving dairy farming essential to know importance of deworming and supplementation of minerals and vitamins for better reproductive efficiently and sustainability of milk production. Farmers were unknown about the importance of anestrus problem in dairy cattle. To overcome the problem and create awareness about the importance of vitamins and mineral supplementation. OFT has been formulated for Pudhuviralipatti village. Twenty farmers have been selected based on their interest and trial has been conducted in their cows. The farmers were educated about the importance of deworming and supplementation of vitamins and minerals and capsule projana regularly for optimum reproductive and milk production by conducting training and demonstration. After seeing the performance of the animals showing estrus signs without delays increased conception rate and milk yield the farmers felt that the importance of minerals and vitamins and deworming during the field day.

4.D1. Results of Technologies Refined

Results of On Farm Trial

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

Contd..

Technology Refined	Source of Technology for Technology Option1 / Justification for modification of assessed Technology Option 1	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13		14	15	16	17
Technology Option 1 (best performing Technology Option in assessment)					
Technology Option 2 (Modification over Technology Option 1)					
Technology Option 3 (Another Modification over Technology Option 1)					

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

1. Title of Technology refined
2 Problem Definition
3 Details of technologies selected for refinement
4 Source of technology
5 Production system and thematic area
6 Performance of the Technology with performance indicators
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques
8 Final recommendation for micro level situation
9 Constraints identified and feedback for research
10 Process of farmers participation and their reaction

PART V - FRONTLINE DEMONSTRATIONS

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

Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
								Proposed	Actual	SC/ST	Others	Total	
Oilseeds													
Sesamum	Irrigated	Rabi 2011	Sesamum	VRI(Sv)2	-	ICM	Seed VRI (SV) 2 Treat the seed with *Psedomonas fluorescense* TDK 1@ 10 g /kg Seed and soil application of Azospirillum & Phosphobacteria STL based fertilizer application Application of $MnSO_4$ as basal Foliar spray of $MnSo_4$ 0.3% & $ZnSO_4$ 0.5% @ 30 & 50 DAS @ 3 & 5 kg respectively / ha00000000 Foliar spraying of Chloripyriphos@ 2ml/lit of water during pest incidence Soil application of neem cake – 100Kg/ha	5	5	2	16	18	Trial under progress (Date of sowing – First fortnight of February 2011)
Pulses													
Blackgram	Irrigated	Rabi 2011	Blackgram	VBN(5)	-	ICM	New variety VBN(Bg)5 Seed and soil application of biofertilzer and bioagents Soil test based nutrient application Basal application of $ZnSO_4$ Foliar spraying of pulse wonder @ 6.25 kg / ha at peak flowering stage Urea 1% at flowering and another at 15 days interval Growth regulator NAA 4.5 ml @ 10 lit of water and salicylic acid 100 mg / lit during flower initiation and pod formation	5	5	1	12	13	Trial under progress (Date of sowing – First fortnight of February 2011)
Fodder cowpea	Irrigated	Rabi 2011	Cowpea	Co(FC)8	-	ICM	New improved variety with package of practice	5	5	1	11	12	-
Cereals													
Paddy	Irrigated	Rabi 2010	Paddy	ADT-45	-	IPM	Seed treatment with bioagents Adopt the spacing 20 x 20 m followed by not spraying of any insecticide if the BPH below ETL Maintenance of water level Application of low dose of nitrogeneous fertilizer	5	5	0	10	10	-
Millets													
Cumbu	Irrigated	Rabi 2010	Cumbu	Co(Cu)9	-	ICM	- Co(cu) 9 seed - Seed and soil application of biofertilizers. - Soil test based nutrient application. - Micronutrient Management - Seed hardening with KCl 2% - Foliar spraying of metalaxyl @ 2g/lit of water 2 times	4	4	1	9	10	Trial under progress (Date of sowing – First fortnight of March 2011)

Vegetables													
Chillies	Irrigated	Rabi 2010	Chillies	KKM 1	-	ICM	Seed treatment with *T.virde* 4g/kg of seed and *Pseudomonas* 10g/kg of seed Soil application of *Pseudomonas fluorescens* @ 2.5 kg Soil application of 2 kg each of *Azospirillum* and *Phosphobacteria*/ha as basal Application of micronutrients 7 kg/ha as basal Soil test based fertilizer application Spraying of triacantanol 1.25 ppm on 20, 40, 60 and 80th DAP Spraying of planofix 10 ppm on 60 and 90 DAP Spraying of propargite 2 ml/lit at the time of sucking pest incidence (twice with 7 days interval)	2	2	2	8	10	-
Multiplier onion	Irrigated	Rabi 2010	Multiplier onion	Co(on)5	-	ICM	Seed treatment with Azospirillum @ 200 g / kg Application of VAM @ 1 kg / sq.m of nursery	5	5	0	10	10	
Small onion	Irrigated	Rabi 2010	Small onion	Co-4		ICM	Bulb treatment with *T.viride* @4g/kg of bulb & *Pseudomonas* @ 10g/kg of bulb. Soil application of *Azospirillum* @ 2 Kg/ha, *Phospobactreia* 2 kg/ha T.Viride 2.5kg/ha and VAM 12.5Kg/ha Soil application of MN mixture @ 6.25 Kg/ha. Basal application of $ZnSO_4$ @ 25Kg/ha. Spraying of Novaluron @ 1ml/lit during pest incidence Spraying of Chlorothalonil @ 1g / lit 2 times	4	4	2	18	20	
Flowers													
Ornamental													
Fruit													
Acidlime	Irrigated	Rabi 2010	Acidlime	PKM-1		ICM	Spraying of 0.1% Brassinolides + Foliar spraying of $ZnSO_4$ (0.5%), $MnSO_4$(0.5%) and Urea (0.1%) 2times	5	5	4	6	10	
Spices and condiments													
Commercial													
Medicinal and aromatic													
Plantation													

Fibre													
Poultry													
Turkey	Free range	Rabi 2010	Turkey	-	Beltsvile small white	Popularization of new breed	Popularization of new breed turkey – Beltsville small white	200 birds	200 birds(20 F)	8	12	20	
Poultry	Free range	Rabi 2010	Desibird	-	Rhodo white	Popularization of new breed	Popularization of new breed poultry – Rhodo white	200 birds	200 birds (10 F)	4	6	10	
Sheep and goat													
Goat	Semi – intensive	Rabi 2010	-	-	-	Nutrition management	Deworming, Supplementation of vitamins and minerals	150 goats	150 goats	4	6	10	
Goat	Semi-intensive	Rabi 2010	-	-	-	Nutrient management	Popularization of salt lick cake	100	100	0	10	10	
Fodder	Irrigated	Rabi 2010	Fodder	-	-	Nutrient management	Popularization of fodder bank at village level	1	1	4	6	10	
Duckery													
Common carps													
Mussels													
Ornamental fishes													
Oyster mushroom													
Button mushroom													
Vermicompost													
Sericulture													
Apiculture													
Implements													
Groundnut stripper	Irrigated	Kharif 2010	Groundnut	VRI(Gn)7	-	Drudgery reduction	Separating the groundnut pods by using groundnut stripper	10	10	4	16	20	
Sprinkler	Irrigated	Rabi – 2011	Groundnut, maize and onion	-	-	Micro irrigation	Popularization of mini portable sprinkler to mitigate the stress management in rainfed and irrigated crops	1 unit	1 unit	(38 farmers)			
Coconut climber	Irrigated	Round the year	Coconut	-	-	Drudgery reduction	Popularization of coconut climber	1 unit	1 unit	18	82	100	
Incubator	Backyard	Round the year	Poultry	-	-	Hatchery management	Popularization of incubator among SHG members	1 unit	1 unit	23	27	50	
Feed mixing unit	Semi-intensive	Round the year	Dairy	-	-	Nutrient management	Preparation of low cost concentrated feed	20	20	4	6	10	Nil

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

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
Oilseeds													
1	Sesamum	Irrigated	Rabi 2011	Sesamum	VRI(Sv)2	-	ICM	Seed VRI (SV) 2 Treat the seed with *Psedomonas fluorescense* TDK 1@ 10 g /kg Seed and soil application of Azospirillum & Phosphobacteria STL based fertilizer application Application of $MnSO_4$ as basal Foliar spray of $MnSo_4$ 0.3% & $ZnSO_4$ 0.5% @ 30 & 50 DAS @ 3 & 5 kg respectively / ha00000000 Foliar spraying of Chloripyriphos@ 2ml/lit of water during pest incidence Soil application of neem cake – 100Kg/ha	Rabi 2011	81.56 (Low)	5.72 (Medium)	94.63 (Medium)	Paddy
Pulses													
1	Blackgram	Irrigated	Rabi 2011	Blackgram	VBN(5)	-	ICM	New variety VBN(Bg)5 Seed and soil application of biofertilzer and bioagents Soil test based nutrient application Basal application of $ZnSO_4$ Foliar spraying of pulse wonder @ 6.25 kg / ha at peak flowering stage Urea 1% at flowering and another at 15 days interval Growth regulator NAA 4.5 ml @ 10 lit of water and salicylic acid 100 mg / lit during flower initiation	Rabi 2011	101.86 (Medium)	04.88 (Medium)	98.36 (Medium)	Paddy

								and pod formation					

2	Fodder	Irrigated	Rabi summer 2011	Cowpea	Co(Fc)8	-	Availability of green fodder	Popularization of fodder cowpea	Rabi summer 2011	96.33 (Low)	4.63 (Medium)	114.58 (High)	
Cereals													
1	Paddy	Irrigated	Rabi 2010	Paddy	ADT - 45		IPM	Seed treatment with bioagents Adopt the spacing 20 x 20 m followed by not spraying of any insecticide if the BPH below ETL Maintenance of water level Application of low dose of nitrogeneous fertilizer	Rabi 2010	94.64 (Low)	4.79 (Medium)	97.94 (Medium)	Paddy
Millets													
1	Cumbu	Irrigated	Rabi 2010	Cumbu	Co(Cu)9	-	ICM	- Co(cu) 9 seed - Seed and soil application of biofertilizers. - Soil test based nutrient application. - Micronutrient Management - Seed hardening with KCl 2% - Foliar spraying of metalaxyl @ 2g/lit of water 2 times	Rabi 2010	79.2 (low)	05.42 (Medium)	97.7 (Medium)	Onion
Vegetables													
1	Chillies	Irrigated	Rabi 2010	Chillies	KKM(Ch)1		ICM	Seed treatment with *T.virde* 4g/kg of seed and *Pseudomonas* 10g/kg of seed Soil application of *Pseudomonas fluorescens* @ 2.5 kg Soil application of 2 kg each of *Azospirillum* and *Phosphobacteria*/ha as basal Application of micronutrients 7 kg/ha as basal Soil test based fertilizer application Spraying of	Rabi 2010	97.86 (Low)	4.8 (Medium)	90.8 (Medium)	Tomato

								triacantanol 1.25 ppm on 20, 40, 60 and 80th DAP Spraying of planofix 10 ppm on 60 and 90 DAP Spraying of propargite 2 ml/lit at the time of sucking pest incidence (twice with 7 days interval)					
2	Multiplier onion	Irrigated	Rabi 2010	Multiplier onion	Co(on)5	-	ICM	Seed treatment with Azospirillum @ 200 g / kg Application of VAM @ 1 kg / sq.m of nursery	Rabi 2009	22.5	16.8	310.3	Paddy, onion
3	Small onion	Irrigated	Rabi 2010	Small onion	Co-4	-	ICM	Bulb treatment with *T.viride* @4g/kg of bulb & *Pseudomonas* @ 10g/kg of bulb. Soil application of *Azospirillum* @ 2 Kg/ha, *Phospobactreia* 2 kg/ha T.Viride 2.5kg/ha and VAM 12.5Kg/ha Soil application of MN mixture @ 6.25 Kg/ha. Basal application of $ZnSO_4$ @ 25Kg/ha. Spraying of Novaluron @ 1ml/lit during pest incidence Spraying of Chlorothalonil @ 1g / lit 2 times	Rabi 2010	82.88 (Low)	5.11 (Medium)	81.6 (Medium)	Small onion
Fruits													
1	Acidlime	Irrigated	Rabi 2010	-	PKM-1	-	Growth hormone application	Spraying of 0.1% Brassinolides + Foliar spraying of $ZnSO_4$ (0.5%), $MnSO_4$(0.5%) and Urea (0.1%) 2times		175.6	12.3	242	Cotton, groundnut

5.B. Results of Frontline Demonstrations

5.B.1. crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Cereals	BPH management in paddy	ADT 45	-	Irrigated condition	10	5	49.17	45.00	47.03	38.12	31.57	7,577.50	30,569.50	22,992.00	2.25	10,000.54	24,778.00	14,777.46	1.65
Chillies	ICM in chillies	KKM(Ch)1	-	Irrigated	10	2	27.2	25.3	26.3	21.8	20.64	51,456.00	1,18,350.00	66,894.00	2.30	46,941.00	98,100.00	51,159.00	2.08
Multiplier onion	Cultivation of multiplier onion through seeds	Co(on)5	-	Irrigated	10	5	170.75	146.25	159.38	105.08	51.67	45,207.00	1,27,504.00	82,297.00	2.82	38,574.00	84,064.00	45,490.00	2.18
Acidlime	Fruit drop management in acidlime	PKM-1	-	Irrigated	10	5	23.33	19.28	21.63	17.44	24.03	22,793.00	54,075.00	31,282.00	2.37	21,713.00	43,600.00	21,887.00	2.01
Small onion	ICM in small onion	Co-4	-	Irrigated	20	4	142	120	132.95	105.7	25.78	40,093.00	1,06,360.00	66,267.00	2.65	38,883.00	84,560.00	45,677.00	2.17
Fodder cowpea	Popularization of new improved fodder cowpea	Co (FC) 8	-	Irrigated	12	1	164.2	143.2	155.9	120.6	29.27	60,816.00	31,180.00	20,364.00	2.88	10,868.00	24,120.00	14,252.00	2.21
Fodder	Fodder bank (Cereal + pulse crop)	Co4 Guinea grass Cowpea Co(Fc 8) Hedge cucurme	-	Irrigated	10	1.0	3900 3400 195 1180	3350 2810 126 1018	3625 3105 160.5 1099	Sorghum Co27 390 --	-	38,500.00	2,30,625.00	1,92,125.00	5.9	12,100.00	39,000.00	26,900.00	3.22

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

Name of the technology	Data on other parameters in relation to technology demonstrated		
BPH management in paddy	Parameter with unit	Demo	Local
	No. of hills / m2	32.10	30.70
	No. of tillers / hill	68.72	48.21
	No. of BPH / hill before spray	11.96	13.20
	No. of BPH / hill after spray	1.25	14.25
	% nymphs of pest incidence	2.32	16.70
	B:C ratio	2.25	1.65
ICM in chillies	Fruit yield / plant	0.053	0.043
	Fruit setting	142.29	129.88
Cultivation of multiplier onion through seeds	No of plant/sq.m	25.8	23.4
	No of bulbs/plant	6.4	6.2
Fruit drop management in acidlime	No of fruit dropped before treatment	3.86	3.79
	No of fruit dropped after treatment	0.74	3.65
	Reduction percentage	80.83	3.69
	Fruit weight	65.28	58.4
ICM in small onion	No.of bulblets/plant	6.2	5.9

	Bulb weight ./ plant	21.6	18.8
Fodder bank (Cereal + pulse crop)		**Palatability%**	
	Guinea grass	91%	
	CoFC8	94%	
	Hedge luerne	95%	
	Co27	83%	
Popularization of new improved fodder cowpea	Palatability%	94%	68 %
	Branches / plant	12	7

5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (q/ha)				% Increase	*Economics of demonstration Rs./unit)				*Economics of check (Rs./unit)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Poultry																	
Turkey	Popularization of new variety Beltsville small white	Beltsville small white	20	200 birds	8.7	8.0	8.32	4.15	100.48	400	1305	905	1:3.2	475	900	425	1:1.89
Poultry	Popularization of new variety – Rhodo white	Rhodo white	10	200 birds	3.2	2.9	3.04	2.15	41.39	65	150	85	1:2.30	55	95	40	1:1.72
Rabbitry																	
Pigerry																	
Sheep and goat																	
Goat	Deworming and supplementation of vitamins and minerals	ND	10	150 g	26	21	23.8	19	25.26	2000	3500	1500	1:1.75	2100	3000	900	1:1.42
Goat	Popularization of salt lick mineral cake	ND	10	100	26	21	23.15	16.5	40.30	2000	3600	1600	1:1.8	2100	2900	800	1:1.30
Duckery																	
Others (pl.specify)																	

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

Name of the technology	Data on other parameters in relation to technology demonstrated		
	Parameter with unit	**Demo**	**Check if any**
Improving the productivity of goat	Increase in conception rate / goat (%)	**95**	**80**
	% of triplets / roots	65	30
Popularization of new variety turkey Beltsville small white	Livability (%)	96	65
Popularization of new variety Rhodo white	No. of eggs laying / animal / bird	124	62
	Livability	92	71
Popularization of salt lick mineral cake for goats	Kidding percentage	90	74
	Kidding interval (%)	20	44

5.B.3. Fisheries

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

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

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

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

5.B.4. Other enterprises

Enterprise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area {m^2}	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./unit) or (Rs./m2)				*Economics of check (Rs./unit) or (Rs./m2)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Oyster mushroom																	
Button mushroom																	
Vermicompost																	
Sericulture																	
Apiculture																	
Others (pl.specify)																	

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

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

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

5.B.5. Farm implements and machinery

Name of the implement	Cost of the implement in Rs.	Name of the technology demonstrated	No. of Demo	Area covered under demo in ha	Labour requirement in Mandays		% save	Savings in labour (Rs./ha)	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check			Gross cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
CRIDA groundnut pod stripper	30,000	Separating the groundnut pods by using groundnut stripper	20	10	14.00	34.00	58.8	1620	28,760	36,720	7,780	1.28	30,560	36,720	6,160	1.20
Modified Coconut climber	5500	Climbing coconut trees with modified coconut climber	5	5	11.92	18.70	66.60	2618	NA							
Mini portable sprinkler	30000	Mini portable sprinkler	38	15	Trial under progress											
Popularization of incubator	30000	Popularization of incubator	1	50	Hatchability %		% of increase	NA	1200	3400	2200	2.83	1400	1600	200	1.14
					Demo	Check										
					92.5	79	17.08									
Feed mixing unit	25000	Preparation of low cost concentrate feed for dairy cows	1		Milk Yield (lt / cow) %		% of increase	NA	1400	4300	2900	1:3.07	1200	2800	1600	1:2.33
					Demo	Check										
					14.5	8.2	43.4									

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

Data on other parameters in relation to technology demonstrated			
	Parameter with unit	**Demo**	**Local**
CRIDA groundnut pod stripper	Time (hours / ha)	112(41.2%)	272
	Cost (Rs./ha)	1260(41.2%)	3060
	Damage to pods	3 kg damaged / 100 kg (3%)	-
	Stripping efficiency	16 kg / hour	6 kg / hour
Modified Coconut climber	Pulse (beats/m)	61	69
	Time (hrs / ha)	56.10	93.50
	Heart beats/m	135	153
Preparation of low cost concentrate feed for dairy cows	Inter-calving period	14	65
Popularization of incubator among SHG members	Livability (%)	98	76

5.B.6. Cotton

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

Sl. No.	Category	Technology Demonstrated	Variety	Hybrid	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
						Proposed	Actual	SC/ST	Others	Total	
	Production Technology	❖ Popularization of Long staple MRC 7918 BGII Bt. ❖ Seed treatment with *Azospirillum* and *phosphobacteria* @ 3 pkts each and soil application of *Azospirillum* and *phosphobacteria* @ 10 pkts each /ha enrichment with FYM. ❖ STL based fertilizer application ❖ Application of micronutrient mixture 12.5 kg /ha as basal ❖ Maintaining optimum plant population ❖ Spraying of KNO_3 2% at 40 and 70 DAS ❖ Foliar spray of TNAU Cotton Plus @ 2.5kg/acre at flower and boll formation stage. ❖ Spraying of growth hormone NAA 40 ppm (Planofix @ 4 ml in 4.5 lit of water) at 45 and 60 DAS ❖ Spraying of NSKE 5% (25 kg of NSKE + 500 gram of kadhi soap) followed by Imidacloprid 70WS @ 7.5 ml / 10 lit of water during pest incidence at two times. ❖ Setting up of yellow sticky trap @ 12 nos / ha ❖ Release of mealy bug parasitoids *Anagyrus Locki*, *Pseudoleptimestrix, maxicana Acerophagus papayae* @ 100 nos each ❖ Above ETL Foliar spraying of Profinophos @ 2 ml / lit of water 2 times during mealy bug incidence. ❖ Nipping at 18-21th Node.	-	MRC7918 Bt BG II	Kharif 2010	20	20	18	32	50	Nil
	IPM										
	Farm Implements										

5.B.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
Rainfed	❖ Popularization of Long staple MRC 7918 BGII Bt. ❖ Seed treatment with *Azospirillum* and *phosphobacteria* @ 3 pkts each and soil application of *Azospirillum* and *phosphobacteria* @ 10 pkts each /ha enrichment with FYM. ❖ STL based fertilizer application ❖ Application of micronutrient mixture 12.5 kg /ha as basal ❖ Maintaining optimum plant population ❖ Spraying of KNO_3 2% at 40 and 70 DAS ❖ Foliar spray of TNAU Cotton Plus @ 2.5kg/acre at flower and boll formation stage. ❖ Spraying of growth hormone NAA 40 ppm (Planofix @ 4 ml in 4.5 lit of water) at 45 and 60	20	50	-	MRC 7918 BG Bt II	26.11	18.28	42.84	64262.50	200942.56	136680.06	3.12	55000.00	140682.88	85682.88	2.36

	DAS ❖ Spraying of NSKE 5% (25 kg of NSKE + 500 gram of kadhi soap) followed by Imidacloprid 70WS @ 7.5 ml / 10 lit of water during pest incidence at two times. ❖ Setting up of yellow sticky trap @ 12 nos / ha ❖ Release of mealy bug parasitoids *Anagyrus Locki, Pseudoleptimestrix, maxicana Acerophagus papayae* @ 100 nos each ❖ Above ETL Foliar spraying of Profinophos @ 2 ml / lit of water 2 times during mealy bug incidence. ❖ Nipping at 18-21th Node.															

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	Rainfed	Production technology	20	50	-	MRC 7918 BG Bt II	26.11	18.28	42.84	64262.50	200942.56	136680.06	3.12	55000.00	140682.88	85682.88	2.36
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	Labour requirement for operation (Rs./ha)		
				Demo	Local check	% change
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	19	115	7	122	2	1	3
Conventions	5	80	3	83	6	2	8
Demonstrations	13	204	54	258	7	2	9
Diagnostic surveys	5	11	0	11	2	1	3
Exhibition	1	260	50	310	18	12	30
Farmer study tours	0	0	0	0	0	0	0
Farmers Field school	0	0	0	0	0	0	0
Field Days	1	30	15	45	18	5	23
Field visits	45	45	0	45	0	0	0
Gram sabha	0	0	0	0	0	0	0
Group discussions	3	48	10	58	0	0	0
Kisan Gosthi	0	0	0	0	0	0	0
Kisan Mela	0	0	0	0	0	0	0
Training for Extension Functionaries	2	29	14	43	23	2	25
Training for farmers	9	221	22	243	74	7	81
Viedo show	3	158	19	177	0	0	0
Newspaper coverage	16	Mass					
Popular articles	5	Masss					
Publication	3	Mass					
Radio talks	1	Mass					
T.V. Programme	1	Mass					
Others (Pl.specify)	0						
Scientist visit with department of agricultural officers	3	28	0	28	0	0	0
Lecture delivered	2	122	29	151	0	0	0
Seminar	1	290	114	404	0	0	0
Extension literature distributed	3	136	25	161	0	0	0
Cotton farmers visit to KVK	35	35	0	35	0	0	0
SMS Alert messages	21	800	0	800	0	0	0
Radio announcement	12	Mass	0				
TOTAL	**209**	**2612**	**362**	**2974**	**150**	**32**	**182**

5.B.6 Technical Feedback on the demonstrated technologies on all crops / enterprise

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1.	Fodder	Popularization of fodder bank at village level	The multicut of the fodder crops and establishment of fodder bank will ensure the availability of greens throughout the year and help us sustainability of dairy sector.
2.	Cumbu	Popularization of new variety in cumbu	Under progress
3.	Acidlime	Fruit drop management in acidlime	Immature fruit drop was drastically reduced in trees applied with micro-nutrients and growth regulators. Proper nutrient management and pruning techniques have to be adopted for obtaining good yield in acidlime.
4.	Small onion	ICM in small onion	Heavy rain fall during bulb formation stage favours purple blotch disease and it was difficult to control. Indiscriminate use of pesticides can be minimized by developing resistance varieties.
5.	Multiplier onion	Cultivation of multiplier onion through seeds	Though the germination of the seed is good much care had to be taken to maintain the population of seedlings. Raised bed nursery was comparatively better than flat bed nursery The storability of the bulb may be increased for wider adoption
6.	Paddy	BPH management in paddy	➢ Due to use of *Beavaria bassiana*, the population of BPH were minimized and the incidence was reduced upto2.32% and also egg nymphs were controlled at early stages itself upto 1.2 nos . ➢ The no of spray also reduced ➢ No hazards to human being and natural enemies in rice ecosystem
7.	Groundnut	Separating the groundnut pods by using groundnut stripper	Since the dried leaves along and impurities mixed with the carnal during stripping. An exhauster fan may be attached to winnow the dried leaves and impurities
8.	Chillies	ICM in chillies	The demonstrated plot performed better in terms of growth and yield character than the check plot. This might be due to timely application of fertilizer especially micronutrient application of growth regulator reduced the flower drop and increased the fruit set.
9.	Goat	Improving the productivity of goat	The demonstrated goat show higher conception rate, reduced kidding interval, higher weight gain in kids due to supplementation of minerals & proper deworming.
10.	Turkey	Popularization of new variety turkey Beltsville small white	Since the introduction of improved variety of turkeys attain higher weight gain in a short duration and shows better livability percentage than desibirds.
11.	Poultry	Popularization of new variety Rhodo white	Due to improved variety it show overall performance in terms of better weighjt gain (Upto 2.18 Kg) within a short period, higher egg production & better hatchability & the weight of the egg is also high compared to local breeds.
12.	Dairy	Preparation of low cost concentrate feed for dairy cows	The preparation of low cost concentrate feed & supplementation to dairy cows helps to improve the milk yield of the animal. The fat percentage, SNF are also high in the concentrate supplemented animal. The intercalving period post partum, anestrus problems and metabolic disorders problem viz. calcium deficiency, ketosis, grass tetany has been reduced marginally.
13.	Poultry	Popularization of incubator among SHG members	The setting of egg in the incubator yields more hatchability, better livability of chicks.
14.	Goat	Popularization of salt lick mineral cake for goats	Since the saltlick mineral cake supplements overall demands of goat the overall production is also improved in

			terms of better kids weight gain, reduced kidding interval, more no of triplets and disease resistance for majority of goat disease are also improved.
15.	Coconut	Modified Coconut climber	Since fixing the climber on the tree is time consuming and difficult needs further modification for each fixing on 100 tree.
16.	Groundnut, Maize	Mini portable sprinkler	Under progress
17.	Cotton	Cotton production technology	The Bt cotton production technologies showed high yield of 42.84% than the local check. No. of spraying also reduced upto 5%. The average no of bolls( ), squares( ), also increased. The pest incidence level was very low when compared to local check.
18.	Sesamum		Under progress
19.	Blackgram		Under progress
20.	Fodder cowpea	Popularization of fodder cowpea	The cowpea is rich in protein and high palatability compare to other feeds help the animal to yield animal and reduce the incidence of reproductive problem in dairy cows

5.B.6.7 Farmers' reactions on specific technologies

S. No	Crop / Enterprise	Name of the technology demonstrated	Feed Back
1.	Fodder	Popularization of fodder bank at village level	The establishment of fodder bank at village level, the farmers can feed different varieties of fodder crops to the animals and also it makes available of different fodder crops throughout the year.
2.	Cumbu	Popularization of new variety in cumbu	Under progress
3.	Acidlime	Fruit drop management in acidlime	In the treated trees, fruits were bigger in size and juice content also more. Immature fruit drop was considerably reduced. Foliar spraying was easier in the fields which were pruned periodically where as it was difficult in unprunned trees.
4.	Small onion	ICM in small onion	Bulb treatment was very much effective. Untreated plots shown pink root symptom where as it was absent in treated plots. The bulbs were bigger in size and color also good in treated plots.
5.	Multiplier onion	Cultivation of multiplier onion through seeds	Bulbs obtained were bigger in size and yield also good. Shortability of their variety has to be increased for marketing it during peak period
6.	Paddy	BPH management in paddy	During the demonstration, farmers said that we were unknown about treatment with bioagents and identification of BPH adult symptoms and its damages. Foliar spraying of *Beavaria bassiana* at early stages of the crop. The BPH eggs, nymphs, adults were controlled thoroughly. This technology was very effective against BPH and also ecofriendly safe.
7.	Groundnut	Separating the groundnut pods by using groundnut stripper	The farmers first time using groundnut stripper. They felt that it will reduce the labour required for groundnut stripping At the same time. It could be handled without any technical skill
8.	Chillies	ICM in chillies	For the first time the farmers practiced seed treatment in chillies with biofertilizers. The growth regulator also applied for the first time.
9.	Goat	Improving the productivity of goat	The farmers were aware about the importance of deworming, supplementation of mineral & vitamins overall performance of goat. The farmers were also unaware when to deworming & how many times dewoming should be given. They were realized the effectiveness of deworming & supplementation of minerals in the animals.

10.	Turkey	Popularization of new variety turkey Beltsville small white	Fast weight gain obtained by this turkey were good compared to their locally available desi turkeys.
11.	Poultry	Popularization of new variety Rhodo white	Farmers expressed happiness after seeing their birds attained higher weight gain in a shorter period time, no mortality or reduced percentage of mortality, more no of eggs, better size & more weight.
12.	Dairy	Preparation of low cost concentrate feed for dairy cows	Most of the farmers opined that supplementation of concentrate feeds yields more milk during the period, and reduce the intercalving period, anestrus problem, reduced incidence of frequently occurring metabolic diseases.
13.		Popularization of incubator among SHG members	More hatchability & better livability than the conventional method of hatching.
14.	Goat	Popularization of salt lick mineral cake for goats	Better conception rate, better weight gains and less incidence of reproductive problems.
15.	Cowpea	Popularization of fodder cowpea	Due to high palatability of this field, the animal consumes more feed without any wastages. It helps us to get more quality and quantity of milk
16.	Coconut	Modified Coconut climber	It is easy to climb the tree with the help of coconut climber, but it is somewhat complicated to fix the climber for every tree. The fixation of climber on trees may be made easier.
17.	Groundnut, maize	Mini portable sprinkler	Under progress
18.	Cotton	Cotton production technology	The farmers were realized the effectiveness of various demonstration technologies in their field and they assured to following technologies incoming season. And also they have analysed the yield and cost of pesticide sprayed
19.	Sesamum		Under progress
20.	Blackgram		Under progress

5.B.6.8 Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants
1	Field days	17	293
2	Farmers Training	30	655
3	Media coverage	19	Mass
4	Training for extension functionaries	2	62

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																	
Paddy																	
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

*Please ensure that the name of the hybrid is correct pertaining to the crop specified

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										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management	2	46	1	47	11	0	11	57	1	58
Soil and Water Conservation										
Production of organic inputs										
Others (pl.specify)										

Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables	1	18	0	18	2	0	2	20	0	20
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
Integrated crop management	4	96	12	108	7	0	7	103	12	115
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology										

Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management										
Production and use of organic inputs	2	86	4	90	4	0	4	90	4	94
Management of Problematic soils										
Micro nutrient deficiency in crops	2	22	4	26	6	4	10	28	8	36
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
Livestock Production and Management										
Dairy Management	1	0	11	11	0	9	9	0	20	20
Poultry Management	1	0	15	15	0	0	0	0	15	15

Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	20	6	26	9	2	11	29	8	37
Animal Disease Management	1	0	8	8	0	12	12	0	20	20
Feed and Fodder technology										
Production of quality animal products										
Others Scientific Management in Goat farming	1	4	12	16	0	11	11	4	23	27
Integrated Farming System	1	8	1	9	1	0	1	9	1	10
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	23	23	0	2	2	0	25	25
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	3	0	70	70	0	19	19	0	89	89
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										

Post Harvest Technology										
Others (pl.specify)										
Plant Protection										
Integrated Pest Management	7	160	10	170	38	2	40	198	12	210
Integrated Disease Management	2	40	0	40	13	1	14	53	1	54
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										

Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
Apiculture										
Others (pl.specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**30**	**500**	**177**	**677**	**91**	**62**	**153**	**591**	**239**	**830**

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										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production	1	11	0	11	0	0	0	11	0	11
Nursery management										
Integrated Crop Management	6	97	16	113	4	0	4	101	16	117
Soil and Water Conservation										
Integrated Nutrient Management	3	33	9	42	2	0	2	35	9	44
Production of organic inputs										
Others (pl.specify)										
Role of bioagents in plant protection aspects	1	16	6	22	0	0	0	16	6	22
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising	2	35	1	36	1	0	1	36	1	37
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
Integrated crop m anagement	7	150	6	156	13	0	13	163	6	169

Drought management	1	18	0	18	2	0	2	20	2	20
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										

g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management	3	51	5	56	4	0	4	55	5	60
	10	166	46	212	8	5	13	174	51	225
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing	1	20	0	20	0	0	0	20	0	20
Others (pl.specify)										
ICM in groundnut and cowpea	2	40	3	43	4	1	5	44	4	48
ICM in chillies	1	18	1	19	2	0	2	20	1	21
Intercropping in yam	1	16	6	22	0	0	0	16	6	22
Livestock Production and Management										
Dairy Management	1	4	6	10	8	7	15	12	13	25
Poultry Management	2	22	5	27	4	3	7	26	8	34
Piggery Management										
Rabbit Management										
Animal Nutrition Management	2	30	3	33	14	3	17	44	6	50
Animal Disease Management	1	13	0	13	2	0	2	15	0	15
Feed and Fodder technology	1	10	7	17	2	1	3	12	8	20
Production of quality animal products										

Others Poultry Disease Management	2	7	15	22	1	5	6	8	20	28
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet	1	0	15	15	0	3	3	0	18	18
Minimization of nutrient loss in processing										
Processing and cooking	2	5	15	20	1	12	13	6	27	33
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	2	12	14	1	3	4	3	15	18
Women empowerment										
Location specific drudgery production	4	48	1	49	5	2	7	53	3	56
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology	1	16	2	18	2	0	2	18	2	20
Others (pl.specify)										
Drudgery reduction (Coconut Climber)	1	20	2	22	2	0	2	22	2	24
Plant Protection										
Integrated Pest Management	4	103	16	119	13	3	16	116	19	135
Integrated Disease Management	3	46	8	54	3	1	4	49	9	58
Bio-control of pests and diseases										

Production of bio control agents and bio pesticides										
Others (pl.specify)										
IPM & IDM	2	57	0	57	7	0	7	64	0	64
Agro Ecological Situation Analysis in groundnut	2	29	8	37	0	0	0	29	8	37
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										
FFS – groundnut introductory meet	1	9	5	14	0	0	0	9	5	14
Ex-trainees meet at puthuviralipatti	1	11	1	12	0	0	0	11	1	12
Participatory Rural Appraisal at Nallur	1	14	0	14	4	0	4	18	0	18
Participatory Rural Appraisal at Chathiramanai	1	14	0	14	0	0	0	14	0	14
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										

Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
Apiculture										
Others (pl.specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**72**	**1131**	**220**	**1351**	**109**	**49**	**158**	**1240**	**269**	**1509**

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										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition	1	0	23	23	1	10	11	1	33	34
Small scale processing	1	0	7	7	0	22	22	0	29	29
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										

Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
Information and communication technology	2	0	18	18	14	56	70	14	74	88
Composting techniques	1	6	22	28	0	0	0	6	22	28
Importance of soil and water testing and sampling	1	0	22	22	9	0	9	9	22	31
TOTAL	**6**	**6**	**92**	**98**	**24**	**88**	**112**	**30**	**180**	**210**

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

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										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										

Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
TOTAL										

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	1	18	20	38	9	2	11	27	22	49
Integrated Pest Management	3	43	32	75	33	5	38	76	37	113
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	1	0	19	19	0	7	7	0	26	26
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
Productivity enhancement in horticultural crops	4	29	14	43	35	0	35	64	14	78
Concept of approaches of watershed, PRA and preparation of DPR, utility of GPRS	1	5	2	7	8	0	8	13	2	15
Techniques for water stress management	2	32	22	54	38	2	40	70	24	94
Total	**12**	**127**	**109**	**236**	**123**	**16**	**139**	**250**	**125**	**375**

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

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										
Integrated Pest Management										
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										
Household food security										
Any other (pl.specify)										
Total										

7.G. Sponsored training programmes

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**										
1.a.	Increasing production and productivity of crops										
1.b.	Commercial production of vegetables										
2	**Production and value addition**										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops										
3.	**Soil health and fertility management**										
4	**Production of Inputs at site**										
5	**Methods of protective cultivation**										
6	**Others (pl.specify)**										
7	**Post harvest technology and value addition**										
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
8	**Farm machinery**										
8.a.	Farm machinery, tools and implements	1	15	4	19	1	0	1	16	4	20
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	**1**	**0**	**17**	**17**	**0**	**13**	**13**	**0**	**30**	**30**
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)										
	Watershed management	**6**	**112**	**86**	**198**	**59**	**43**	**102**	**171**	**129**	**300**
	Total	7	112	103	215	59	56	115	171	159	330

Details of sponsoring agencies involved

1. National Agricultural Bank for Agricultural Rural Development
2. Community polytechnic scheme
3. Department of Agricultural Engineering, Perambalur
4. District Watershed Development Agency, Perambalur

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

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**										
1.a.	Commercial floriculture										
1.b.	Commercial fruit production										
1.c.	Commercial vegetable production										
1.d.	Integrated crop management										
1.e.	Organic farming										
1.f.	Others (pl.specify)										
2	**Post harvest technology and value addition**										
2.a.	Value addition										
2.b.	Others (pl.specify)										
3.	**Livestock and fisheries**										
3.a.	Dairy farming										
3.b.	Composite fish culture										
3.c.	Sheep and goat rearing										
3.d.	Piggery										
3.e.	Poultry farming										
3.f.	Others (pl.specify)										
4.	**Income generation activities**										
4.a.	Vermi-composting										
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery and implements										
4.d.	Rural Crafts	1	0	3	3	0	9	9	0	12	12
4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation										
4.h.	Nursery, grafting etc.										
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	**1**	**0**	**3**	**3**	**0**	**9**	**9**	**0**	**12**	**12**

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	19	354	97	451	0	0	0	17	14	28
Kisan Mela	0									
Kisan Ghosthi	0									
Exhibition	4	2000 farmers						200 extn functionaries		
Film Show	5	111	91	202	0	0	0	17	0	17
Method Demonstrations	35	1275	205	1481	0	0	0	0	3	3
Farmers Seminar	0	0								
Workshop	0	0								
Group meetings	29	239	74	313	0	0	0	27	5	32
Lectures delivered as resource persons	8	649	342	991	0	0	0	88	25	113
Newspaper coverage	60	Mass								
Radio talks	6	Mass								
Radio announcement	6	Mass								
TV talks	1	Mass								
Popular articles	24	Mass								
Extension Literature	93	423	359	782	0	0	0	48	18	66
Advisory Services	125	289	145	434	0	0	0	14	1	15
Scientific visit to farmers field	3	0	0	0	0	0	0	22	0	22
Farmers visit to KVK		342	80	422	0	0	0	69	59	128
Diagnostic visits	23	108	12	120	0	0	0	0	0	0
Exposure visits	11	163	121	284	0	0	0	85	52	137
Ex-trainees Sammelan	1	18	2	20	0	0	0	0	0	0
Soil health Camp	5	93	47	140	0	0	0	0	0	0
Animal Health Camp	3	195	83	278	0	0	0	0	0	0
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0
Agricultural camp	1	32	14	46	0	0	0	16	8	24
Soil test campaigns	6	102	21	123	0	0	0	0	0	0
Farm Science Club Conveners meet	1	11	9	20	0	0	0	0	0	0
Self Help Group Conveners meetings										
Mahila Mandals Conveners meetings										
Celebration of important days (specify)										
Ozone day	1	0	36	36	0	0	0	0	2	2
Women's day	1	0	112	112	0	0	0	0	2	2
Any Other (Specify)										
Field visit	45	135	26	161	0	0	0	4	0	4
Clinic day	1	7	2	9	0	0	0	0	0	0
SMS Alert messages	11	14391	104	14495	0	0	0	3226	310	3536
Publication										
Leaflets	7	4000 copies								
Book	1	500 copies								
Total	**530**	**25437**	**1982**	**27419**	**0**	**0**	**0**	**3833**	**499**	**4332**

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PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

9.A. Production of seeds by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Paddy	TRY 1		11.20	13440.00	4
Oilseeds						
Pulses						
Commercial crops						
Vegetables	Bhendi	Arkka Anamika		0.03	900.00	8
	Small Onion	Co 4		9.93	15888.00	2
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops	Cotton	MRC 7918		0.009	1500.00	2
Forest Species						
Fodder crops	Fodder Cowpea	Co FC 8		0.14	1400	7
	Fodder Sorghum	Co FS 29		0.03	1200	3
	Desmanthus	Local		0.24	9,600.00	32
Total				**21.57 qtl**	**43928.00**	**58**

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				3	45	1
Vegetable seedlings						
	Curry leaf	Sengampoo		8	40	4
Fruits	Acid lime	Budded Plant		32	2560	18
		Andhra				
	Amla	NA-7		60	1800	44
		BSR 1				
	Guava	L-49		178	3560	30
		Seedless				

		red				
	Jack	PLR1		80	1500	33
	Mango	Banganapalli		50	400	20
		Bangalora		10	300	4
		Imanprasad				
		Baneshan				
		Mallika				
		Neelam		125	5000	70
		Senthura				
		Local				
	Pomagranate	Red				
		Ganesh		135	3375	65
	Sapota	PKM 1		160	1400	40
		PKM 4		20	800	18
	Custered Apple	APK 1				
	Sathugudi	local		20	1600	7
	Grapes	Bangalore blue				
	Jamun	Graft		54	2700	6
	Singapore Cherry			35	1800	6
Ornamental plants						
	Acalypha			74	740	62
	Alamanda			102	1530	80
	Aglonema			14	140	10
	Cordiline			14	175	10
	Crotons	Big				
		Small				
	Anthimantharai					
	Aralia					
	Alphenea			7	375	2
	Adenium			7	175	5
	Areaca palm			138	6900	98
	Bismarlia			10	250	4
	Bohainvillae			8	80	2

	Caladium			24	740	10
	Clitoria					
	Coleus					
	Cerysanthemum			8	160	3
	Crosantra			51	510	43
	Cuffea			7	105	3
	Cycas			2	500	1
	cordeline			14	280	4
	Cyclone gold			11	220	5
	Diffenpakia			43	860	30
	Dresseena			17	170	12
	Duranta			943	4715	275
	Delonix			106	1590	99
	Crotons red			15	300	8
	Eranthimum			2	20	1
	Euphorpia			21	315	16
	Fish tail palm			5	350	2
	Grass	Koriyan		1662	24930	140
				30	300	10
	Hibiscus			103	1160	78
	Hemilanthus			10	150	6
	Irissine			35	175	23
	Ixora	Mini		454	9080	308
	Jashmine			330	3300	198
	Koriasis			132	1320	78
	Lantana					
	Canna			2	50	1
	Money plant			15	150	8
	Nanthiyavattai			302	3020	187
	Neerium			5	50	2
				150	2250	123
	Ophiopiogen			10	150	4
	Peltophorum			33	495	24
	Pothos					

	Pritcharida palm					
\	Perewinkle			5	50	3
	Porthlea			30	150	26
	Purple heart			11	55	4
	Evy creeper					
	Rayal palm			98	3220	67
				75	7500	45
	Rusalia			1	20	1
	Riodiscolor			37	370	24
	Rose	Edward		225	4500	209
		Local		50	500	42
				2	600	1
	Nictantihis					
	Singonium					
	Techoma			183	2745	126
	Thazhampoo			2	40	2
	Thuja			76	1900	75
	Tabernae			18	270	13
	Verbina			20	200	15
	X-mas tree	Big				
		Small		50	3000	38
	Bohinia					
	{edilanthus					
	Perilinkile					
	Thuja sp					
	Russalia					
	Nanthiya vattai	Miniature				
	Agave					
	Agave americana					
	Cesalpiniya					
	Setcriita					
	Musanta					
Medicinal and Aromatic						
Plantation						
	Coconut	TxD				

		Tall		1400	3500	906
		Dwarf		122	18300	93
		MDY Red		2	150	1
		MDY		57	4275	41
		MDR		34	2550	30
Spices	Tamarind	:Local		60	1200	45
	Tamarind	Graft		25	750	20
Tuber						
Fodder crop saplings						
	Cumbu Napiar	Co 4				
	Mulberry Plants	V 1				
Forest Species						
	Almond	Indian		147	2205	127
	Cassia					
	Delonix					
	Polyalithya			100	1200	68
	Poovarasu			6	60	3
	Pungan			290	1450	215
	Teak (Small)					
	Teak (Big)			700	8400	450
	Feltoporam					
	Neem			310	3100	278
	Rhodotendran					
	Asparagus					
	Bamboo			130	1560	111
	bale			20	300	7
	Red sandal			10	100	7
	Iluppai			5	50	2
	Hill Neem			27	405	9
	Vengai			50	500	5
	Mahahani			50	750	47
	Rosewood			50	750	40
	Kumil Teak			160	2400	98

	Sisu			50	500	25
	Fig			4	40	1
	Karungali			10	100	5
	Vila			10	100	2
Fodder crops	Cumbu Napiar	Co 4		1,76,980 setts	35,396.00	80
	Mulberry	V1		250 setts	500.00	2
	Glyricidia	Local		50 setts	100.00	2
Total				**187878**	**210471.00**	**5752**

9.C. Production of Bio-Products -Nil

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

9.D. Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Goat	Tellicherry goat	9 kids	16950.00	6
Total				

PART X – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND DROUGHT MITIGATION

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

HRKVK Newsletter is published on Quarterly basis and it was started in HRKVK during 2004. For the reported year Quarterly newsletters for four times published and distributed to line departments, Farming community of Perambalur district, various ICAR, TNAU institutes of Tamil Nadu. For each Quarter 300 No.of copies and totally for 4 quarter of reporting year 1200 no.of total copies printed and distributed.

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers	Mirid Bug – An Emerging pest on Bt cotton in Perambalur district of TamilNadu	C. Sankar,*et.al*	1
Technical reports	-		
News letters	Published in 4 times		1200
Technical bulletins	Mirid bug management in Bt cotton	C. Sankar, *et.al*	500
Popular articles	1. Pest surveillance – papaya mealy bug	C. Sankar	Mass
	2. Seed treatment in Bt cotton		
	3. Cotton nipping		
	4. Management of cotton aphids		
	5. BPH management in paddy		
	6. Mirid bug management in Bt cotton		
	7. Biology of insect – pest in paddy		
	8. Management of insect-pest in paddy		
	9. Package of practices of turmeric		
	10. IPM in groundnut		
	11. IPM in mango		
	12. IPM in sugarcane		
	13. Gallfly management in paddy		
	14. Apiculture		
	15. Tomato processing	P.Vijayalakshimi	Mass
	16. Turkey Rearing	Dr.P.Sivakumar	Mass
	17. Emu Farming		
	18. Profitable Piggery farming		
	19. Integrated Disease management in Piggery Farming		
	20. Venpantri valarpum Velai Vaippum		
	21. Integrated Farming System		
	22. Methods of Clean Milk production		
	23. Goat Farming in Elevated floor		
	24. Backyard Poultry farming – A boon to Rural woman		
Extension literature	**Leaflet**		
	1. Turmeric cultivation	C. Sankar, *et.al*	1000 copies
	2. IPM in paddy	C. Sankar	1000 copies
	3. Package of Practices for Redgram	R. Marimuthu	1000 copies
	4. Package of Practices for Redgram	All SMS	1000 copies
	5. Package of Practices for Cumbu	All SMS	1000 copies
	6. Package of Practices for Blackgram	All SMS	1000 copies
	7. Package of Practices for Sesamum	All SMS	1000 copies
Others (Pl. specify)			
Booklet	Onion cultivation	J.Kathiravan C. Sankar R. PriscaFlavia V. Karuppasamy	1000 copies
	Penkalukku Yetra Suya Thozhilgal	P.Vijayalakshimi Dr.R.Marimuthu	500 copies.

	Emerging technologies in Bt cotton		
TOTAL			

10.B. Details of Electronic Media Produced -Nil

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

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

Success stories

1. Improved techniques increased the income for small onion

Perambalur distict is well known for small onion cultivation and it covers around 7000 ha under this crop. Alathur, Perambalur and Veppanthattai are the 3 blocks where small onon is predominantly cultivated. HRKVK offered training on small onion cultivation to the onion growers of Irur village, Alathur block. In this training, improved technologies viz., use of bioagents, importance of micronutrients, foliar application of nutrients, IPM and IDM were taught to them.

Mr. M. Panneerselvam, S/o Maniyaran one among the trainees was much inspired and adopt the technologies in his field. For this he has frequently contacted the KVK and clarified his doubts. KVK scientists also visited his field and given advice to him. Based on our recommendation he practiced bulb treatment with *T.viride* and *Pseudomonas fluorescence* each @ 5 g / kg of bulbs one day prior to sowing. The treated bulbs were heaped under shade on the next day the heaped bulbs were sprended and treated with *Azospirillum* and *Phosphobacteria* each and 1 kg / acre and planted 1 hour later. Fertilizers were applied based on the soil test report. Foliar application of micronutrients mixture @ 0.5% was practiced on 40^{th} and 50^{th} days after planting. He used the yellow sticky trap to attract the thrips which is the serious pest of small onion. Along with insecticides he used NSKE @ 0.3% to control the cutworm, since the bulbs were treated with *Tviride* and *Pseudomonas fluorescence* incidence of root rot were drastically reduced. Very few plants were affected by root rot which were pulled out from the field and destroyed. Those pulled out areas were drenched with Carbendazim 0.1% and Streptomycin sulphate 0.02%.

The harvested bulbs were bigger in size and the colour also good. He could obtain the bulb yield of 58 q / acre. He was informed with the daily market information for small onion through SMS. Hence, he stored the produce and sol it when the price was high. He could got a very good price of Rs. 12 / kg. By this he could earn Rs. 69,600/- from an acre. The gross expenditure towards onion cultivation was Rs.

31.850/acre. He could obtain the net return of Rs. 37750/ acre. In the forthcoming seasons also he could adopt the technologies what he has learned from us and he is in touch with the KVK for knowing the emerging technologies.

2. Azolla cultivation

One of the Self-Help group Member from Eachampatti Village Mrs. Thowleth visited our KVK with her son and discussed about the KVK activities. They were visited azolla demo unit in our KVK farm. She is having 4 acres land cultivating Paddy. She wanted to know the cultivation of azolla in paddy field as well as in plots which would be ideal for the locality who is having Dairy animals.

Intervention

Training has been offered to her about azolla cultivation in Paddy field as well as in plot system. After getting training she was constructed a small plot in front of their house with partial shade. Seed materials also provided to her through KVK. After 10 days KVK scientist visited her plot during that time, our SMS observed that the azolla turned yellow in colour and growth also not upto the expected level. Our scientist recommended 50 gram rock phosphate and 2 kg of fresh cow dung solution to improve the growth after azolla and turned green colour. After 15 days, she has started to harvest azolla from her plot of about 1 kg / day and the same time feeding one kg of groundnut cake / day to her animal was restricted. Even though she has restricted the concentrated feed (groundnut cake 1 kg) to her animal, the milk yield was not reduced. by the supplementation of 1 kg azolla. Simultaneously the ultimate effect of SNF and fat content of the milk also raised. From this result, some of the farmers came forward to raise the azolla and got the seed material from her. She came to know the demand of azolla seed. She extended the azolla cultivation in her paddy field. Since the azolla was cultivated directly in the paddy field. It reflected on the growth of the paddy crop by controlling the weeds and gave nitrogen supplementation. Hence, she reduced the application of nitrogenous fertilizer like urea 50 kg / acre in the paddy field.

Economic gain

She is producing 40 Kg / month which cost around 2000/-. The expenses towards production of such quantity are around Rs.500/month including labour cost. The net profit is Rs.1500/month. Due to providing azolla as feeding material to her dairy cow, she reduced the feeding of oil cake(1 kg / day / cow). From this she could saved Rs. 600 / month. On an average she could earn Rs.2100 / month as income from azolla production.

Case Study

Uses of Bioagent in Turmeric

Background:

Moolakkadu is the village name being called informal way comes under the Kurumbalur panchayat where general cropping is Paddy, Groundnut, cotton, Tapioca, onion crops etc. There were two reasons that the Turmeric was taken to this village that they expressed the labour scarcity was a problem in general, more no. of pesticide spray for their existing crops which incurred higher expenditure as another problem. Hence, people of the village expressed the need of better alternate crop during a visit by HRKVK scientist to the area. This followed many follow up meetings and interactions with the farmers by forming a formal group having 25 members.

Process:

1. Group formation
2. Exposure Visit
3. Training
4. Demonstration
5. Farmers group discussion

HRKVK scientist made a preliminary reconnaissance survey in the village to assess the general cropping situation and the package of practices followed. With such baseline information, it introduced the Turmeric crop alongwith the Bioagent to the group members trying initially with 5 members in specified trials. The initial effort taken by the 5 members got good income (1.2 lakhs/acre) from the turmeric crop. This sparked and gathered the attention of other members also to follow such cropping system with Rhizome treatment of Bioagent. About 40 members of the same village immediately reacted to such cropping change and started requesting for seed and Bioagent arrangement from HRKVK. Seeing the situation HRKVK arranged the Bioagents, seed materials purchase especially the variety ***'BSR-1'*** from other turmeric cultivating track existing in Erode area. This was an arrangement done in a strategic way to enable and involve the respective farmer group to

outsource such seed materials on their own. The enabling guidelines were given by HRKVK often as per requirement.

Technological intervention:

Besides arranging a situation for varietal introduction to the area, HRKVK conducted periodical meetings with the group and conducting Training, Demonstration, Advisory service, Exposure visit etc. During the course, the members reported that the Rhizome rot as emerging problem in their turmeric field. Based on the problems expressed, the scientist from HRKVK made an assessment study to find out the cause for the rot and found that the 'improper storage system' as a cause to the particular disease. To rectify the problems it was recommended to treat the rhizomes with *Psudomonas* and *Trichoderma vride* @ 10 gms per litter of water, soaking the Rhizome for half an hour and shade drying for 1 hour. They were also advised with proper storage system such as providing sand over the surface and spreading 0.5 kg *Psudomonas* and *Trichoderma vride* to store the rhizome. This would solve the rotting problem. In the main field affected plants exhibit gradual drying of leaves along the margins. This ultimately resulted in complete drying of all the leaves. The basal portion of the shoot appears watery and soft. The root system was very much reduced and its tissues also affected. In advanced stage the infection spread to rhizomes which decompose and turn into a decaying mass at tissues. The bright orange colour at the rhizome changed into different shades of brown. Further the affected rhizome become soft. The development of rhizome would be very poor. So, our KVK scientists recommended rhizome treatment followed by soil application of *Psudomonas 2.5kg/ha* + *Trichoderma viride 2.5kg/ha* as basal and top dressing (150 days) and also foliar spraying bioagent @ 2%. Under the demonstration plots Rhizome rot was drastically reduced.

Impact

Horizontal spread

Initially the technology was demonstrated in one village of Perambalur block. Further it was extended to 750 ha in three blocks of Perambalur district viz. Perambalur, Veppanthattai and Veppur.

Economic gain:

Each farmer realized an yield range of 25 to 30 quintals per acre and income of Rs.1,35,000/- and the expenditure was Rs.35,000 only and hence the net profit was 1 lakh /ha. All the Turmeric farmers got the similar benefits in terms of yield and return. Such benefit binding their relationship and took collective decision/actions in selling their product to particular outside market.

Employment Generation:

Rhizome treatment offered employment for one male and one female labour. Since many turmeric growers have contact with KVK they came to know about turmeric boiler and used it for boiling the rhizome. It would offer an employment for 20 men labours for boiling rhizome. The number of labours required for polishing was increased due to increased yiled of rhizome.

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

Flagging method of communication

Our KVK has developed an innovative methodology to communicate IPM technologies in Cotton to the cotton growers. The so called technology is named as flagging method of communication. In this method, if any cotton field identified with severe pest incidence during village visit a flag would be fixed in that field. The flag would consist the KVK name and phone number. When the land owner visiting the filed or any farmer crossing the field they would contact the KVK through phone. The control measures to be followed for the particular problem would be explained to him. By this method the solution for the problem could spread to the village farmers. Sofar more than 200 farmers were benefited by this approach. This would help the farmers not only in controlling the pest but also it reduced the expenditure towards plant protection. Since the response for this methodology was very good we have planned to extend this to other crops also in the forthcoming season.

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	**Cotton**	Cow urine and dung are collected, mixed with water and fermented for fewdays. After fermentation, the content is sieved to control sucking pests and leaf culture. Cow urine act as germicide and cow dung provides nutrients to the crops.	To control the sucking pest
2	**Groundnut**	Raising the chickpea crop in the raised bed as a border crop for the control of Helicoverpa armigera	To control the Helicoverpa armigera
3	**Paddy**	Rhizome powder of turmeric is mixed with paddy grains	To control the rice neevils
		Cow dung mixed with water thoroughly and kept for 3-4 hours till the course materials settle down. The solution on top is filled and sprayed on paddy leaf	To control of bacterial leaf blight in paddy
4	**Onion**	Erecting dried coconut fronds around the nursery	To prevent passage of hot air there by reducing the tip drying incidence of onion seedlings.
5	**Dairy**	The combination of betel leaves & aloe vera & lime make in to paste and applied all over the inflamed area of mastitis affected cow	To reduce the inflammation of chronic mastitis
6	**Dairy**	Neem Oil in combination with camphor powder were applied & instilled into the maggots wound	For killing & control of maggots.
7	**Dairty**	Feeding of Aloe vera	To treat infertility problem and eliminate worms.

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

HRKVK took concerted effort in holding series of methodological approach to analyze the ground situation at each of its operational villages. To understand the problems that hamper the crop production, animal production and the allied aspects that support the livelihood of farm families. It followed various specific methodologies as mentioned below. Based on the data collection for baseline information HRKVK planned its intervention plan through FLD, OFT, FFS, various trainings of on and off farm etc.

1.Participatory Rural Appraisal (PRA)

HRKVK conducted PRA at each of its operational villages to assess situation and collect the baseline data on factors contributing production outcome. Thereby the issues identified to plan the interventions. The following tools were used while conducting PRA study.

Tools:

i) Village Resource Mapping
ii) Village social Mapping
iii) Seasonality Calendar
iv) Transect walking
v) Ven-diagram
vi) Group interactions & deliberations.

1. On – site interactions during field visits.
2. Group meetings with commodity groups, FFS group, SHG group.

3. Creating platform to interact and identify the need of farmers during on campus and off campus training programmes.
4. Individual farmers while visiting the KVK for opinion seeking,

Aforementioned methodological approaches, tools were used in finding the needs based on which the required course materials for training farmers and farm women, other related activities were planned

10.G. Field activities

i.	Number of villages adopted	-	6
ii.	No. of farm families selected	-	125
iii.	No. of survey/PRA conducted	-	6

10.H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab

1.Year of establishment : 2006

2.List of equipments purchased with amount:

Sl. No	Name of the Equipment	Qty.(Nos.)	Cost (Rs.)
1	PH meter	1	10,125.00
2	Conductivity meter	1	10,125.00
3	Visible spectrophotometer	1	52,875.00
4	Flame photometer	1	43,875.00
5	Water quality analyzer	1	37,125.00
6	Hot plate	1	1,536.00
7	Lab willey mill	1	9,120.00
8	Double distillation unit	1	12,000.00
9	Hot air oven	1	10,080.00
10	Electronic top loading balance		
	Accuracy 0.1mgm	1	57,600.00
	Accuracy 10 mgm	1	19,200.00
11	Water bath	1	3,360.00
12	Rotary shaker	1	16,800.00
13	Centrifuge	1	11,520.00
14	Magnetic stirrer	1	2,304.00
15	Electronic automatic kel plus Digestion system	1	73,208.00
16	Automatic distillation system	1	1,29,724.00
17	Refrigerator	1	9,630.00
	Total		**5,10,207.00**

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	1417	1131	169	36775.00
Water Samples	156	121	42	1720.00
Plant samples				
Manure samples				
Others (specify)				
Total	**1573**	**1252**	**211**	**38495.00**

Details of samples analyzed during the 2010-11 :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	**365**	192	57	12500.00
Water Samples	34	27	18	1130.00

Plant samples	0	0	0	0
Manure samples	0	0	0	0
Others (specify)	**0**	**0**	**0**	**0**
Total	**399**	**219**	**75**	**13630.00**

10.I. Technology Week celebration - Nil

Period of observing Technology Week: From to
Total number of farmers visited :
Total number of agencies involved :
Number of demonstrations visited by the farmers within KVK campus :

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies			
Lectures organized			
Exhibition			
Film show			
Fair			
Farm Visit			
Diagnostic Practicals			
Supply of Literature (No.)			
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			

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

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	No.of

		interactions	participants
Total			

D. Animal health camps organized

State	Number of camps	No.of animals	No.of farmers
Infertility camp	**2**	**145**	**64**
Mass veterinary Camp	**3**	**540**	**217**
Total	**5**	**685**	**281**

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

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
Total												

PART XI. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Integrated pest and diseases management in small onion	30	15	45000.00	75000.00
Integrated pest and diseases management in Turmeric	67	20	80000.00	250000.00
IPM and IDM in paddy	112	10	18000.00	25000.00
IPM in Bt Cotton	182	50	75000.00	105000.00
Value addition Tapioca and preparation of home care products	30	16%	-	500-700
Value addition in fruit and vegetable processing	29	20%	-	300-750
Tailoring & Embroidery	12	33%	-	800-1200
Integrated Nutrition Management in Dairy cattle	25	16	8500	14600
Integrated Disease Management in Goat & sheep	30	21	2000	3400

Rearing of Rabbits	20	13	1500	6500
Rearing of Desibirds	50	37	3000	10000

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)

Utilization of Botanical pesticides – vegetables

The crops like Onion, Bhendi, Tomato. Chillies, Brinjal, Bittergourds, Snakegourd are regularly being cultivated in Perambalur district and these crops are always being heavily prone to attack by different insect – pests. For management of these pests application of various chemicals was the only practice by the farmers which led to the development of resistance amongst insect pests against chemical pesticides. Besides, the pests, natural enemies of the pests also destroyed. Thus the effective pest control was not achieved even by investing high amount on plant protection.

Thus KVK identified the common problem among the farming community and special emphasis was given to provide the low cost and effective pest management technology through FLD, OFT, Training, Demonstration and mass media etc., that was helped them to minimize the cost of plant protection as well as to reduce the pest incidence. The vegetable farmers were selected to implement the technology of production and utilization of different botanical extracts for plant protection.

Initially the awareness training programme was conducted regularly and the illeffects of chemical pesticides and other low cost options available with the farmers to solve the pest problems. This group of farmers was given awareness about the use of available inputs like neem seed, pungan, vitex, jatropha, chilli, garlic, tobacco and papaya to prepare the extracts and spraying them on various crops against different pests.

Similarly the vegetable farmers were given advisory service on preparation of various botanical extracts of certain concentration and the field study was conducted to test the efficacy of these botanical pesticide against different insect-pest. Now the trained farmers prepare the botanicals and used in large scale.

Impact

Continuous use of different botanical pesticide the vegetable farmers in Perambalur district has become confident about the effectiveness of the locally available inputs for pest management. They could able to save 50% of plant protection cost alongwith satisfactory crop yield. The useage of chemicals also reduced upto 50% and no serious outbreak of any pest was noticed. Similarly they could increase the net profit by 10-12%. This technology is now spreading horizontally to the other crop farmers. Thus it helps to increase the group activity of farmers towards the preparation of botanical pesticides.

BULB TREATMENT IN SMALL ONION

Small onion is one of the predominent horticultural crops of Perambalur district cultivated in more than 7000ha. Traditionally the farmers cultivating the crop in the same land and most of them did not practice crop rotation. Being repeated use of same crop in the same land soil nutrients are depleted and occurrence of pest & disease also high. Usually the farmers apply chemical pesticides after identifying the pest /diseases. They did not practice bulb treatment and they didn't have awareness about bulb treatment. From 2007 onwards KVK is popularizing the bulb treatment technique to the farmers through demonstrations, trainings, newspaper coverage, advisory services and SMS. In collaboration with TNAU the technology has been demonstrated to the farmers. This technique includes selection of healthy bulbs and treating them with *Trichoderma viride* and *Pseudomonas fluorescence* each @ 5g/Kg of bulbs one day prior to sowing and treating the same bulbs with *Azospirillum* and *Phospobacteria* @ 1Kg/acre one hour prior to sowing. *T.viride* and *P.fluoresence* control the seed borne and soil borne pathogen which cause root rot and twister blight diseases. Incidence of these diseases were drastically reduced in the fields where treated bulbs were used. The number of spraying of pesticides also reduced in this case and there by the farmers could save Rs.3000/ha towards managing the diseases.

By seeing the performance the technology has been adopted in 3 blocks of Perambalur district viz. Perambalur, Alathur & Veppanthattai . Many of the onion growers of these blocks now practicing bulb treatment in small onion. This is one of the viable technologies transferred through KVK largely adopted by onion growers of Perambalur.

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

KVK has been keen interest to collect the impact from the operational areas to whom extended our service. We have collected the impact during on, off campus trainings, Demonstrations and field days of respective FLD programmes. Among the impact collected for various activities, we have enlisted below of some programmes viz. FLDs, OFTs and demonstrations.

A. We have introduced the groundnut stripper under FLD programme, it have created a heavy demand from famers about its availability, cost of the machine and subsidy details. This helped the farmers to save the stripping cost (Rs.1620/ha), time (160hrs/ha) and labour (20no/ha). This in turn increased the cultivation area from 5 ha to 25 ha during Rabi-summer season alone. It was perfectly addressed the labour scarcity.

B. We have conducted a OFT on method of planting in redgram. This technology is totally new to the village. During the initial step, the farmers were reluctant to initiate the trial. And at the same time, 5 of them came forward to took the trial. On completion of the assessment, more no of farmers were willing to do this planting during the coming year. Moreover, twenty five farmers were already obtained the BRG 1 long duration dual type seed from their forefrontier farmer. They changed their mind set from sowing of intercrop to transplanting as pure crop. Each and every farmer from the Farmers Interest Group (FIG) of chathiramanai village are ready to follow this technology with some modification during this year.

C. With regard to small onion the technologies viz. cultivation of small onion through seed and integrated crop management in small onion have been demonstrated to the farmers through FLD. Trainings also offered to the farmers. Because of its increased yield and income these techniques become popularizing among the farming community and the adoption rate also increased gradually.

D. Daily Market rate for commodities like cotton, small onion, tomato, tapioca and acidlime have been sent to the farmers through SMS who have registered their Mobile numbers in KVK. This would help the farmers to sell their produce when the price is hike in the Market. SMS alert messages regarding weather forecast, pest alert, fertilizer recommendations and so on created excellent impact among the farmers when they sold their produce.

E. The backyard poultry farming is a traditional system of rearing poultry with an average flock size fo 5 to 15 native breeds in the free range system. Increased population of India coupled with rising standards of living has increased the demand of nutritious food. The shrinking land resources has drawn the attention of people towards the rearing of birds in the cage system. A programme on " backyard poultry farming in cage system" was implemented in the operational villages of KVK with collaboration of ATMA, Perambalur. Selected farmers have been given one poultry cage with one feeder and drinker which can accommodate 10 no.of desibirds viz. vanaraja. Trainings and demonstration were given on the deworming methods and details of drugs dosage calculation , vaccination methods & schedules and disease management aspects. This helped the farmers to manage and vaccinate their birds by themselves and this helped in cost of rearing of poultry and cost of vaccination and dependence on paravetririnary staff for vaccinates of birds. The rearing of desibird in Cage system also helped the farmers to get supplementary income(through selling of egg and meat) in shortest possible time and it also ensure the nutritional security of their families and also get employment round the year. The high yielding exotic breeds are prone to various emerging diseases. But the backyard poultry birds are almost disease resistant and more economically viable because the desibirds does not require frequent vaccinations and It also survives on locally available feed & household wastage. After seeing the success of rearing of birds in cage system many farmers are being switch over cage system from the conventional system of rearing-free range system. Many farmers in the district started to enquire its availability of cage, advantage of cage system of poultry rearing, birds cost, availability of birds and its management aspects. The mind set of poultry farmers almost got changed from free range system of rearing to cage system of rearing after seeing the success of cage system of rearing. Moreover, the backyard system of poultry rearing is also eco-friendly and also increases the socio-economic status of rural people with very minimum or practically no capital investment.

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
TamilNadu Agricultural University, Coimbatore	Technical consultancy , participation in seminar, technical interaction during formulation of OFT and FLD and SAC .
State Department of Agriculture	Training programmes , joint diagnostic survey, identification of target groups for implementing the KVK activities such as training , OFT, FLD demonstrations , field days , SAC interactions and participation in monthly zonal workshop
State Department of Horticulture	Training programmes , joint diagnostic survey, identification of target groups for implementing the KVK activities such as training , OFT, FLD demonstrations, SAC interactions and field days
Centre for Integrated Pest Management	Training programmes, technical consultancy, SAC interactions
State Department of Animal Husbandry	Animal health camp, technical interaction and SAC interactions
Tamil Nadu Corporation for Development of Women Ltd.,	Vocational trainings to self help group members and SAC interactions
State Department of Sericulture	Technical interaction , participation in seminar, SAC interactions and meetings
National Research Centre for Banana	Technical consultancy , participation in seminar and SAC interactions
Veterinary University Training and Research Centre ,Trichy	Technical consultancy , participation in seminar and technical interaction during formulation of OFT
KVK, Namakkal, Cuddalore, sirugamani, Tindivanam, Karur, Erode, Krishnagiri.	Technical consultancy.
ATMA, Perambalur	Technical guidance, Training, Demo, Farm School, short term research.
DWDA, Perambalur	Watershed Training & Demonstrations.
NABARD, Perambalur	Participation in seminar, SAC interactions and identification of target groups
Community Polytechnic Scheme, Roever Polytechnic, Perambalur	Training to Community Polytechnic Scheme beneficiaries and participation in demonstrations
All India Radio, Trichy	Information broadcasting on KVK events to farmers, technical broadcasting to farmers and SAC interactions
World Vision, NGO, Perambalur	Training programmes, diagnostic survey, meetings, identification of target groups and farmers tour
DMI,NGO, Valikandapuram	Trainings and seminars
Thanthai Hans Roever College, Perambalur	Collaborative training, NSS meetings
A.M.N.T.V (Local T.V.) F.TV	KVK activities telecast
News papers	News coverage on KVK activities, publication of popular articles on agriculture
Integrated Child Development Scheme(ICDS)	Sponsored training, technical consultant
National Horticultural Research and Development Foundation, Coimbatore	Organising seminars, conducting field trials and supply of quality seeds to the farming community
CICR, Coimbatore	Sponsored training and technical consultant, Bt

NCIPM, New Delhi & CCI, Coimbatore	cotton IPM research

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.)
District Watershed Development Agency	30.10.10	Project Officer, District Watershed Development Agency, Perambalur	7,44,660.00
Farmers Field School on cotton	05.10.10	The commissioner of Agriculture, Chennai	85,000.00
Training on skill development	03.03.11	The Manager, National Bank for Agricultural and Rural Development	26,681.00
One village one variety concept scheme	28.07.10	Cotton Corporation of India, Coimbatore	7,00,000.00
National Information System for Pest Management in Bt cotton	01.04.10	Directorate of Cotton Development, Mumbai	5,71,000.00
Package of farm implements in sugarcane cultivation	14.12.10	Agriculture Engineering Department, Perambalur	30,500.00
Establishment of Biocontrol lab	31.03.11	Directorate of Cotton Development, Mumbai (Through the Commissioner of Agriculture, Chennai)	15,00,000.00

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes.

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

Organised a PRA exercise for one AES.

Coordination activities between KVK and ATMA during 2010-11

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	Conduction of ATMA General body meeting	1	--	--
02	Research projects	1) Assessment of suitable groundnut varieties 2) Control of Mealy bug with bioagents	2	1	--
03	Training programmes	--	--	--	--
04	Demonstrations	Promotion of backyard poultry under cage system	1	124	-
05	Extension Programmes				
	Kisan Mela	--	--	--	--

	Technology Week	--	--	--	--
	Exposure visit	Southern state visit Northern State visit	1 1	1 1	20 36
	Exhibition	--	--	--	--
	Soil health camps	--	--	--	--
	Animal Health Campaigns	--	--	--	--
	Others (Pl. specify)	--	--	--	--
06	**Publications**				
	Video Films	--	--	--	--
	Books	--	--	--	--
	Extension Literature	--	--	--	--
	Pamphlets	--	--	--	--
	Others (Pl. specify)	--	--	--	--
07	**Other Activities** (Pl. specify)				
	Watershed approach	--	--	--	--
	Integrated Farm Development	--	--	--	--
	Agri-preneurs development	--	--	--	--

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

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

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

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

12.F. Details of linkage with RKVY - nil

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

12. G Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2010			
May 2010	1	100	• Out of 29551 messages, 10% of the farmers were contact our KVK, and asked about the • More no of farmers were registered for cotton market messages. • Highly useful during heavy rain situation • Most of the Bt cotton and onion growers were come forward to get more technologies • Our district collector, Zonal commissioner, Additional secretary, Govt. of India and Director, DOCD, Mumbai, Joint Director of Agriculture and other Agricultural officers were appreciated the timely information from sowing to market of onion, cotton, paddy and redgram
June 2010	4	1046	
July 2010	8	550	
August 2010	3	1894	
September 2010	0	0	
October 2010	0	0	
November 2010	3386	2126	
December 2010	3461	2135	
January 2011	11672	7381	
February 2011	9444	5979	
March 2011	1572	1064	
Total	29551	22275	

PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1.	Goat farm	2007	51.5 7 m^2	Tellicherry goat	Breeding kids	27 kids		54000.00	
2.	Precision farming	2007	1.25 ac	Small onion	bulb	3600 kgs	15800.00	36000.00	Under onion cultivation
3.	Shade net	2007	263 m^2	Commercial varieties	Orchard, Ornamental and Forest	11688 Nos.	92000.00	2,29,995.00	Stock value of the plant – 85,409
4.	Poly house	2007	81.1 4 m^2	All seedlings	Fruits and Ornamental plants	7851 Nos.	-	-	Hardenin g purpose
5.	Sericulture	2007	138 m^2	V1	Cacoon				
6.	Mushroom	2007	49 m^2	Milk mushroom	Mushroom				
7.	Home care products	2007	120 m^2	-	Phenoyle Bleaching powder Cleaning powder Acid	9500 lits 5250 kgs 8700 kgs 2200 lits	1,80,500.00 94,500.00 69,600.00 46,200.00	2,37,500.00 1,31,250.00 1,04,400.00 52,800.00	Being provided to the school and colleges

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Paddy	10.07.2010	22.12.2010	0.2	TRY 1	Grains	1120 kgs	11,900.00	13,440.00	
Maize	21.10.2010	10.01.2011	2.0	NK 6240	Grains	6800 kgs	42,700.00	65,280.00	

Maize	05.04.2010	29.07.2010	0.8	NK 6240	Grains	2900 kgs	14,500.00	23,200.00	
Pulses									
Red gram	14.09.2010	26.03.2011	0.2	Bangalore 1	Kernel	150 kgs	7,000.00	9,750.00	
Black gram	13.02.2011	-	0.4	-	Kernel	-	-	-	Standing crop
Oilseeds									
Gingelly	22.02.2011	-	0.4	-	Seeds	-	-	-	Standing crop
Fibers									
Cotton	05.08.2010	14.12.2010	2.0	MRC7918	Lint	2700 kgs	97,850.00	1,62,000.00	
Spices & Plantation crops									
Coconut	05.08.2007	-	2.0	East Coast Tall	-	-	-	-	Standing crop
Coconut	05.08.2007	-	0.2	T x D	-	-	-	-	Standing crop
Coconut	05.08.2007	-	0.6	Malayan Dwarf Yellow	-	-	-	-	Standing crop
Floriculture									
Fruits									
Sapota	05.08.2007	-	0.2	Cricket ball, Oval & PKM 1	Fruit	-	-	-	Standing crop
Mango intercrop with Lemon	10.10.2008	-	0.4	Neelam, Banganapalli, Senthura and Lemon, PKM 1 & Andhra Variety	Fruit	-	-	-	Standing crop
Vegetables									
Tapioca	07.04.2010	02.03.2011	0.8	White Rose	Tuber	20000 kgs	68,000.00	80,000.00	
Bhendi	07.04.2010	22.05.2010	0.4	Rasi Rasi seeds	Fruit	2800 kgs	15300.00	28000.00	
Small onion	31.05.2010	12.08.2010	1.6	Co 4	Bulb	9375 kgs	48,650.00	75,000.00	

Bhendi	09.08.2010	17.10.2010	0.2	Rasi seeds	Fruit	1300 kgs	9,300.00	13,000.00	
Chillies	09.08.2010	16.10.2010	0.2	KKM 1	Fruit	1800 kgs	12,400.00	18,000.00	
Bhendi	13.02.2011	28.03.2011	0.2	Mahico	Fruit	1200 kgs	8,750.00	12,000.00	
Moringa	20.10.2010	-	0.4	PKM 1	Fruit	-	-	-	Standing crop
Small onion	19.03.2011	-	0.4	Co 4	Bulb	-	-	-	Standing crop
Bottle gourd	09.08.2010	21.09.2010	0.2	Ankur	Fruit	2000 kgs		8000.00	
Pumpkin	09.08.2010	21.09.2010	0.2	Mahico	Fruit	2000 kgs		6000.00	
Ash gourd	09.08.2010	21.09.2010	0.2	Mahico	Fruit	800 kgs		4800.00	
Snake gourd	09.08.2010	21.09.2010	0.2	Rasi	Fruit	1800 kgs		5400.00	
Bitter groud	09.08.2010	21.09.2010	0.2	Mahico	Fruit	800 kgs		6400.00	
Fodder Crops									
Desmanthus	13.02.2009	-	0.2	Local	Leaves & Seeds	35 kg seeds	-	14000.00	For our goat unit
Cumbu Napiar	02.07.2008	-	0.4	Co 4	Leaves & Seeds	1,76,980 setts	-	35396.00	For our goat unit
Fodder Cowpea	19.10.2010	30.01.2011	0.1	Co FC 8	Leaves & Seeds	14 kg seeds	-	1400.00	For our goat unit
Fodder Sorghum	10.08.2008	-	0.2	Co FS 29	Leaves & Seeds	3 kg seeds	-	1200.00	For our goat unit

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

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1.	**Goat**	**Tellicherry**	**Male kid**	**9 Nos.**	**8250/-**	**16950/ -**	Stock of Goat : 63[Incl. of Adult Male :5 Adult Female :30 Male kids :20 Female Kids 8]

13.E. Utilization of hostel facilities

Accommodation available (No. of beds) -25

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 010	-	-	-
May 010	-	-	-
June 010	-	-	-
July 010	-	-	-
August 010	300	600	-
September 010	50	100	-
October 010	-	-	-
November '010	-	-	-
December 010	29	7	-
January 011	-	-	-
February 011	-	-	-
March 011	12	90	-

13.F. Database management – Nil

S. No	Database target	Database created

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
10,00,000	10,00,000	Construction of Stone gully plugs, Construction of Loose Rock Check dams, Construction of Gabion Check dam, Construction of Masonary check dam, Channel Training & desilting, Establishing Farm – pond & outlet, Formation of Percolation pond, CCT – Continuous Contour Trenches, WAT – Water Absorption Trenches, Field Bunds, Stone Bunds, Agro Forestry, Dryland Horticulture, Fodder cultivation, Micro irrigation system – Sprinkler, Micro irrigation system – Drip & Installation of Rain Gun	6	2	10598	300	47	73.94 Lakh Litres	14.3 ha.

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	-	-	-	-	-	-	-
With KVK	State Bank of India	Perambalur	00796	KVK Regular account	11085357213	621002002	SBI N 0000796
Revolving fund	State Bank of India	Perambalur	00796	KVK Revolving fund	11085357224		
FLD oilseeds and pulses	State Bank of India	Perambalur	00796	KVK FLD oilseeds and pulses	11085360622		
FLD cotton	State Bank of India	Perambalur	00796	KVK FLD cotton	11085364231		

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

S. No	Items / Head	Opening balance if any	Remittance by ZPD VIII Bangalore	Actual expenditure dubitable to Council A/C	Closing balance if any	Remarks
1	**Production Technology – 50 ha**					
	a. Essential inputs	0.00	0.00	0.70	0.00	
	b. POL, hiring vehicle, Kisan melas, printed materials, reports, demonstration boards	0.00	0.00	0.30	0.00	
	Total	**0.00**	**0.00**	**1.00**	**0.00**	
2.	**Farm Implements – 75 ha**					
	a. New equipments	0.00	0.00	0.00	0.00	
	b. Contingencies	0.00	0.00	0.00	0.00	
	Total	**0.00**	**0.00**	**0.00**	**0.00**	

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	45.00	45.00	43.13
	Pay and Allownaces (6th CPC arears from 01.01.2006 – 30.03.2011)	52.46	52.46	52.46
2	**Traveling allowances**	1.25	1.25	1.25
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	2.50	2.50	2.50
B	POL, repair of vehicles, tractor and equipments	2.20	2.20	2.20
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1.10	1.10	1.10
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.70	0.70	0.70
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	1.95	1.95	1.95
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.90	0.90	0.90
G	Training of extension functionaries	0.35	0.35	0.35
H	Maintenance of buildings	0.60	0.60	0.60
I	Extension activities	0.40	0.40	0.40
J	Farmers Field School	0.25	0.25	0.25
K	Establishment of Soil, Plant & Water Testing Laboratory	0.00	0.00	0.00
L	Library	0.05	0.05	0.05
	TOTAL (A)	**109.71**	**109.71**	**107.84**
B. Non-Recurring Contingencies				
1	**Works**	9.0	9.0	9.0
2	**Equipments and furnitures**	20.40	20.40	20.40
3	**Vehicle** (Four wheeler/Two wheeler, please specify)	0.00	0.00	0.00
4	**Library** (Purchase of assets like books & journals)	0.10	0.10	0.10
TOTAL (B)		**29.50**	**29.50**	**29.50**
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		**139.21**	**139.21**	**137.34**

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	4.29	8.28	11.75	0.82
April 2009 to March 2010	0.82	11.18	10.94	1.06
April 2010 to March 2011	1.06	11.83	11.74	1.15

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
Mr. C. Sankar	SMS(Plant protection)	Training on IPDM strategies for hi-value crops' at TamilNadu Agricultural University, Coimbatore	TNAU, Coimbatore	24.03.2011-25.03.2011
		Mass Production of Papaya Mealy bug parasitoid	NBAII, Hebbal, Bangalore.	01.11.2010 to 02.11.2010
Mrs. P. Vijayalakshmi	SMS(HomeScience)	Training on Strengthening Gender Perspective in Agricultural Research and Extension	TANUVAS, Chennai	24.01.2011 & 25.01.2011
		Training on Recent trends in Post Harvest Technology at Indian Institute of Crop Processing Technology, Pudukottai Road, Thanjavur	TNAU, Coimbatore	23.03.2011-25.03.2011
Mr. J. Kathiravan	SMS(Horticulture)	Swadesh prem jagriti sangosthi	University of Horticultural Science, Bagalghot	28.05.2010-30.05.2010
		Banana field day – IPM on banana	NRCB, Trichirappalli	21.08.2010
		Awareness campaign on biotech crops for extension personnel and scientists	KVK, Trichirappalli	24.08.2010
		Plant Biodiversity in ornamental and landscape gardening	TNAU, Coimbatore	26.11.2010-28.11.2010
		Protected cultivation of horticultural crops	TNAU, Coimbatore	28.03.2011-29.03.2011

Mr. J. Krishnan	**SMS(Agrl.Extn)**	Integrated Farming System for sustainable farming	KVK, Kattuppakkam	
		Alternate Poultry Farming as a livelihood option for farming community	KVK, Namakkal	24.11.2010 to 20.11.2010
Dr. P. Sivakumar	**SMS (Animal Science)**	Augmenting outreach programs in Animal Husbandry and Fisheries activities	KVFASU, Bidar	06 & 07.08.2010
		Alternate Poultry Farming as a livelihood option for farming community	KVK, Namakkal	24.11.2010 to 20.11.2010
Mr. V. Karuppasamy	**Farm Manager**	Plant Biodiversity in ornamental and landscape gardening	TNAU, Coimbatore	26.11.2010-28.11.2010
Mr. N. Satishkumar	**Lab Technician**	National level cotton INM training	TNAU, Coimbatore	17.03.2010-19.03.2010
Mrs. R. Vidhya	**Computer Programmer**	Training on Data base management, web content and web hosting developmentat TamilNadu Agricultural University, Coimbatore	TNAU, Coimbatore	29.03.2011-31.03.2011

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

SUMMARY FOR 2010-11

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Integrated Nutrient Management			
Varietal Evaluation	Brinjal	Assessing the performance of brinjal hybrids	10
	Chilli	Assessment of performance of chilli varieties(09-10)	5
	Tomato	Assessment of suitable variety for value addition	5
Integrated Pest Management			
Integrated Crop Management	Yam	Weed management in yam through intercropping	5
	Redgram	Assessment of planting methods in redgram	5
Integrated Disease Management	Paddy	Assessment of suitable technology for management of false smut in paddy	10
Small Scale Income Generation Enterprises			
Integrated Farming System			
Value addition			
Drudgery Reduction			
Storage Technique			
Drought management	Bittergourd	Water stress management in bittergourd	5
Total			**45**

Summary of technologies assessed under livestock

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials
Evaluation of breeds			
Nutrition management	Dairy farming	Area specific mineral mixture for dairy cows (under progress)	1
Disease management	Poultry	Control of Ranikhet disease in desichicken (under progress)	1
		Management of Ranikhet disease in desibirds	1
Value addition			
Production and management	Dairy Farming	Management of Post partum Anestrum management in cross breed dairy cows	1
Feed and fodder			
Small scale income generating enterprises			
Total			**4**

Summary of technologies assessed under various enterprises - Nil

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

Summary of technologies assessed under home science -Nil

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

II. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops - Nil

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

Summary of technologies assessed under refinement of various livestock - Nil

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 - Nil

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

Summary of technologies refined under home science - Nil

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		❖ Popularization of Long staple MRC 7918 BGII Bt. ❖ Seed treatment with *Azospirillum* and *phosphobacteria* @ 3 pkts each and soil application of *Azospirillum* and *phosphobacteria* @ 10 pkts each /ha enrichment with FYM. ❖ STL based fertilizer application ❖ Application of micronutrient mixture 12.5 kg /ha as basal ❖ Maintaining optimum plant population ❖ Spraying of KNO_3 2% at 40 and 70 DAS ❖ Foliar spray of TNAU Cotton Plus @ 2.5kg/acre at flower and boll formation stage. ❖ Spraying of growth hormone NAA 40 ppm (Planofix @ 4 ml in 4.5 lit of water) at 45 and 60 DAS ❖ Spraying of NSKE 5% (25 kg of NSKE + 500 gram of kadhi soap) followed by Imidacloprid 70WS @ 7.5 ml / 10 lit of water during pest incidence at two times. ❖ Setting up of yellow sticky trap @ 12 nos / ha ❖ Release of mealy bug parasitoids *Anagyrus Locki, Pseudoleptimestrix, maxicana Acerophagus papayae* @ 100 nos each ❖ Above ETL Foliar spraying of Profinophos @ 2 ml / lit of water 2 times during mealy bug incidence. ❖ Nipping at 18-21th Node.	1	50	20	26.11	18.28	42.84	64262.50	200942.56	136680.06	3.12	55000.00	140682.88	85682.88	2.36
Total																

Other crops

Crop	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	Area (ha)	Yield (q/ha)		% change in yield	Other parameters		*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Cereals																		
		BPH management in paddy	1	10	5	49.17	45.00	47.03	38.12	31.57	7,577.50	30,569.50	22,992.00	2.25	10,000.54	24,778.00	14,777.46	1.65
Millets																		
Oilseeds																		
Pulses																		
	Scientific feeding management	Popularization of new improved fodder cowpea	1	12	1	164.2	143.2	155.9	120.6	29.27	60816	31180	20364	2.88	10868	24120	14252	2.21
Vegetables		ICM in chillies	**1**	10	2	27.2	25.3	26.3	21.8	20.64	51,456.00	1,18,350.00	66,894.00	2.30	46,941.00	98,100.00	51,159.00	2.08
		Cultivation of multiplier onion through seeds	**1**	10	5	170.75	146.25	159.38	105.08	51.67	45,207.00	1,27,504.00	82,297.00	2.82	38574.00	84064.00	45490.00	2.18
		ICM in small onion	**1**	20	4	142	120	132.95	105.7	25.78	40093.00	106360.00	66267.00	2.65	38883.00	84560.00	45677.00	2.17
Flowers																		
Ornamental																		
Fruit																		
		Fruit drop management in acidlime	**1**	10	5	23.33	19.28	21.63	17.44	24.03	22,793.00	54075.00	31282.00	2.37	21713.00	43600.00	21887.00	2.01
Spices and condiments																		
Commercial																		
Medicinal and aromatic																		
Fodder																		
		Fodder bank (Cereal + pulse crop)	**1**	10	1.0	3900 3400 195 1180	3350 2810 126 1018	3625 3105 160.5 1099	Sorghum Co27 390 --	-	38500	230625	192125	5.9	12100	39000	26900	3.22
Plantation																		
Fibre																		
Others (pl.specify)																		

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																		
Poultry																		
	Popularization of new variety	Popularization of new variety Beltsville small white	1	20	200 birds	8.7	8.0	8.32	4.15	100.48	400	1305	905	1:3.2	475	900	425	1:1.89
	Popularization of new variety	Popularization of new variety – Rhodo white	1	10	200 birds	3.2	2.9	3.04	2.15	41.39	65	150	85	1:2.30	55	95	40	1:1.72
Rabbitry																		
Pigerry																		
Sheep and goat	Nutrient management	Deworming and supplementation of vitamins and minerals	1	10	150	26	21	23.8	19	25.26	2000	3500	1500	1:1.75	2100	3000	900	1:1.42
	Popularization of new variety	Popularization of salt lick mineral cake	1	10	100	26	21	23.15	16.5	40.30	2000	3600	1600	1:1.8	2100	2900	800	1:1.30
Duckery																		
Others (pl.specify)																		
		Total																

Fisheries - nil

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																

Other enterprises -Nil

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																	

Women empowerment - Nil

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

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		Demo	Local		Saving in labour	Demo	Local	Saving in cost (Rs.)	
CRIDA groundnut pod stripper	Groundnut	Separating the groundnut pods by using groun dnut stripper	1	20	10	16	9	77	14	34		20	1260	3060	1800	
Modified Coconut climber	Coconut	Climbing coconut trees with modified coconut climber	1	5	5	11.92	18.70	-	-	-	-	-	-	-	-	-
Mini portable sprinkler	Groundnut, Onion, Maize	Mini portable sprinkler	1	38	15	Under Progress										
Popularization of incubator	Poultry	Popularization of incubator	1	1	50	Hatchability: Demo 92.5, Checch 79; % increase 17.08		-	-	-	-	-	-	-	-	-

Feed mixing unit	Dairy cows	Preparation of low cost concentrate feed for dairy cows	1	10	1	Milk Yield (Litre /cow)		% of increase	-	-	-	-	-	-	15	4	11 /cow	
						14.5	8.2	43.4										

Name of the implement	Cost of the implement in Rs.	Name of the technology demonstrated	No. of Demo	Area covered under demo in ha	Labour requirement in Mandays		% save	Savings in labour (Rs./ha)	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
					Demo	Check			Gross cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
	30,000				14.00	34.00	58.8	1620	28,760	36,720	7,780	1.28	30,560	36,720	6,160	1.20
	5500				66.96	71.20	20	2848	59,504	1,60,200	1,00,696	2.69	62,145	1,60,200	98,055	2.58
	30000				Trial under progress											
	30000				Hatchability %		% of increase	NA	1200	3400	2200	2.83	1400	1600	200	1.14
					Demo	Check										
					92.5	79	17.08									
	25000				Milk Yield (lt / cow) %		% of increase	NA	1400	4300	2900	1:3.07	1200	2800	1600	1:2.33
					Demo	Check										
					14.5	8.2	43.4									

Other enterprises

Demonstration details on crop hybrids - Nil

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										
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										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management	2	46	1	47	11	0	11	57	1	58
Soil and Water Conservation										
Production of organic inputs										
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables	1	18	0	18	2	0	2	20	0	20
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										

Others (pl.specify)										
Integrated crop management	4	96	12	108	7	0	7	103	12	115
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										

Production and Management technology										
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management										
Production and use of organic inputs	2	86	4	90	4	0	4	90	4	94
Management of Problematic soils										
Micro nutrient deficiency in crops	2	22	4	26	6	4	10	28	8	36
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
Livestock Production and Management										
Dairy Management	1	0	11	11	0	9	9	0	20	20
Poultry Management	1	0	15	15	0	0	0	0	15	15
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	20	6	26	9	2	11	29	8	37
Animal Disease Management	1	0	8	8	0	12	12	0	20	20
Feed and Fodder technology										

Production of quality animal products										
Others Scientific Management in Goat farming	1	4	12	16	0	11	11	4	23	27
Integrated Farming System	1	8	1	9	1	0	1	9	1	10
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	23	23	0	2	2	0	25	25
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	3	0	70	70	0	19	19	0	89	89
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										
Plant Protection										

Integrated Pest Management	7	160	10	170	38	2	40	198	12	210
Integrated Disease Management	2	40	0	40	13	1	14	53	1	54
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										

Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
Apiculture										
Others (pl.specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**30**	**500**	**177**	**677**	**91**	**62**	**153**	**591**	**239**	**830**

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										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production	1	11	0	11	0	0	0	11	0	11
Nursery management										
Integrated Crop Management	6	97	16	113	4	0	4	101	16	117
Soil and Water Conservation										
Integrated Nutrient Management	3	33	9	42	2	0	2	35	9	44
Production of organic inputs										
Others (pl.specify)										
Role of bioagents in plant protection aspects	1	16	6	22	0	0	0	16	6	22
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising	2	35	1	36	1	0	1	36	1	37
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										

Others (pl.specify)										
Integrated crop m anagement	7	150	6	156	13	0	13	163	6	169
Drought management	1	18	0	18	2	0	2	20	2	20
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										

f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management	3	51	5	56	4	0	4	55	5	60
	10	166	46	212	8	5	13	174	51	225
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing	1	20	0	20	0	0	0	20	0	20
Others (pl.specify)										
ICM in groundnut and cowpea	2	40	3	43	4	1	5	44	4	48
ICM in chillies	1	18	1	19	2	0	2	20	1	21
Intercropping in yam	1	16	6	22	0	0	0	16	6	22
Livestock Production and Management										
Dairy Management	1	4	6	10	8	7	15	12	13	25
Poultry Management	2	22	5	27	4	3	7	26	8	34

Piggery Management										
Rabbit Management										
Animal Nutrition Management	2	30	3	33	14	3	17	44	6	50
Animal Disease Management	1	13	0	13	2	0	2	15	0	15
Feed and Fodder technology	1	10	7	17	2	1	3	12	8	20
Production of quality animal products										
Others Poultry Disease Management	2	7	15	22	1	5	6	8	20	28
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet	1	0	15	15	0	3	3	0	18	18
Minimization of nutrient loss in processing										
Processing and cooking	2	5	15	20	1	12	13	6	27	33
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	2	12	14	1	3	4	3	15	18
Women empowerment										
Location specific drudgery production	4	48	1	49	5	2	7	53	3	56
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										

Small scale processing and value addition										
Post Harvest Technology	1	16	2	18	2	0	2	18	2	20
Others (pl.specify)										
Drudgery reduction (Coconut Climber)	1	20	2	22	2	0	2	22	2	24
Plant Protection										
Integrated Pest Management	4	103	16	119	13	3	16	116	19	135
Integrated Disease Management	3	46	8	54	3	1	4	49	9	58
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
IPM & IDM	2	57	0	57	7	0	7	64	0	64
Agro Ecological Situation Analysis in groundnut	2	29	8	37	0	0	0	29	8	37
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										
FFS – groundnut introductory meet	1	9	5	14	0	0	0	9	5	14

Ex-trainees meet at puthuviralipatti	1	11	1	12	0	0	0	11	1	12
Participatory Rural Appraisal at Nallur	1	14	0	14	4	0	4	18	0	18
Participatory Rural Appraisal at Chathiramanai	1	14	0	14	0	0	0	14	0	14
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
Apiculture										
Others (pl.specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										

Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	**72**	**1131**	**220**	**1351**	**109**	**49**	**158**	**1240**	**269**	**1509**

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										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition	1	0	23	23	1	10	11	1	33	34
Small scale processing	1	0	7	7	0	22	22	0	29	29
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										

Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
Information and communication technology	2	0	18	18	14	56	70	14	74	88
Composting techniques	1	6	22	28	0	0	0	6	22	28
Importance of soil and water testing and sampling	1	0	22	22	9	0	9	9	22	31
TOTAL	**6**	**6**	**92**	**98**	**24**	**88**	**112**	**30**	**180**	**210**

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

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										
Training and pruning of orchards										
Protected cultivation of vegetable crops										

Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										

Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
TOTAL										

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	1	18	20	38	9	2	11	27	22	49
Integrated Pest Management	3	43	32	75	33	5	38	76	37	113
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	1	0	19	19	0	7	7	0	26	26
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										

Household food security										
Any other (pl.specify)										
Productivity enhancement in horticultural crops	4	29	14	43	35	0	35	64	14	78
Concept of approaches of watershed, PRA and preparation of DPR, utility of GPRS	1	5	2	7	8	0	8	13	2	15
Techniques for water stress management	2	32	22	54	38	2	40	70	24	94
Total	**12**	**127**	**109**	**236**	**123**	**16**	**139**	**250**	**125**	**375**

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

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										
Integrated Pest Management										
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										
Household food security										
Any other (pl.specify)										
Total										

Sponsored training programmes

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**										
1.a.	Increasing production and productivity of crops										
1.b.	Commercial production of vegetables										
2	**Production and value addition**										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops										
3.	**Soil health and fertility management**										
4	**Production of Inputs at site**										
5	**Methods of protective cultivation**										
6	**Others (pl.specify)**										
7	**Post harvest technology and value addition**										
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
8	**Farm machinery**										
8.a.	Farm machinery, tools and implements	1	15	4	19	1	0	1	16	4	20
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	**1**	**0**	**17**	**17**	**0**	**13**	**13**	**0**	**30**	**30**
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)										
	Watershed management	6	112	86	198	59	43	102	171	129	300
	Total	**7**	**112**	**103**	**215**	**59**	**56**	**115**	**171**	**159**	**330**

Details of sponsoring agencies involved

1. National Agricultural Bank for Agricultural Rural Development
2. Community polytechnic scheme
3. Department of Agricultural Engineering, Perambalur
4. District Watershed Development Agency, Perambalur

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

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**										
1.a.	Commercial floriculture										
1.b.	Commercial fruit production										
1.c.	Commercial vegetable production										
1.d.	Integrated crop management										
1.e.	Organic farming										
1.f.	Others (pl.specify)										
2	**Post harvest technology and value addition**										
2.a.	Value addition										
2.b.	Others (pl.specify)										
3.	**Livestock and fisheries**										
3.a.	Dairy farming										
3.b.	Composite fish culture										
3.c.	Sheep and goat rearing										
3.d.	Piggery										
3.e.	Poultry farming										
3.f.	Others (pl.specify)										
4.	**Income generation activities**										
4.a.	Vermi-composting										
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery and implements										
4.d.	Rural Crafts	1	0	3	3	0	9	9	0	12	12
4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation										
4.h.	Nursery, grafting etc.										
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	**1**	**0**	**3**	**3**	**0**	**9**	**9**	**0**	**12**	**12**

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	19	354	97	451	0	0	0	17	14	28
Kisan Mela	0									
Kisan Ghosthi	0									
Exhibition	4	2000 farmers						200 extn functionaries		
Film Show	5	111	91	202	0	0	0	17	0	17
Method Demonstrations	35	1275	205	1481	0	0	0	0	3	3
Farmers Seminar	0	0								
Workshop	0	0								
Group meetings	29	239	74	313	0	0	0	27	5	32
Lectures delivered as resource persons	8	649	342	991	0	0	0	88	25	113
Newspaper coverage	60	Mass								
Radio talks	6	Mass								
Radio announcement	6	Mass								
TV talks	1	Mass								
Popular articles	24	Mass								
Extension Literature	93	423	359	782	0	0	0	48	18	66
Advisory Services	125	289	145	434	0	0	0	14	1	15
Scientific visit to farmers field	3	0	0	0	0	0	0	22	0	22
Farmers visit to KVK		342	80	422	0	0	0	69	59	128
Diagnostic visits	23	108	12	120	0	0	0	0	0	0
Exposure visits	11	163	121	284	0	0	0	85	52	137
Ex-trainees Sammelan	1	18	2	20	0	0	0	0	0	0
Soil health Camp	5	93	47	140	0	0	0	0	0	0
Animal Health Camp	3	195	83	278	0	0	0	0	0	0
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0
Agricultural camp	1	32	14	46	0	0	0	16	8	24
Soil test campaigns	6	102	21	123	0	0	0	0	0	0
Farm Science Club Conveners meet	1	11	9	20	0	0	0	0	0	0
Self Help Group Conveners meetings										
Mahila Mandals Conveners meetings										
Celebration of important days (specify)										
Ozone day	1	0	36	36	0	0	0	0	2	2
Women's day	1	0	112	112	0	0	0	0	2	2
Any Other (Specify)										
Field visit	45	135	26	161	0	0	0	4	0	4
Clinic day	1	7	2	9	0	0	0	0	0	0
SMS Alert messages	29551	14391	104	14495	0	0	0	3226	310	3536
Publication										

V. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	125	434	15	449
Diagnostic visits	23	120	0	120
Field Day	19	451	31	482
Group discussions	29	313	32	345
Kisan Ghosthi	-	-	-	-
Film Show	5	202	17	219
Self -help groups	2	39	0	39
Kisan Mela	-	-	-	-
Exhibition	4	2000	200	2200
Scientists' visit to farmers field	3	0	22	22
Plant/animal health camps	4	324	24	348
Farm Science Club	1	20	0	20
Ex-trainees Sammelan	1	20	0	20
Farmers' seminar/workshop	0	0	0	0
Method Demonstrations	35	1480	3	1483
Celebration of important days	2	148	4	152
Special day celebration	0	0	0	0
Exposure visits	11	284	137	421
Others (pl.specify) Soil Health camp	5	140	0	140
Field visit	45	161	4	165
Farmers visit to KVK		422	127	549
Clinic Day	1	7	2	9
SMS Alert / Messages	11	14495	3536	18031
Total		**21060**	**4154**	**25214**

Details of other extension programmes

Particulars	Number
Electronic Media	0
Extension Literature	848
News Letter	4
News paper coverage	60
Technical Articles	1
Technical Bulletins	0

Technical Reports	0
Radio Talks	6
Radio Announcement	6
TV Talks	1
Animal health amps (Number of animals treated)	
Others (pl.specify) Popular Article	21
Leaflet	4 (4000 copies)
Book	1 (500 copy)
Total	**5947**

VI. PRODUCTION OF SEED/PLANTING MATERIAL

Production of seeds by KVKs

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Paddy	TRY 1		11.20	13440.00	4
Oilseeds						
Pulses						
Commercial crops						
Vegetables	Bhendi	Arkka Anamika		0.03	900.00	8
	Small Onion	Co 4		9.93	15888.00	2
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops	Cotton	MRC 7918		0.009	1500.00	2
Forest Species						
Fodder crops	Fodder Cowpea	Co FC 8		0.14	1400	7
	Fodder Sorghum	Co FS 29		0.03	1200	3
	Desmanthus	Local		0.24	9,600.00	32
Total				**21.57 qtl**	**43928.00**	**58**

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				3	45	1
Vegetable seedlings						
	Curry leaf	Sengampoo		8	40	4
Fruits	Acid lime	Budded Plant		32	2560	18
		Andhra				
	Amla	NA-7		60	1800	44
		BSR 1				
	Guava	L-49		178	3560	30
		Seedless red				
	Jack	PLR1		80	1500	33
	Mango	Banganapalli		50	400	20
		Bangalora		10	300	4
		Imanprasad				
		Baneshan				
		Mallika				
		Neelam		125	5000	70
		Senthura				
		Local				
	Pomagranate	Red				
		Ganesh		135	3375	65
	Sapota	PKM 1		160	1400	40
		PKM 4		20	800	18
	Custered Apple	APK 1				
	Sathugudi	local		20	1600	7
	Grapes	Bangalore blue				

	Jamun	Graft		54	2700	6
	Singapore Cherry			35	1800	6
Ornamental plants						
	Acalypha			74	740	62
	Alamanda			102	1530	80
	Aglonema			14	140	10
	Cordiline			14	175	10
	Crotons	Big				
		Small				
	Anthimantharai					
	Aralia					
	Alphenea			7	375	2
	Adenium			7	175	5
	Areaca palm			138	6900	98
	Bismarlia			10	250	4
	Bohainvillae			8	80	2
	Caladium			24	740	10
	Clitoria					
	Coleus					
	Cerysanthemum			8	160	3
	Crosantra			51	510	43
	Cuffea			7	105	3
	Cycas			2	500	1
	cordeline			14	280	4
	Cyclone gold			11	220	5
	Diffenpakia			43	860	30
	Dresseena			17	170	12
	Duranta			943	4715	275
	Delonix			106	1590	99
	Crotons red			15	300	8
	Eranthimum			2	20	1
	Euphorpia			21	315	16

	Fish tail palm			5	350	2
	Grass	Koriyan		1662	24930	140
				30	300	10
	Hibiscus			103	1160	78
	Hemilanthus			10	150	6
	Irissine			35	175	23
	Ixora	Mini		454	9080	308
	Jashmine			330	3300	198
	Koriasis			132	1320	78
	Lantana					
	Canna			2	50	1
	Money plant			15	150	8
	Nanthiyavattai			302	3020	187
	Neerium			5	50	2
				150	2250	123
	Ophiopiogen			10	150	4
	Peltophorum			33	495	24
	Pothos					
	Pritcharida palm					
\	Perewinkle			5	50	3
	Porthlea			30	150	26
	Purple heart			11	55	4
	Evy creeper					
	Rayal palm			98	3220	67
				75	7500	45
	Rusalia			1	20	1
	Riodiscolor			37	370	24
	Rose	Edward		225	4500	209
		Local		50	500	42
				2	600	1
	Nictantihis					

	Singonium					
	Techoma			183	2745	126
	Thazhampoo			2	40	2
	Thuja			76	1900	75
	Tabernae			18	270	13
	Verbina			20	200	15
	X-mas tree	Big				
		Small		50	3000	38
	Bohinia					
	{edilanthus					
	Perilinkile					
	Thuja sp					
	Russalia					
	Nanthiya vattai	Miniature				
	Agave					
	Agave americana					
	Cesalpiniya					
	Setcriita					
	Musanta					
Medicinal and Aromatic						
Plantation						
	Coconut	TxD				
		Tall		1400	3500	906
		Dwarf		122	18300	93
		MDY Red		2	150	1
		MDY		57	4275	41
		MDR		34	2550	30
Spices	Tamarind	:Local		60	1200	45
	Tamarind	Graft		25	750	20
Tuber						
Fodder crop saplings						
	Cumbu Napiar	Co 4				

	Mulberry Plants	V 1				
Forest Species						
	Almond	Indian		147	2205	127
	Cassia					
	Delonix					
	Polyalithya			100	1200	68
	Poovarasu			6	60	3
	Pungan			290	1450	215
	Teak (Small)					
	Teak (Big)			700	8400	450
	Feltoporam					
	Neem			310	3100	278
	Rhodotendran					
	Asparagus					
	Bamboo			130	1560	111
	bale			20	300	7
	Red sandal			10	100	7
	Iluppai			5	50	2
	Hill Neem			27	405	9
	Vengai			50	500	5
	Mahahani			50	750	47
	Rosewood			50	750	40
	Kumil Teak			160	2400	98
	Sisu			50	500	25
	Fig			4	40	1
	Karungali			10	100	5
	Vila			10	100	2
Fodder crops	Cumbu Napiar	Co 4		1,76,980 setts	35,396.00	80
	Mulberry	V1		250 setts	500.00	2
	Glyricidia	Local		50 setts	100.00	2
Total				**187878**	**210471.00**	**5752**

Production of Bio-Products -Nil

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				

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)				
Goat	Tellicherry goat	9 kids	16950.00	6
Total		9 kids	16950.00	6

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

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	365	192	57	12500.00
Water	34	27	18	1130.00
Plant	0	0	0	0
Manure	0	0	0	0
Others (pl.specify)	**0**	**0**	**0**	**0**
Total	**399**	**219**	**75**	**13630.00**

VIII. SCIENTIFIC ADVISORY COMMITTEE

Number of SACs conducted
1

IX. NEWSLETTER

Number of issues of newsletter published
4

X. RESEARCH PAPER PUBLISHED

Number of research paper published
1

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

Activities conducted				
No. of Training programmes	**No. of Demonstrations**	**No. of plant materials produced**	**Visit by farmers (No.)**	**Visit by officials (No.)**
6	2	10598	300	47

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