ANNUAL REPORT 2015 - 16

FOR THE PERIOD

APRIL 2015 to MARCH 2016

ICAR – KRISHI VIGYAN KENDRA
Hosted by SCAD
Tuticorin District, Tamilnadu

Content of the Page

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		
ICAR KVK Hosted by SCAD, Vagaikulam, Mudivaithanendal Post, Tuticorin	0461-2269306	0461-2269306	pcscadkvk@gmail.com	www.scadkvk.org

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

Address	Telephone		E mail	Web Address
	Office	Fax		
Social Change and Development (SCAD) 105A1, North Bye pass road, Vannarpettai, Tirunelveli - 3	0462-2501008	0462-2501007	scb_scad@yahoo.com	www.scad.org.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. V. Srinivasan	-	9942978486	srinitutkvk@gmail.com

1.4. Year of sanction: 1995

1.5. Staff Position (as 31st March 2016)

Sl. No	Sanctioned post	Name of the incumbent	Designation	M /F	Discipline	Highest Qualification	Pay Scale	Basic pay	Date of joining KVK	Permanent/Temporary	Category (SC/ST/ OBC/ Others)
1	**Programme Coordinator**	**Vacant**									
2	SMS & Programme Coordinator i/c	Dr.V.Srinivasan	SMS	M	Animal science	M.V.Sc., (Vet. medicine)	15600-39100 +5400	26010	8.7.1999	P	Others
3	SMS	S. Sumathi	SMS	F	Home science	M.Sc., (H.Sc.Ext.,)	15600-39100 +5400	25340	1.12.2000	P	OBC
4	SMS	P.Velmurugan	SMS	M	Horticulture	M.Sc., (Horticulture)	15600-39100 +5400	23760	30.1.2001	P	SC
5	**SMS**	**Vacant**									
6	SMS	A. Murugan	SMS	M	Agronomy	M.Sc., (Ag) (Agronomy)	15600-39100 +5400	18240	18.07.2011	P	SC
7	**SMS**	**Vacant**									
8	Programme Assistant	I. Jeyakumar	Lab. technicien	M	Lab Assistant	M.Sc (Microbiology)	9300-34800 +4200	10130	12.07.2013	P	Others
9	Programme Assistant	J. Jove	Computer	M	Computer science	M.C.A	9300-34800 +4200	12050	01.04.2011	P	OBC
10	Programme Assistant	K.Damodaran	Farm Manager	M	Agriculture	B.Sc.,(Agri)	9300-34800 +4200	13050	31.8.2009	P	OBC
11	Assistant	S.S. Ganesan	Accountant	M	-	M.Com	9300-34800 +4200	19870	1.6.1996	P	Others
12	**Stenographer**	**Vacant**									
13	Driver 1	Dominic James	Driver	M	-	SSLC	5200-20200 +2000	10380	1.6.1996	P	OBC
14	Driver 2	Gulam Rasul Babu	Driver	M	-	SSLC	5200-20200 +2000	10060	1.7.96	P	OBC
15	Supporting staff 1	Rajesh	Farm assistant	M	-	BA	5200-20200+ 1800	8560	1.12.96	P	SC
16	Supporting staff 2	Xavier	Watchman	M		M.Com	5200-20200+ 1800	8080	12.11.01	P	OBC

1.6. Total land with KVK (in ha) : 20 ha

S. No.	Item	Area (ha)
1	Under Buildings	2.0
2.	Under Demonstration Units	0.8
3.	Under Crops	3.0
4.	Orchard/Agro-forestry	6.0
5.	Others	8.20

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	2001	1100	42 Lakhs			
2.	Farmers Hostel	ICAR	02.03.2011	305	35 Lakhs			
3.	Staff Quarters	ICAR	2007	650	24 Lakhs			
4.	Demonstration Units	ICAR	2006	200	1.89 Lakhs			
	1. Poultry shed							
	2. Vermicompost unit							
5	Storage Godown	ICAR	2.3.2012	45	3 Lakhs			
6	Vehicle cum Implement shed	ICAR	2.3.2012	60	3 Lakhs			

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tempo cruiser	3/30/2004	4.96	163082	Needs major repair and maintenance
Bajaj boxer CT 100 delux	4/18/2005	0.39	78014	Running
Hero Honda Splendor	4/13/2009	0.45	73856	Running

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
OHP	1996	18315	Good Condition
Slide projector	1996	14265	Not in use
Electronic type writer	1996	19200	Not in use
Mf tractor and trailer	1999	362400	Condemned
Photo copier	2005	82840	To be condemned
Computer with printer and accessories	2005	68800	To be condemned
Digital photo camera	2005	19990	To be condemned
LCD projector screen and laptop computer	2007	98600	Under repair and spares not available : To be condemned
Fax machine	2009	15000	Nil
Power tiller	2010	150000	Nil
Generator	2011	150000	Nil
AV aid	2011	15000	Nil
EPABX	2011	15000	Nil
LCD Projector (Infocus)	2011	35490	Good Condition

1.8. Details SAC meeting conducted in 2015 – 16 – Nil

Sl.No.	Date	Salient Recommendations	Action taken

Note: The SAC Meeting could not be conducted due to financial restriction as per the advice of ZPD unit

PART II – DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
1	**Dry farming** – single crop in a year using NE monsoon, **Major crops**- chillies, pearl millet, maize, onion, fodder sorghum, sorghum, black gram , green gram, gingelly, sunflower, groundnut, castor, redgram, cotton, tomato, ,brinjal, cluster bean. **Major livestock** – goat, sheep, backyard poultry, Cross breed cattle, Non descript cattle.
2	**Garden land farming** – two or three crops in a year using open or tube well irrigation. **Major crops**- vegetables, banana, groundnut, flowers, chillies, drum stick, and cotton **Major livestock**- cross bred cattle, goat, backyard poultry
3	**Tank fed/ river command area farming** – one or two crops in a year. **Major crops** – Banana and paddy. **Major livestock** – cross bred cattle, goat, sheep, backyard poultry
4.	**Coastal region** – Marine fishing, goat rearing, salt pan work

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

S. No	Agro-climatic Zone	Characteristics
01	Southern zone	The topography of the zone is undulating. This zone lies on the rain shadow area of the Western Ghats. The mean annual rainfall is 650mm with a contribution about 470mm from North East monsoon. The soil of this region falls under major groups viz., black, red, alluvial and lateritic. saline coastal alluvial soils are also present in the coastal belt. In black soil only one crop, either cotton or sorghum is raised. Direct seeded rice is cultivated under rain fed condition. On red soil, groundnut crop is raised. Under garden land conditions, Bajra and chillies form the major crops.

S. No	Agro ecological situation	Characteristics
01.	Hot semiarid eco region (H_1 D_2)	Hot and dry summers and mild winters with a mean annual rainfall of 600 to 1000mm and a length of growing period of 90-150 days in a year. Soil type- red loamy soil, Rain fed cultivation is the traditional practice with crops like millets, pulses, and oilseeds under irrigated conditions cotton, sugarcane and rice are the major crops . Severity of the soil erosion and drought due to poor moisture holding capacity of soil are the major constraints.
	Hot subhumid to semiarid eco region with coastal alluvium derived soil (S_7 CD_{2-5})	Crop growth period 90-210 + days, coastal alluvium soil type

2.3 Soil types

S.No	Soil type	Characteristics	Area (in ha)
1	Sandy soil	These are derived from granities ,graniloid,quartzites and sand stones .The colours are due to red hematite and yellow limonite .Base Exchange capacity is from 5 to 25 meq per 100 g of the soil and PH generally on the acidic side , ranging from p^H 4.5-6.5	70,324
2	Clay soil	They have a characteristic dark colour ,varying from dark brown to deep black .They are formed by the weathering of trap rocks .These soils have a clay percentage ranging from 40-60%.the composition of clay is chiefly of the monomorillonite group and thus shows swelling and shrinking .The p^H varies from 7.5-8.5	1,88,876
3	Sandy loam	Moderate medium sub angular blocky ,dry hard ,moist friable ,wet slightly sticky and very slightly plastic ;many fine roots ;many fine and common medium pores ;rapid permeability ;clear smooth boundary; p^H 6.8	31,722
4	Sandy clay loam	Weak fine sun angular blocky ;dry slightly hard ,moist friable ,wet slightly sticky and slightly plastic ,slight effervescence ; many fine roots ;many fine to medium irregular pores ;moderately rapid permeability ;clear smooth boundary ; p^H 8.0	82,226
5	Sandy clay	Moderate medium sub angular blocky ,dry hard ,moist firm ,wet sticky and plastic ;many fine roots ;few fine pores and mild effervescence ;slow permeability ;clear wavw boundary; p^H 7.3	8,688

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

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)	% to the total area sown
1.	**A. FOOD GRAINS:**				
	a) CEREALS & MILLETS				
	Paddy	20278	29814	4520	14.10
	Sorghum	8327	18871	2106	5.79
	Cumbu	11888	16473	1754	8.26
	b) PULSES				
	Black gram	32177	6540	172	22.37
	Green gram	29373	6269	177	20.42
2	**B. FIBRE**				
	Cotton	4879	6440	1.32	3.39
3.	**C. OIL SEEDS**				
	Ground nut	1183	1151	2227	0.82
	Sesame	1905	307	274	1.32
	Sun flower	1470	614	490	1.02
4.	**D. OTHER CROPS**				
	Chilli	14774	2058	176	10.27
	Banana	9578	287340	30000	6.66
	Drumstick	950	19000	20000	0.66
	Coriander (Grains)	3248	1023	315	2.26
	Onion	1508	18096	12000	1.05
	Other vegetables	2306	36896	16000	1.60

* Source: Joint Director of Agriculture, Thoothukudi District (Year 2015 – 16)

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April – **2015**	34.05	31	28	85	**68**
May	57.69	34	26	80	**64**
June	11.57	34.8	27.2	82	67
July	2.71	34.7	28.9	80	69
August	17.34	34.2	29.9	84	71
September	29.16	34	26	85	73
October	116.12	32	26	86	74
November	341.44	31	24	90	79
December	156.87	30	23	90	79
January – **2016**	0.0	29	22	90	61
February	4.60	35	22	96	63
March	7.34	35	24	97	76

Source: 1. Scientific officer, Meteorological Observatory, ARS (Kovilpatti) (Temperature and Humidity)
District JDA office, Thoothukudi for RF.

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

Category	Population
Cattle	124310
Dogs	36427
Sheep	188946
Goat	305842
Poultry	315157

Source: 18th livestock census

Category	Area	Production	Productivity
Fish			
Marine	**163.5 km**	**41050 tonnes**	**-**
Inland			
Prawn	**NA**	**NA**	**NA**
Scampi	**NA**	**NA**	**NA**
Shrimp	**NA**	**NA**	**NA**

Source: Assistant Director of Fisheries, Thoothukudi

2.7 District profile has been Updated for 2015 – 16 Yes / ~~No~~: Yes

2.8 Details of Operational area / Villages

Sl. No.	Taluk	Block	groups of 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	Vilathikulam	Vilathikulam	Pilaiyarnatham	1 Year	Chilli, Coriander, Pulses, Sorghum, Sheep, Goat	Water scarcity, labour shortage, lack of awareness about high yielding new variety, Mortality in livestock due to diseases. Lack of awareness in utilization of water bodies for inland fish cultivation Lack of awareness in school garden	1,4,8,10,14,16,6,7,12
2	Srivaikundam	Srivaikundam	Siruthandanallur	2 Years	Paddy, Banana, Drumstick, Coconut	Lower net income due to poor varietal selection, pest and disease Lack of awareness in school garden	3,4,8,1,2,6,12
3	Srivaikundam	Karungulam	Manakkarai	2 Years	Paddy, Banana	Low productivity crop due to poor quality seeds, pest and diseases Lack of awareness in school garden	3,4,8,5,6,12
4	Srivaikundam	Karungulam	Lakshmipuram - Poovani	1 Year	Paddy, Black gram, Green gram, Ground nut, cattle, goat, poultry	Low productivity from the farming system due to poor management practices Lack of awareness in school garden	3,4,6,8,12,15,
5	Ottapidaram	Ottapidaram	Akkanayakanpatti	1 Year	Paddy, Black gram, Green gram, Ground nut, Cotton, Goat, Cattle and Sheep, Vegetables	Low productivity from the farming system due to poor management practices Lack of awareness in school garden	1,2,3,4,5,8,10,15,12,6
6	Vilathikulam	Pudur	Nagalapuram	1 Year	Black gram, green gram, chilli, maize, pearl millet, sorghum, goat, sheep, cattle, poultry	Lower yield due to lack of availability quality seeds and poor management practices and high cost of cultivation	1,2,4,8,14,16,7,6,15,12

2.9 Priority thrust areas

S. No	Thrust area
1	Promotion of soil test based nutrient management
2	Improvement of soil fertility through sustainable practices
3	Introduction of high yielding , improved crop varieties in agriculture and horticulture
4	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton
5	Promotion of ecological pest control measures and organic farming techniques
6	Promotion of Bio fertilizers and Vermicompost usage
7	Promoting Tree planting in wastelands and in the backyards
8	Ensuring nutritional security of farm women and children through Kitchen gardening, storage and healthy cooking habits
9	Promotion of value added product preparation from Prosopis juliflora , milk ,fish ,banana , minor millets and vegetables
10	Promotion of IFS model farming system
11	Promotion of drought mitigation measure
12	Promotion of alternative poultry farming , improved backyard poultry breeds, and artificial incubation of eggs.
13	Awareness creation on drought mitigation and promotion of appropriate agronomic techniques
14	Comprehensive disease control measures in livestock
15	Feeding and breeding management in cattle and goats
16	Promotion of inland freshwater fish cultivation in village ponds

PART III – TECHNICAL ACHIEVEMENTS

3A. 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
4	4	28	28	16	16	168	168
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
69	94	1510	2272	629	638	12000	12266

Seed Production (Qtl)		Planting materials (Nos)	
5		6	
Target	Achievement	Target	Achievement
Co Fs 29 – 10 Azolla – 20 Veg. Seed Pocket – 500 Nos (0.10qtl)	Co Fs 29 – 10 Azolla – 23.9 Veg. Seed Pocket – 713 Nos (0.14qtl)	50000	53019

Livestock, poultry strains and fingerlings (No)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
7500	15,707	2000 Kg EMA – 1000 Lit	2685.2 Kg EMA – 1012 Lit Salt lick – 115 kg

3B1. 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 (Kg)
1	Promotion of soil test based nutrient management	All Crop	Blanket or excessive application of fertilizers leads to poor yield in crops	-	-	1	0	0	20 108 (Soil Test)	0	0	0	0
2	Improvement of soil fertility through sustainable practices	All Crop	Blanket or excessive application of in organic fertilizers alone leads to poor yield in crops	-	-	1	0	0	24	0	0	0	10
3	Introduction of high yielding , improved crop varieties in agriculture and horticulture	Paddy	Low level of awareness on usage of traps, Increased cost of cultivation , Stem borer , Leaf folder Blast & Bacterial leaf blight	Assessment of Ecological Engineering in control of pest affecting Paddy var.ASD 16	Demonstration on Paddy TPS (R) – 5 in Thamirabarani River Command area	3	0	0	17	2.4	50000	0	10
4	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Paddy	Severe damage of stem borer and leaf folder -20% in the paddy area 28 ha Indiscriminate usage of chemical pesticide and leads to high cost Yield loss up to 28 % in severe cases		Demonstration on IPM in Paddy to contain Stem borer and Leaf folder	5	0	0	19	0	0	0	0
		Groundnut	Continuous usage of local seeds Low level of awareness on improve, high yielding varities	Assessing the suitability of high yielding short duration ground nut varieties	-	1	0	0	22	2	0	0	0
		Drum stick	Lesser price in market	Assessment Of Off Season Production techniques in Drumstick	Demonstration on Ecological pest control in drumstick	4	0	0	21	0.014	0	0	0
		Green gram	40% yield loss due to YMV Poor pod filling due to MN deficiency Labour shortage for weeding in time Non availability of latest high yielding varieties in time		Demonstration On Green gram[CO – 8] in Dry Land Farming	4	0	0	26	0.8	0	0	10

		Black gram	40% yield loss due to YMV Poor pod filling due to MN deficiency, Labour shortage for weeding in time Non availability of latest high yielding varieties in time, Heavy usage of Weedicide &High cost of weedicide	-	Demonstration On Black Gram[VBN – 6] with ICMP Practices	5	0	0	21	0.8	0	0	10
		Rice Fallow Black gram	Non utilization of residual moisture for rice fallow black gram cultivation due to terminal drought. Area reduced from 275ha to 0ha in the Manakkarai cluster	-	Demonstration On Rice Fallow Black Gram Cultivation In River Command Area	1	0	0	20	0	0	0	10
		Banana	Heavy incidence of Panama wilt and sigataka leaf spot Heavy yield loss up to 75% in severe cases Lack of knowledge on identification of pest and diseases to take suitable control measures		Demonstration on Integrated Disease management in Banana	5	0	0	22	0	4000	0	100
		Lablab	Loss of long duration vegetables crops due to water scarcity Low level of awareness on high yielding short duration vegetables Low water level during summer High production and marketing cost for the other cash crops (ground nut) Low Production and net return to garden land farmers	Assessment Of Bush Type Dolichos Bean Varieties	Demonstration on Inter cropping in Banana with Dolichos bean (CO 14)	6	0	0	22	0.8	0	0	0
		Sweet Corn			Demonstration on Sweet corn cultivation	0	0	0	22	0.03	0	0	0
5	Promotion of ecological pest control measures and organic farming techniques	Coconut	Under utilization of space, water and soil Lack of information on mixed cropping system owner net profit/unit area (Rs. 30000/acre)		Demonstration On Mixed Cropping System In Coconut Plantation	1	0	0	24	0	0	0	0
6	Promotion of Bio fertilizers and Vermicompost usage	All crops	High cost of chemical fertilizers Soil degradation	-	-	3	0	0	40	0	0	0	3724.2

7	Promoting Tree planting in wastelands and in the backyards	All crop	Lack of awareness in high yielding fruit tree seedlings,	-	-	0	0	1	16	0	3019	0	0
8	Ensuring nutritional security of farm women and children through Kitchen gardening, storage and healthy cooking habits	Nutrition garden	Poor intake of vegetables by the school children (30 -40 g/day), high cost of vegetables, Lack of knowledge in multi nutritive value of vegetables and greens among the school going children, Intake of vegetables with toxic residues of pesticides Lack of utilization of used water	-	Demonstration of Nutrition Garden in Schools	11	1	1	21	7.12	0	0	10
9	Promotion of value added product preparation from Prosopis juliflora , milk ,fish ,banana , minor millets and vegetables	Value addition	Spread of Prosopis in cultivable lands Lack of knowledge on value addition	-	-	10	2	0	22	0	0	0	0
10	Promotion of IFS model farming system	IFS	Single component crop / animal production in not sustainable	-	-	0	2	0	19	0	0	0	0
11	Promotion of drought mitigation measure	Chilli	Drought low level of awareness on drought mitigation lower net income to the growers	-	-	0	0	0	15	0	0	0	0
12	Promotion of alternative poultry farming, improved backyard poultry breeds, and artificial incubation of eggs.	Poultry	Lack of awareness on backyard poultry practices	-	-	5	0	0	17	0	0	8057	0
13	Awareness creation on drought mitigation and promotion of appropriate agronomic techniques	All Crop	-	-	-	0	0	0	18	0	0	0	0

14	Comprehensive disease control measures in livestock	Sheep	Mortality due to infectious diseases like sheep pox, Entero toxemia, Anthrax, Blue tongue and Pneumonia and ectoparasitism upto 30 % in adults and 50% in lambs No separate care to the lambs until the age of 3 months and all the excessive ram lambs were sold in the market. only the ewe lambs were retained for breeding purposes Vaccinating the sheep against the diseases only in the phase of outbreak and no preventive vaccination was carried out vaccination and deworming : vaccination and medication all done without the advise of veterinarian but by peer interaction and as per the advise of medical shop persons in virudhunagar, mostly because of their nomadic nature Deworming is done once in 3-4 months with ivermectin, albendazole and tetramisole in rotation Vaccination against FMD, Sheep pox and PPR during the months of October, December and January months respectively, ET vaccination will be done only during the disease outbreak mostly during July and August No dipping is practiced to control ecto parasites	-	FLD On Scientific Management And Comprehensive Disease Control Practices In Sheep Rearing	3	0	0	26	0	0	0	0
15	Feeding and breeding management in cattle and goats	Goat	Ill thrift / poor weaning weight in goat kids (avg.5.5kg) Mortality due to infectious diseases like, Entero toxemia, Anthrax, PPR and Pneumonia and ectoparasitism upto 30 % in adults and 50% in kids No deworming to the kids until the age of 3 months Vaccinating/ Treating the Goat against the diseases only in the phase of outbreak and no preventive vaccination was carried out	-	Demonstration on Mineral lick feeding to enhance body weight gain in Goat kids	4	0	0	18	40.52	0	0	115 (salt lick)
		Dairy cow	less returns from dairy cattle rearing leading to reduction in number of milch cow keeping (50% of farmers (45 persons) gave up rearing milch cows because of less profitability in Akkanayakanpatti cluster)		Demonstration for improvement of profitability in High yielding cross bred Dairy cows	2	0	0	20	0	0	0	0

		Dairy cow	Infertility or delayed fertility due to mineral deficiencies (65% of cows were affected with this this problem in Akkanayakanpatti) No.of cows in the cluster – 165		Demonstration for improvement of profitability in low yielding cross bred Dairy cows	4	0	0	15	0	0	0	0
16	Promotion of inland freshwater fish cultivation in village ponds	Fish	Lack of awareness in fish rearing in village ponds.		Demonstration of composite fish culture with stunted fingerlings	0	0	0	14	0	0	0	0
17	Formation of Women SHG, JLG, FIG, FPO	Farmers / Farm Women	Lack of recent technologies and inputs available to farmers and farm women, marketing problems	-	-	0	0	2	86	0	0	0	0
18	High tech Horticulture and nursery management	Chilli, Tomato, Brinjal	Lack of availability of quality seedlings in time	-	-	4	1	1	20	0	0	0	0
TOTAL						**83**	**6**	**5**	**638**	**54.48**	**5 7019**	**15707**	**3995.2**

3B2. Details of technology used during reporting period

S. No	Title of Technology	Source of technology	Crop/ Enterprise	No. of programmes conducted				No. Of farmers Covered															
								OFT				FLD				Training				Others			
								General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
				OFT	FLD	Training	Extension activities	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1.	Assessment of off season production techniques in drumstick	TNAU	Drum stick	1		2	14	7								24	0	4	1	71	42	45	28
2.	Assessment of yield potential of Dolichos bean varieties	TNAU & IIHR	Dolichos bean	1		3	12			7						29	3	0	3	92	45	78	54
3.	Assessing the suitability of high yielding short duration groundnut varieties	TNAU	Groundnut	1		2	22			7						24	4	4	7	32	49	67	25
4.	Assessment of Ecological Engineering in ASD (R) 16 Paddy	TNAU, DPPQ &S, Haryana	Paddy	1		1	17	6		1						16	5	3	4	69	45	56	45
5.	Demonstration on Paddy TPS (R) – 5 in Thamirabarani River Command area	TNAU	Paddy		1	1	23					7	3			15	4	2	5	63	55	45	39
6.	Demonstration On Black Gram[VBN – 6] with ICMP Practices	TNAU	Black gram		1	1	20							10		14	5	2	3	56	61	44	38
7.	Demonstration On Green gram[CO – 8] in Dry Land Farming	TNAU	Green Gram		1	2	26							10		14	3	7	4	79	85	82	91
8.	Demonstration on IPM in Paddy to contain Stem borer and Leaf folder	TNAU	Paddy		1	1	19							10		4	5	2	7	62	91	84	78
9.	Demonstration on Integrated Disease management in Banana	TNAU	Banana		1	4	22					2		2	1	31	21	18	0	78	98	74	81
10.	Demonstration of Nutrition Garden in Schools		Vegetables		1	10	21					4	2	2	2	49	45	32	42	94	101	82	89

11.	Demonstration On Rice Fallow Black Gram cultivation in River Command Area	TNAU	Black gram		1	1	21					8	2			12	2	4	6	72	81	94	87
12.	Demonstration on Ecological pest control in drumstick	TNAU	Drumstick		1	3	12					10				24	0	8	0	78	85	82	91
13.	Demonstration on Inter cropping in Banana with Dolichos bean (CO 14)	TNAU	Banana & Dolichos bean		1	2	14					7		2	1	57	18	21	0	89	78	79	81
14.	Demonstration On Mixed Cropping System In Coconut Plantation	TNAU	Coconut		1	2	24					10	0	0	0	20	8	0	0	91	82	54	72
15.	Demonstration on Sweet corn cultivation	DMR	Sweet Corn		1		22					4	0	5	1	0	0	0	0	72	73	81	87
16.	Demonstration for improvement of profitability in High yielding cross bred Dairy cows	CAZRI, TNAUVAS	Dairy Cow		1	2	20							9	6	17	6	0	0	62	68	75	75
17.	Demonstration for improvement of profitability in Low yielding cross bred Dairy cows	TNAUVAS	Dairy Cow		1	2	21							10	5	27	8	0	0	81	79	82	92
18.	FLD On Scientific Management And Comprehensive Disease Control Practices In Sheep Rearing	TNAUVAS	Sheep		1	1	17					10				6	0	0	0	91	82	94	74
19.	Demonstration on Mineral lick feeding to enhance body weight gain in Goat kids	TNAUVAS	Goat		1	2	18							13	7	16	0	2	0	95	83	97	83
20.	Demonstration on composite fish culture	TNAU/ TNFU	Fish		1		14					2	1	0	0					78	91	95	93
21.	Promotion of Seed Production	TNAU	Paddy and pulses			4	14									49	58	13	11	94	89	87	79

22.	Soil and water conservation	TNAU	All crop			1	6									12	0	4	0	35	41	29	45
23.	Nursery raising	TNAU	Horticultur e crop			5	5									49	42	34	26	14	11	15	18
24.	Pest management in Jasmine cultivation	TNAU	Jasmine			1	2									5	0	4	9	12	15	8	13
25.	Information net working among farmers		All crop			2	34									13	20	3	0	102	89	85	97
26.	production of organic inputs	TNAU	All crop			3	7									36	11	11	2	121	96	87	96
27.	Integrated farming system	TNAU	All crop			2	6									40	1	5	15	97	86	91	79
28.	Increasing production and productivity of crops	TNAU	All crop			1	8									24	0	8	0	94	78	89	91
29.	Value addition of fruits and millets	TNAU	fruits & millets			12	8									80	72	30	60	89	85	81	79
30.	House hold food security by kitchen gardening and Terrace gardening	TNAU	Vegetables			3	18									35	43	26	27	94	92	95	78
31.	Designing and development for high nutrient efficiency diet	TNAU	Women			1	16									0	28	0	0	45	102	49	110
32.	Women & child care	TNAU	Women & child			1	6									2	12	0	13	30	112	25	145
33.	Women empowerment		Women			1	48									0	43	0	24	42	124	23	102
34.	Rural Crafts		All crop			2	6									0	19	0	25	35	98	28	105
35.	Climate and environment		All crop			1	20									4	20	0	8	105	58	94	42
36.	Poultry management	TNAUVAS	Poultry			3	11									42	50	27	29	84	35	95	104
37.	Dairy management	TNAUVAS	Dairy Cow			4	12									35	34	13	44	98	48	78	39
38.	Protective cultivation	TNAU	Horticultur e crop			1	5									5	3	0	2	89	15	45	27
39.	Animal nutrition management	TNAUVAS	Dairy Cow & sheep			2	8									60	64	0	0	75	54	89	27
40	Animal disease management	TNAUVAS	Dairy Cow & goat			2	19 (field visit and veterinary camp)									34	27	0	0	79	56	98	62
TOTAL				**4**	**16**	**94**	**638**	**13**	**0**	**15**	**0**	**64**	**8**	**73**	**23**	**924**	**684**	**287**	**377**	**2939**	**2858**	**2781**	**2841**

PART IV - On Farm Trial

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

Thematic areas	Cereals	Oil seeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management					1					1
Varietal Evaluation		1			1					2
Integrated Pest Management	1									1
Integrated Crop Management										
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4**

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 – Nil

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

4.A4. Abstract on the number of technologies refined in respect of livestock enterprises – 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 (Per trail covering all the Technological Options)
Integrated Nutrient Management	Drumstick	Assessment of off season production techniques in drumstick	7	7	0.2
Varietal Evaluation	Dolichos bean	Assessment of yield potential of Dolichos bean varieties	7	7	0.2
	Groundnut	Assessing the suitability of high yielding short duration groundnut varieties	7	7	0.2
Integrated Pest Management	Paddy	Assessment of Ecological Engineering in ASD (R) 16 Paddy	7	7	0.2
TOTAL			**28**	**28**	**-**

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

4.B.3. Technologies assessed 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.B.4. Technologies Refined under Livestock and other enterprises – Nil

4C1. Results of Technologies Assessed

Results of On Farm Trial

OFT No	Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed with Source	Parameters of Assessment	Unit	Data on the Parameters
1	Paddy	Irrigated	Low level of awareness on usage of traps Increased cost of cultivation Blast & Bacterial leaf blight More usage of Insecticides Low Yield 4565kg/ha	Assessment of Ecological Engineering in ASD (R) 16 Paddy	7	T1- Farmer Practices	Hill /M 2	No	17.43
							Productive tiller /Hill	No	13.57
							Grain / panicle	No	112.14
							1000 grain weight (g)	Gm	20.14
							Leaf folder affected leaf / m2	%	14%
							Stem borer – head heart %	%	12%
							Stem borer – White ear %	%	5%
							Beneficial insect % Spiders & lady bird beetles	%	2%
						T2 – IPM Methods	Hill /M 2	No	16.57
							Productive tiller /Hill	No	15.86
							Grain / panicle	No	122.86
							1000 grain weight (g)	Gm	20.29
							Leaf folder affected leaf / m2	%	12%
							Stem borer – head heart %	%	12%
							Stem borer – White ear %	%	4%
							Beneficial insect % Spiders & lady bird beetles	%	4 %
						T3 – Ecological Engineering Methods	Hill /M 2	No	17.86
							Productive tiller /Hill	No	15.86
							Grain / panicle	No	126.86
							1000 grain weight (g)	Gm	20.14
							Leaf folder affected leaf / m2	%	9%
							Stem borer – head heart %	%	10%
							Stem borer – White ear %	%	2%
							Beneficial insect % Spiders & lady bird beetles	%	12%

Production	Result of Assessment		Farmers Feedback	Any Refinement needed	Justification for refinement	Net Return in Rs	BC Ratio
T_1 - 5285	T_1	5285Kg/ha	Ecological pest management controls the pest and diseases very effectively when applied at right time			20921	1.4
T_2 – 6301	T_2	6301Kg/ha				34702	1.8
T_3 – 6556	T_3	6556Kg/ha				37661	1.9

OFT No	Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed with Source	Parameters of Assessment	Unit	Data on the Parameters
2	Dolichos bean	Irrigated	High production and marketing cost for the other cash crops (ground nut) Loss of long duration vegetables crops due to water scarcity	Assessment Of Bush Type Dolichos Bean Varieties	7	**T1**- Co – 14	Days for first flowering	days	40
							Days for first harvest	days	54
						T2 – Arka Amogh	Days for first flowering	days	42
							Days for first harvest	days	56

			Low water level during summer Low level of awareness on high yielding short duration vegetables			**T3** – Arka Samran	Days for first flowering	days	45
							Days for first harvest	days	59

Production	Result of Assessment		Farmers Feedback	Any Refinement needed	Justification for refinement	Net Return in Rs	BC Ratio
T_1 – 7.23	T_1	7.23ton/ha	Though Arka amogh yield was good, Co14 fetched high price due to broad, green pods			105729	2.84
T_2 – 8.76	T_2	8.76ton/ha				123952	3.16
T_3 – 8.62	T_3	8.62ton/ha				121055	3.11

4.C. 2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

OFT no.		**1**			
1	Title of Technology Assessed	**Assessment of Ecological Engineering in ASD (R) 16 Paddy**			
2	Problem Definition	• Low level of awareness on usage of traps • Increased cost of cultivation • Blast & Bacterial leaf blight • More usage of Insecticides			
3	Details of technologies selected for assessment	Farmer Practices	IPM	IPM + Ecological	
4	Source of technology				
5	Production system and thematic area	Wet land system, Pest Management			
6	Performance of the Technology with performance indicators	**Parameters**	**T1**	**T2**	**T3**
		Hill /M 2	17.43	16.57	17.86
		Productive tiller /Hill	13.57	15.86	15.86
		Grain / panicle	112.14	122.86	126.86
		1000 grain weight (g)	20.14	20.29	20.14
		Leaf folder affected leaf / m2	14%	12%	9%
		Stem borer – head heart %	12%	12%	10%
		Stem borer – White ear %	5%	4%	2%
		Beneficial insect % Spiders & lady bird beetles	2%	4 %	12%
		Yield /ha (kg)	5285	6301	6556
		Gross Cost (Rs)	42500	40928	41014
		Gross Return (Rs)	63421	75630	78675
		Net Return (Rs)	20921	34702	37661
		BC Ratio	1.4	1.8	1.9
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Ecological pest management controls the pest and diseases very effectively when applied at right time			
8	Final recommendation for micro level situation	The cover crops in the bunds of paddy field helped to increases the beneficial insects like spider and lady bird beetle. So this practice can be integrated in the regular IPM and IDM practices for Paddy			
9	Constraints identified and feedback for research	If bund size is smaller than establishment of border plants is difficult and poor, suitable only in field where bund size is more			
10	Process of farmers participation and their reaction	Farmers were selected through village level meeting and trained on technologies through On and Off campus training. Farmers are showing great interest and following guidelines carefully			

OFT No		2			
1	Title of Technology Assessed	**Assessment Of Bush Type Dolichos Bean Varieties**			
2	Problem Definition	• High production and marketing cost for the other cash crops (ground nut) • Loss of long duration vegetables crops due to water scarcity • Low water level during summer • Low level of awareness on high yielding short duration vegetables			
3	Details of technologies selected for assessment	Co – 14 lab lab	Arka Amogh lab lab	Arka Soumya lab lab	
4	Source of technology	TNAU	IIHR	IIHR	
5	Production system and thematic area				
6	Performance of the Technology with performance indicators	**Parameter**	**T1**	**T2**	**T3**
		Days for first flowering	40	42	45
		Days for first harvest	54	56	59
		Yield /ha (ton)	7.23	8.76	8.62
		Gross Cost / ha (Rs)	57285	57285	57285
		Gross Return / ha (Rs)	163014	181237	178340
		Net Return / ha (Rs)	105729	123952	121055
		BC Ratio	2.84	3.16	3.11
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	Though Arka amogh yield was good, Co14 fetched high price due to broad, green pods			
8	Final recommendation for micro level situation	Since the Co-14 is preferred by consumer than Arka Amogh and Arka Soumya, Co-14 is highly suitable for cultivation in Thoothukudi District.			
9	Constraints identified and feedback for research	The No of pods/flower cluster is lower in co-14 (8-11) than in Arka Amogh and Arka sowmya. This character can be included in CO-14 to enhance the yield/ha			
10	Process of farmers participation and their reaction	Farmer's participation was good. They expressed that co -14 is a best alternative vegetable crops to long duration vegetable crop and to get good income in short period.			

OFT No		3			
1	Title of Technology Assessed	**Assessing the suitability of high yielding short duration groundnut varieties**			
2	Problem Definition	• Continuous usage of local seeds • Low level of awareness on improved, high yielding varities			
3	Details of technologies selected for assessment	TMV (Gn) 7	CO (Gn) -6	TMV (Gn) 13	
4	Source of technology	TNAU – 1990	TNAU – 2010	TNAU – 2006	
5	Production system and thematic area	Varietal evolution			
6	Performance of the Technology with performance indicators	**Parameter**	**T1**	**T2**	**T3**
		Duration	105	120	105 - 110
		No of plant /m2	20.1	22.8	25.4
		No of pods /plant immature pods 85th day old	15.5	18	20.5
		Leaf colour	Light green colour	Dark green	Dark green
		No of nodules	33.8	34.7	35.1
		Early Leaf spot	Not affected	Not affected	Not affected
		Iron chlorosis (%)	22.2	20.2	19.5
		Stage of the crop	Maturity stage	Maturity stage	Maturity stage
7	Feedback, matrix scoring of various technology parameters done through	**In Progress (Maturity Stage)**			

	farmer's participation / other scoring techniques	
8	Final recommendation for micro level situation	
9	Constraints identified and feedback for research	
10	Process of farmers participation and their reaction	

OFT No		**4**			
1	Title of Technology Assessed	**Assessment of off season production techniques in drumstick**			
2	Problem Definition	• Continuous usage of local seeds • Poor cultivation practices (Pest & Disease Mgt) • Less awareness on off season production techniques • Market glut – less price (Mar-Aug)			
3	Details of technologies selected for assessment	**No pruning**	**Early sowing + pruning + KNO3 spray**	**early sowing + Pruning + Ethereal spray**	
4	Source of technology				
5	Production system and thematic area				
6	Performance of the Technology with performance indicators	**Parameter**	**T1**	**T2**	**T3**
		Parameters (average)			
		Days to flowering			
		Number of pods			
		Pod length			
		Pod weight			
		Fruiting period (days)			
		Yield (qtl/ha)			
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	**On Progress** Operations carried out: Nipping or Pinching completed at 90-100 cm height. Operation to be carried out: To induce more flowering and to increase the flower longevity 1. Pruning: July 2nd week 2. Spraying of Kno_3: July last- Aug 1st week @2gm/lit 3. Spraying of Ethrel : July last- Aug 1st week @250ppm			
8	Final recommendation for micro level situation				
9	Constraints identified and feedback for research				
10	Process of farmers participation and their reaction				

4. D1. Results of Technologies Refined - Nil

4.D.2. Details of each On Farm Trial for refinement to be furnished in the following format separately as per the following details: - Nil

PART V - FRONTLINE DEMONSTRATIONS

5. A. Summary of FLDs implemented during 2015 – 16

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
1	Cereals	Irrigation	Rabi 2015-16	Paddy	TPS – 5	---	Introduction of high yielding , improved crop varieties in agriculture and horticulture	ICMP in Paddy TPS – 5 (TNAU 2014) duration 118 days Short bold (Y – 6.3 t/ha) INM - Application of organic manures 12.5 t of FYM or compost or green manure is raised @ 50 kg seeds /ha. Bio fertilizer application. Application of inorganic fertilizers – NPK 150 : 50 : 50. Application of zinc sulphate 25 kg /ha IWM - Pre-emergence herbicides -Butachlor 1.25kg/ha IPDM Practices.	4	4	0	10	10	Nil
2	Pulses	Rain fed	Rabi 2015-16	Black gram	VBN (Bg) – 6	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Seed – VBN(Bg) – 6 (TNAU, 2011) (crop duration 65 days, Potential yield- 850kg/ha) Line sowing /sowing with seed cum fertilizer drill and weeding by twin hoe weeder Pulse wonder foliar spray	4	4	10	0	10	Nil
3	Pulses	Rain fed	Rabi 2015-16	Green gram	Co (Gg) – 8	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Seed – CO (Gg) – 8 (TNAU,2011) (Synchronized Maturity, Y- 882 kg/ha , duration 60-65 days) Line sowing with seed cum fertilizer drill. Setting up of pheromone trap (5/acre), NPV spray @ 100ml /Acre	4	4	10	0	10	Nil
4	Cereals	Irrigated	Rabi 2015-16	Paddy	ASD – 16	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	IPM practices includes release of *Trichogramma japonicum* egg card @ 1.5cc/ha (stem borer) Release of *T.chilonis* egg card @ 1.5 cc/ ha (For Leaf folder). Neem soap spraying @three times 2.25 kg/ha Cartop hydro chloride -1.250g/ha (need based)	4	4	10	0	10	Nil
5	Fruit	Irrigated	Kharif 2015-	Banana	Robusta	---	Promotion of ICM practices for major crops	Integrated practice includes Field sanitation Sucker treatment with Carbandazim (10gm/10 lit of water) Application of *Pseudomonas flourosence* @50	4	4	3	2	5	Nil

			16				like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	kg along with Neem cake @300 Kg/Ha Adoption of proper spacing Spraying of Propiconozole @3gm/lit-3 spray Corn injection with Carbandazim (10gm/10 lit of water) – 3 times						
6	Cattle		2015-16	Cattle		---	Feeding and breeding management in cattle and goats	Mesquite pod flour *(Prosopis juliflora*) feeding @ 2kg/cow /day by completely replacing wheat bran/ pearl millet flour feeding (CAZRI , 2005) TANUVAS MM supplement at the rate of 50g daily for cows in lactation (TANUVAS, 2010) Feeding, Breeding and Disease management practices for dairy cows (TANUVAS 2008)	---	---	15	0	15	Nil
7	Cattle		2015-16	Cattle		---	Feeding and breeding management in cattle and goats	SMART MM feeding @ 50 g daily. Breeding and Disease management practices for dairy cows (TANUVAS 2008) Artificial insemination, clean milk production. Vaccination against FMD , HS Deworming once in 3 months withAlbendazole /ivermectin Acaricide application to control ticks with pour on preparation	---	---	15	0	15	Nil
8	Goat & Sheep		2015-16	Sheep		---	Comprehensive disease control measures in livestock	Vaccination against enterotoxaemia, tetanus, blue tongues. Deworming and de licking. Mineral lick feeding.	---	---	0	10	10	Nil
9	Goat & Sheep		2015-16	Goat		---	Feeding and breeding management in cattle and goats	Mineral lick feeding to goat kid s @ 1kg/20 kids/month (TANUVAS, 2012) Regular vaccination and Deworming and dipping practices (TANUVAS, 2008)	---	---	20	0	20	Nil
10	Vegetables	Irrigated	Rabi 2015-16	School Garden	---	---	Ensuring nutritional security of farm women and children through Kitchen gardening, storage and healthy cooking habits	Establishment of nutrition Garden in Schools and Anganwadi centers Effective usage of school campus & Establishment of vermicompost unit	---	---	4	6	10	Nil
11	Cereals	Irrigated	Rabi 2015-16	Rice fallow Black gram	ADT – 3	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	ICMP to black gram ADT – 3 (duration -70 days) yield – (720kg/Ha) Seed treatment – Rhizophos Spraying of di ammonium phosphate Foliar spray of pulse wonder @ 5 kg/ha Foliar spray – PPFM IPDM practices	4	4	0	10	10	Nil
12	Vegetables	Irrigated	Rabi 2015-	Drum stick	Local	---	Promotion of ICM practices	Ecological pest management practices viz.., Cultural-removal of affected fruits, Fish meal trap	4	4	0	10	10	Nil

			16				for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	20No/Ha Biological –Soil ragging and application of *Baevaeria bassiana* 5Kg/Ha Botanical-Spray of Neem soap – 2.5 kg /ha						
13	Vegetables	Irrigated		Banana with Dolichos bean	(Co – 14)	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Introduction of Dolichos bean as an intercrop in Banana plantation with ICMP	4	4	3	7	10	Nil
14	Vegetables	Irrigated	Rabi 2015-16	Coconut	Local	---	Promotion of ecological pest control measures and organic farming techniques	Introduction of Banana, Lab lab as mixed crops in coconut plantation	4	4	0	10	10	Nil
15	Vegetables	Irrigated	Rabi 2015-16	Sweet corn	Suruchi	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Demonstration on sweet corn (variety Priya Source-DMR,2002) cultivation Grading, packing, Labeling and marketing	---	---	6	4	10	Nil
16	Fish			Fish	Katla, Rogu	---	Promotion of inland freshwater fish cultivation in village ponds	Rearing of advanced fry /fingerlings at higher stocking density (2-3 lakhs/acre) fed with natural feed for 10-12 months Stocking the stunted yearlings @ 2000 nos./ acre in main pond results in vigorous growth within 6-7 months	1	1	0	3	3	Nil
									3	37	96	72	168	

5A. 1. Soil fertility status of FLDs plots during 2015 – 16

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety / breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
1	Cereals	Irrigation	Rabi 2015-16	Paddy	TPS – 5	---	Introduction of high yielding , improved crop varieties in agriculture and horticulture	ICMP in Paddy TPS – 5 (TNAU 2014) duration 118 days Short bold (Y – 6.3 t/ha) INM - Application of organic manures 12.5 t of FYM or compost or green manure is raised @ 50 kg seeds /ha. Bio fertilizer application Application of inorganic fertilizers – NPK 150 : 50 : 50 Application of zinc sulphate 25 kg /ha IWM - Pre-emergence herbicides - Butachlor 1.25kg/ha IPDM Practices.	194	10.4	492	Green gram
2	Pulses	Rain fed	Rabi 2015-16	Black gram	VBN (Bg) – 6	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Seed – VBN(Bg) – 6 (TNAU, 2011) (crop duration 65 days, Potential yield-850kg/ha) Line sowing /sowing with seed cum fertilizer drill and weeding by twin hoe weeder Pulse wonder foliar spray	178	10.2	538	Black gram
3	Pulses	Irrigated	Rabi 2015-16	Rice fallow Black gram	ADT (Bg)-3	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	ICMP to black gram ADT – 3 (duration -70 days) yield – (720kg/Ha) Seed treatment – Rhizophos Spraying of di ammonium phosphate Foliar spray of pulse wonder @ 5 kg/ha Foliar spray – PPFM IPDM practices	204	18.6	446	Paddy
4	Pulses	Rain fed	Rabi 2015-16	Green gram	Co (Gg) – 8	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Seed – CO(Gg) – 8 (TNAU,2011) (Synchronized Maturity, Y- 882 kg/ha , duration 60-65 days) Line sowing with seed cum fertilizer drill. Setting up of pheramone trap (5/acre), NPV spray @ 100ml /Acre	192	11.4	524	Paddy
5	Cereals	Irrigated	Rabi 2015-16	Paddy	ASD – 16	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	IPM practices includes release of *Trichogramma japonicum* egg card @ 1.5cc/ha (stem borer) Release of *T.chilonis* egg card @ 1.5 cc/ ha (For Leaf folder) Neem soap spraying @three times 2.25 kg/ha Cartop hydro chloride - 1.250g/ha (need based)	185	10.6	520	Cotton
6	Fruit	Irrigated	Kharif 2015-16	Banana	Robusta	---	Promotion of ICM practices for major crops	Integrated practice includes Field sanitation Sucker treatment with Carbandazim (10gm/10 lit of	197	11.2	420	Black gram

							like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	water) Application of *Pseudomonas flourosence* @50 kg along with Neem cake @300 Kg/Ha Adoption of proper spacing Spraying of Propiconozole @3gm/lit-3 spray Corn injection with Carbandazim (10gm/10 lit of water) – 3 times				
7	Vegetables	Irrigated	Rabi 2015-16	Drumstick	PKM-1	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Ecological pest management practices viz.., Cultural-removal of affected fruits, Fish meal trap 20No/Ha Biological –Soil ragging and application of *Baevaeria bassiana* 5Kg/Ha Botanical-Spray of Neem soap – 2.5 kg /ha	162	19.2	628	Drumstick
8	Vegetables	Irrigated	Rabi 2015-16	School Garden	---	---	Ensuring nutritional security of farm women and children through Kitchen gardening, storage and healthy cooking habits	Establishment of nutrition Garden in Schools and Anganwadi centers Effective usage of school campus & Establishment of vermicompost unit	168	10.6	370	Coconut
9	Plantation Crops	Irrigated	Rabi 2015-16	Coconut	-	-	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Introduction Banana, Lab lab as mixed cropping in coconut plantation	165	17.7	610	Coconut
10	Vegetables	Irrigated	Rabi 2015-16	Sweet Corn	---	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Demonstration on sweet corn (variety Priya Source- DMR,2002) cultivation Grading, packing, Labeling and marketing	185	12.2	534	Black gram
11	Fruit & Vegetables	Irrigated	Rabi 2015-16	Banana & Dolichos Bean	---	---	Promotion of ICM practices for major crops like Paddy, Banana, Chilli, Maize, Black gram, Green gram, Tomato, Onion and Cotton	Introduction of Dolichos bean as an intercrop in Banana plantation with ICMP	192	14.2	452	Banana

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 (Qtl/ha)				% Yield 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										
Paddy	Demonstration on Paddy TPS (R) – 5 in Thamirabarani River Command area	TPS (R) -5	---	Irrigated	10	4	83.2	61.9	71.6	58.4	22.67	41135	86034	44799	2.08	42645	70130.4	27485.4	1.6
Black gram	Demonstration On Black Gram[VBN – 6] with ICMP Practices	VBN (Bg)-6	---	Rain fed	10	4	8.97	6.9	7.86	6.26	25.56	24040	66017.5	41977.5	2.74	23797	53227	29430	2.23
Green Gram	Demonstration On Green gram[CO – 8] in Dry Land Farming	Co (Gg)-8	---	Rain fed	10	4	9.97	7.92	8.70	6.79	28.06	23945	43525	19580	1.81	21455	33990	12535	1.59
Paddy	Demonstration on IPM in Paddy to contain Stem borer and Leaf folder	ASD (R) -16	---	Irrigated	10	4	79.83	52.36	68.04	47.30	38.12	42225	88455.9	46230.9	2.09	41130	61493.9	20363.9	1.49
Banana	Demonstration on Integrated Disease management in Banana	Robusta	---	Irrigated	5	2	58.1	56.75	57.30	50.22	14.09	105300	324240	218940	3.08	103200	301320	198120	2.92
Vegetables	Demonstration of Nutrition Garden in Schools	Nutrition Garden	---	Irrigated	10	---	240	151	194.3	---	---	1884	3886	2002.4	2.05	---	---	---	---
Black gram	Demonstration On Rice Fallow Black Gram cultivation in River Command Area	ADT (Bg) – 3	---	Rice Fellow	10	4	Maturity Stage			**On Progress**									

Drumstick	Demonstration on Ecological pest control in drumstick	PKM-1	---	Irrig ated	10	4	**On Progress** Since the organic insecticide sprayed as preventive control measure, the leaf caterpillar problem is effectively controlled in demo plots where as it was noticed in control plots.
Banana & Dolichos bean	Demonstration on Inter cropping in Banana with Dolichos bean (CO 14)	Co – 14	---	Irrig ated	10	4	**On Progress** Banana – 6-7months old, bunch emerging stage Dolichos Bean – nearing completion, final harvesting stage
Coconut	Demonstration On Mixed Cropping System In Coconut Plantation	T X D	---	Irrig ated	10	4	**On Progress** **Coconut -** 15 years and above, yielding nuts regularly **Banana -** 6-7months old, bunch emerging stage
Sweet Corn	Demonstration on Sweet corn cultivation	Surichi	---	Irrig ated	10	4	**On Progress** Maturity Stage

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

** BCR= GROSS RETURN/GROSS COST / H – Highest Yield, L – Lowest Yield A – Average Yield

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Check if any**	**Demo**
Demonstration on Paddy TPS (R) – 5 in Thamirabarani River Command area		
Hills / m2	18.5	16
Productive Tiller / Hill	13.7	18.6
Grains / Panicle	121.1	131.4
1000seed weight (gm)	20.3	20.4
Yield / ha in Ton	5844.2	7169.5
Demonstration of Black gram[VBN (Bg) – 6]		
Plant /m2	16.5	20.4
No. of Pods / Plant	21.6	27.2
No. of Seeds / Pod	4.4	4.7
Yield / ha in qtl	6.45	7.86
Labour days taken for sowing and weeding /ha	35	6
Weed DMP (30^{th} Day) / m^2	10.5	10.9
Weed DMP (50^{th} Day) / m^2	7.8	7.5

Demonstration On Green gram[CO – 8] in Dry Land Farming		
Plant population /m2	14	16.5
No .of pods / plant	21.6	32.6
No. of seeds / pod	10.4	11.6
Yield / ha (Kg)	679.8	870.6
Labour days taken for sowing and weeding /ha	30	4
Demonstration of IPM in Paddy to contain Stem borer and Leaf folder		
Hill /M 2	17	17.9
Productive tiller /Hill	13.7	17.9
Grain / panicle	114.4	125.6
1000 grain weight (g)	20.3	20.4
Leaf folder tillering stage affected leaf /m2	15%	10 %
Leaf folder booting stage affected leaf / m2	12 %	12%
Stemborer – head heart %	12 %	8 %
Stem borer – White ear %	5%	2 %
No of pesticide spray	5	1
Yield /ha (kg)	4730.3	6804.3
Demonstration on Integrated Disease management in Banana - Robusta		
Wilt affected plant at 3rd month (%)	17	10
Wilt affected plant at 5th month (%)	26	7
Wilt affected plant at 7th month (%)	27	5
Bunch Yield t/ha	50.22	54.04
Demonstration of Nutrition Garden in Schools		
Vegetables availability – no of days /yr / 2 cent	0	75
Amount saved from the garden (Rs)	0	1625
Increase in quantity of vegetable consumption / in kg	0	194
Vegetable yield / harvest /2 cent / day in kg	0	2.5
Nutritional knowledge of students (%)	64	83.5
Nutritional knowledge of Teachers (%)	76	95
Composting knowledge of students (%)	25	78
Composting knowledge of Teachers (%)	75	90
Demonstration on Rice fallow black gram ADT (Bg) – 3		
Duration	75-80 days	75 days
Date of sowing	15.3.16 to 19.3.16	15.3.16 to 19.3.16
No of plant /m2	10.7	14
No of pods /plant 60th day immature pods	10.8	14.9
YMV incidence	17.3	10.8
Demonstration on ecological eng. Pest management in drumstick		

No of plant /ac	910	935
Operation carried out	Nipping completed	Nipping completed
Plant height	80-95	90-100 cm
Pruning	July 3rd	July 3rd
Leaf cater pillar incidence %- (vegetative phase)	10.8	Nil
Demonstration on Inter cropping in Banana with Dolichos bean (CO 14)		
Days to germinate	Nil	3.5days
Days to 1st flowering	Nil	39.2
Number of pods/cluster	Nil	11.6
Pod length cm (Average)	Nil	12.4
Pod width cm(Average)	Nil	2.6
No of harvest (upto 90 days) Ave	Nil	9.5
Mixed cropping in Coconut with Banana and CO 14 lab lab		
Days to germinate	Nil	3-4days
Days to 1st flowering	Nil	38-41days
Number of pods/cluster	Nil	8-11
Pod length cm (Average)	Nil	12.5
Pod width cm(Average)	Nil	2.4
No of harvest (upto 90 days) Ave	Nil	9.0
Demonstration on Sweet corn cultivation		
Plant / M2	Nil	6.9
No of Cob / plant	Nil	1.3

5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Milk Yield (lit/day)				% Increase	*Economics of demonstration thousand Rs./unit)				*Economics of check (thousand Rs./unit)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Dairy Cow	Demonstration for improvement of profitability in High yielding cross bred Dairy cows		15	1	3050	2580	2832	2525.33	12.18	41725	70800	29075	1.69	39650	63133.33	23483.3	1.59
Dairy Cow	Demonstration for improvement of profitability in Low yielding cross bred Dairy cows		20	1	2897	1464	2209.73	1967.25	12.70	29425	55243.13	25818.13	1.87	28975	49181.25	20206.50	1.69
Sheep	FLD On Scientific Management And Comprehensive Disease Control Practices In Sheep Rearing		10	100						124695	208000	83305	1.66	120500	147320	26820	1.22
Goat	Demonstration on Mineral lick feeding to enhance body weight gain in Goat kids		20	10						5000	24878	19878	4.97	4800	19439	14639	4.04

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

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Check if any**	**Demo**
Demonstration for improvement of profitability in High yielding cross bred Dairy cows		
Days required for post partum 1st oestrum	57.4	46.8
No. of inseminations required for conception	3.13	1.90
305 day milk yield in liters	2525.33	2832.00
Increase in yield		306.6
Increase in yield in %		12.18
Demonstration for improvement of profitability in Low yielding crossbred Dairy cows		
Days required for post partum 1st oestrum	54.15	43.50
No. of inseminations required for conception	3.05	1.85
305 day milk yield in liters	1967.25	2209.75
Increase in yield		242.75
Increase in yield in %		12.70

FLD On Scientific Management And Comprehensive Disease Control Practices In Sheep Rearing		
Number of lambs born/unit	84.7	98.5
Weaning percentage (%)	75.71	95.42
Weaning weight (kg)	9.74	10.67
Mortality due to infectious diseases (%)	16.92	0
Mortality due to non infectious diseases (%)	7.35	4.57
Net return per ewe	268.2	833.05
No. of lambs weaned	64.2	94.0
No. of lambs died due to infectious disease	14.3	0
Mortality due to non infectious disease	6.2	4.5
No. of adults died due to infectious diseases	11.8	0
No. of adults died due to non-infectious diseases	2.8	2.6
Demonstration on Mineral lick feeding to enhance body weight gain in Goat kids		
Birth weight in kg	1.80	1.82
Weaning weight in kg	7.26	7.84
Mortality due to enteritis in kids / unit	1.7	0.4
Net return per goat per annum	3659.75	4969.50
No. of kids born/unit	9.35	9.45

5.B.3. Fisheries

Type of Fish	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Milk Yield (lit/day)				% Increase	*Economics of demonstration thousand Rs./unit)				*Economics of check (thousand Rs./unit)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Fish	Demonstration Of Composite Fish Culture With Stunted Fish Yearlings		10	1	4th Month Stage				**On Progress**								

* 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: NA – Not applicable as there was no check

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**
Demonstration Of Composite Fish Culture With Stunted Fish Yearlings	Body weight during stocking	15.7 gm / fish	
	Body weight as on 4 months	491 gm / fish	

5.B.4. Other enterprises – Nil

5.B.5. Farm implements and machinery – Nil

5.B.6. Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	3	44	Conducted to disseminate technology to wider section
2	Farmers Training	34	596	
3	Media coverage	25	Mass	
4	Training for extension functionaries	5	135	
5	Others (Please specify)			

5.B.7. Results of Integrated Farming system Demonstrations – Nil

Sl.no.	Name of the farmer and village	Farming situation	Existing or newly added	Crop /enterprise	Area in ha	unit size	Economics of IFS model				Remarks
							Gross expenditure in Rs.	Gross income in Rs.	Net return in Rs.	BCR	

Summary of IFS implemented during 2015 – 16 – Nil

Sl.no.	Name of the farmer and village	Farming situation	Crop /enterprise	Area in ha	Economics of IFS model			
					Gross expenditure in Rs.	Gross income in Rs.	Net return in Rs.	BCR

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 Sweet Corn	Demonstration on Sweet corn cultivation	Suric hi	10	4	**On Progress**												
Paddy																	
Sorghum																	
Wheat																	
Others (pl. specify)																	
Total																	
Oilseeds																	
Castor																	
Mustard																	
Safflower																	
Sesame																	
Sunflower																	
Groundnut																	
Soybean																	
Others (pl. specify)																	
Total																	
Pulses																	
Green gram																	
Black gram																	
Bengal gram																	
Red gram																	
Others (pl. specify)																	
Total																	
Vegetable crops																	
Bottle gourd																	
Capsicum																	
Others (pl. specify)																	
Total																	
Cucumber																	
Tomato																	
Brinjal																	
Okra																	
Onion																	
Potato																	
Field bean																	
Others (pl. specify)																	

Total																		
Commercial crops																		
Sugarcane																		
Coconut																		
Others (pl. specify)																		
Total																		
Fodder crops																		
Maize (Fodder)																		
Sorghum (Fodder)																		
Others (pl. specify)																		
Total																		

H-High L-Low, A-Average

PART VII. TRAINING

7.A.. Training of Farmers and Farm Women including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Tot	M	F	Tot	M	F	Tot
Crop Production										
Seed production	1	3	0	3	0	0	0	3	0	3
Integrated Crop Management	4	34	19	53	16	20	36	50	39	89
Soil and Water Conservation	1	12	0	12	4	0	4	16	0	16
Production of organic inputs	3	36	11	47	11	2	13	47	13	60
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	4	49	30	79	3	0	3	52	30	82
Nursery raising	1	12	11	23	11	16	27	23	27	50
Protective cultivation	1	5	3	8	0	2	2	5	5	10
(Others) Terrace Garden	1	7	6	13	0	8	8	7	14	21
b) Fruits										
Cultivation of Fruit	3	57	20	77	20	10	30	77	30	107
Management of young plants/orchards	1	3	15	18	0	0	0	3	15	18
Jasmine Cultivation	1	5	0	5	4	9	13	9	9	18
Livestock Production and Management										
Dairy Management	4	17	39	56	3	44	47	20	83	103
Poultry Management	5	46	37	83	15	13	28	61	50	111
Others – Goat Management	2	16	0	16	2	0	2	18	0	18
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	4	41	39	80	32	42	74	73	81	154
Value addition	8	38	60	98	13	23	36	51	83	134
Plant Protection										
Integrated Diseases Management	1	5	0	5	0	0	0	5	0	5
Bio-control of pests and diseases	1	12	8	20	0	0	0	12	8	20
TOTAL	**46**	**398**	**298**	**696**	**134**	**189**	**323**	**532**	**487**	**1019**

7.B Training of Farmers and Farm Women including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Tot	M	F	Tot	M	F	Tot
Crop Production										
Seed production	3	46	58	104	13	11	24	59	69	128
Integrated Crop Management	6	89	19	108	16	16	32	105	35	140
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	2	17	3	20	0	3	3	17	6	23
Off-season vegetables	4	36	3	39	12	1	13	48	4	52
Nursery raising	2	24	16	40	16	10	26	40	26	66
b) Fruits										
Inter Cropping	2	10	6	16	20	4	24	30	10	40
d) Plantation crops										
Production and Management technology	1	0	0	0	10	3	13	10	3	13
Livestock Production and Management										
Dairy Management	2	27	8	35	0	0	0	27	8	35
Animal Nutrition Management	2	60	64	124	0	0	0	60	64	124
Animal Disease Management	2	34	27	61	0	0	0	34	27	61
Others Sheep Management	1	6	0	6	0	0	0	6	0	6
Home Science/Women empowerment										
Designing and development for high nutrient efficiency diet	1	0	28	28	0	0	0	0	28	28
Value addition	2	32	0	32	17	28	45	49	28	77
Women empowerment	1	0	43	43	0	24	24	0	67	67
Rural Crafts	2	0	19	19	0	25	25	0	44	44
Plant Protection										
Integrated Pest Management	2	10	6	16	10	6	16	20	12	32
Others – Integrated Pest and Disease Management	2	26	2	28	0	0	0	26	2	28
TOTAL	**37**	**417**	**302**	**719**	**114**	**131**	**245**	**531**	**433**	**964**

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		
		M	F	Tot	M	F	Tot	M	F	Tot
Integrated farming	2	40	1	41	5	15	20	45	16	61
Value addition	2	10	12	22	0	9	9	10	21	31
TOTAL	**4**	**50**	**13**	**63**	**5**	**24**	**29**	**55**	**37**	**92**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Tot	M	F	Tot	M	F	Tot
Nursery Management of Horticulture crops	1	10	0	10	7	0	7	17	0	17
Any other – Food Security through nutritional school garden	1	8	7	15	18	12	30	26	19	45
TOTAL	**2**	**18**	**7**	**25**	**25**	**12**	**37**	**43**	**19**	**62**

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		
		M	F	Tot	M	F	Tot	M	F	Tot
Protected cultivation technology	1	22	12	34	6	0	6	28	12	40
Women and Child care	1	2	12	14	0	13	13	2	25	27
Information networking among farmers	2	13	20	33	3	0	3	16	20	36
Any other – Climate and Environment	1	4	20	24	0	8	8	4	28	32
Total	**5**	**41**	**64**	**105**	**9**	**21**	**30**	**50**	**85**	**135**

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

7.G. Sponsored training programmes conducted

S.No	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			M	F	Tot	M	F	Tot	M	F	Tot
1	**Crop production and management**										
1.a.	Increasing production and productivity of crops	1	24	0	24	8	0	8	32	0	32
1.b.	Commercial production of vegetables	2	37	29	66	0	0	0	37	29	66
2	**Production and value addition**										
2.a.	Package of practices for major Fruit crops and organic pest and diseases control measures	1	24	12	36	20	10	30	44	22	66
3	**Livestock production and management**										
3.a	Animal Nutrition Management	1	46	62	108	0	0	0	46	62	108
3.b	Animal Disease Management	1	20	20	40	0	0	0	20	20	40
3.c	Poultry Rearing	1	26	21	47	0	0	0	26	21	47
3.d	Dairy Farming	2	0	34	34	3	44	47	3	78	81
4	**Home Science**										
4.a	Household nutritional security	2	20	30	50	26	32	58	46	62	108
	Total	**11**	**197**	**208**	**405**	**57**	**86**	**143**	**254**	**294**	**548**

Details of sponsoring agencies involved

1. ATMA Tuticorin
2. Coconut Development Board, Chennai
3. Department of Horticulture, Animal husbandry, Marketing, ICDS of Tuticorin, SCAD

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		
			M	F	Tot	M	F	Tot	M	F	Tot
1	**Crop production and management**										
1.a	Friends of coconut training										
2	**Post harvest technology and value addition**										
2.a	Value addition	1	8	3	11	12	2	14	20	5	25
3.	**Livestock and fisheries**										
3.a	Dairy Farming	1	0	20	20	3	24	27	3	44	47
	Sheep and goat rearing	1	15	5	20	0	0	0	15	5	20
	Poultry farming	2	0	14	14	20	28	48	20	42	62
	Others – IFS	1	23	1	24	5	1	6	28	2	30
	Grand Total	**5**	**46**	**43**	**89**	**40**	**55**	**95**	**86**	**98**	**184**

PART VIII – EXTENSION ACTIVITIES

Extension Programmes (including extension activities undertaken in FLD programmes)

Sl. No	Activity	No. of Prog	No. of Beneficiaries			No. of Extension Officials		
			M	F	Tot	M	F	Tot
1	Advisory Services Enquire	5	582	214	796	18	12	30
2	ATMA Meeting	26	170	137	307	0	0	0
3	Celebration of important days (Women's day)	2	23	182	205	4	7	11
4	Clean India	2	26	42	68	8	4	12
5	Exhibition	2	74	55	129	8	2	10
6	Extension Literature developed / distributed	4	1600	1200	2800	0	0	200
7	Farmers meeting	34	489	134	623	0	0	0
8	Field Day	3	28	16	44	2	1	3
9	Field Visit	254	1582	1227	2809	0	0	0
10	Film Show as part of the training programme	12	311	270	581	50	85	135
11	Jai Kisan Jai Vigyan Diwas (Farmers Mela)	5	278	86	364	12	6	18
12	Lectures delivered as resource persons	26	456	206	662	12	7	19
13	Method Demonstrations	11	41	27	68	4	2	6
14	Newspaper coverage	24	0	0	0	0	0	0
15	PLF Meeting	14	0	383	383	2	7	9
16	Popular articles	1	0	0	0	0	0	0
17	PRA	2	51	9	60	1	1	2
18	Publications (News Letter)	1	0	0	0	0	0	0
19	Research article	1	0	0	0	0	0	0
20	Scientific visit to farmers field	145	723	512	1235	3	1	4
21	Self Help Group Conveners meetings	54	0	931	931	0	12	12
22	TV /Radio talks	1	0	0	0	0	0	0
23	Rural Veterinary camp	9	25	76	101	0	0	0
TOTAL		**638**	**6459**	**5707**	**12166**	**124**	**147**	**471**

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 (Kg)	Value (Rs)	Unit Cost Rs.	Number of farmers to whom provided
Vegetables	Seed Packet (No)			712	10400	15	435
Fodder crop seeds	Fodder sorghum	Co -29		11.75	3975	351.50	12
	Azolla			239.5	5900	25	224
	Napier hybrid	Co – 4		3800	3800	1	6
Total				**4763.25**	**24075**		**677**

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
Fruits	Custard Apple	Bala Nagar		24	755	15
	Guava	L – 49		825	28566	85
	Jack Fruit	Bala		116	3245	18
	Jamun	Ram Jamun		23	935	16
	Acid Lime	Vikram		175	7000	21
	Mango	Neelam		514	17203.75	111
	Mango	Root Stock		2	30	2
	Pomegranate	Ganesh		33	990	15
	Sapota	Cricket Ball		163	5780	58
	Papaya	Local		4	50	2
	Orange	Sathukudi		107	4815	23
	Anola	NA-7		148	4955	40
Ornamental plants	Coleus	Local		3	75	2
	Crotons	Local		8	225	5
	Duranta	Local		129	916	7
	Ixora	Local		4	115	4
	Musanda	Mini		2	70	1
	Polyalthia	Local		155	3100	5
	Acalipha	Local		7	70	3
	Alamenda	Local		2	60	1
.	Aralia	Local		6	170	4
	Dracina	Local		6	175	4
	Eranthima	Local		3	30	1
	Pedilanthus	Local		10	100	1
Plantation crops	Coconut	Tall		80	3448	19
Species	Curry leaf	Local		38	452	14
	Tamarind	PKM – 1		24	960	4
Medicinal plants	Neem	Local		14	140	7
Forest Species	Azolla	Local		220	5500	220
	Teak	Local		1	20	1
Flower crops	Chrysanthemum	Local		4	80	3
	Jasmine	Local		159	2253	38
	Ixora	Local		4	100	3
	Rival Rani	Local		6	210	3
Paddy seedlings	Paddy	ASD -16		50,000	3100	2
Total				**53019**	**95693.75**	**758**

9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity in qtl	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers	Azospirillum	0.82	4100	92
	Azophos	2.032	10150	165
	Phosphobacteria	0.236	1180	35
	Rhizopos	1.896	9480	161
Bio-fungicide	Pseudomonas	0.836	6688	72
	T.viridi	0.428	3424	36
	Vermicompost	5.88	5880	125
Others (specify)	Bio – char	0.84	336	30
	EMA (in lit)	845	50700	230
	Slurry (in lit)	248	7440	123
	Salt Lick	1.15	7475	97
Total			**106853**	**1166**

9.D. Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Poultry				
Chicks (Young one)	NKM – 1	1156	77180	306
Cock & Hen	NKM – 1	246.15	36918	58
Chick Egg	NKM – 1	953	7663.5	152
Chick Egg	Kadaknath	38	552	9
Japanese Quails		1555	52673	323
Japanese Quails Egg		4109	8218	129
Total		**8057.15**	**183204.5**	**977**

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

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

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

(B) Literature developed/published

Item	Title	Authors name	Number
News letters	Vealan Thunaivan	All Staff	5000
Others (Pl. specify) paper news			
TOTAL	**11**		

10.B. Details of Electronic Media Produced – Nil

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)

10. C.1 Mushroom cultivation - An ideal entrepreneurial venture

Background

Commercial production of edible Mushrooms converts the agricultural, industrial, forestry and household wastes into nutritious food (Mushroom). Indoor cultivation of oyster mushrooms utilizes the vertical space and is regarded as the highest protein producer per unit area and time – almost 100 times more than the conventional agriculture and animal husbandry. This high tech horticulture venture has a promising scope to meet the food shortages without undue pressure on land. Considering this vital point, KVK has taken up the mushroom cultivation-training program to farmers and rural youth in a larger way.

Intervention Process

Mr. A. Arul Doss (48) of Keela surandai is regularly attending our on campus training program on Oyster mushroom cultivation and value addition from 2014 onwards and he has inspired upon this aspect. He approached us frequently for training on mushroom cultivation and we have imparted intensive practical training on Oyster mushroom Cultivation and its value addition. Under our guidance, he established a Mushroom unit of 20'x10'x8' size in a small scale. He invested Rs. 50000/- as fixed capital to start the Mushroom unit and spent nearly Rs. 10000/- as working capital for purchasing hay, spawn, packing covers etc. We also ensured him to get quality spawn. Initially he struggled to market oyster mushroom as most of the people are not aware about the importance of (medicinal and nutritional value) oyster mushroom. We constantly encouraged him by guiding and helping in marketing aspects.

Intervention Technology

- Conducting On and Off campus training on Oyster mushroom cultivation and its value addition
- Marketing strategies and tie up
- Motivation and encouragement to establish Mushroom unit

Challenges and Scope in Oyster Mushroom

Mr. Arul doss shared his experience that during Diwali and other festival time the people have the habit of consuming non-vegetarian food. During that period, he found difficult to market the fresh oyster mushrooms. Therefore, he forced to think about value adding his produce. He thought of dehydrating the oyster mushrooms but again he found difficult to market locally as it becomes still costlier after drying. Finally, with small margin he started producing mushroom pickles as a value added product in a small scale of 5Kg/week.

Through KVK technical guidance and support, he standardized the mushroom pickle product and started selling along with fresh mushrooms. Initially the people were reluctant to buy the mushroom pickles. However, after tasting the product they came forward to purchase the mushroom pickles. Even though they fetched low margin of Rs.30/Kg, they were able to value-add otherwise these mushrooms would have wasted. The left over mushroom beds are value added as live stock feed and compost.

Impact on Horizontal Spread

Meanwhile on seeing the success, he also motivated five rural youths from his village namely Mr.Pratheep Kumar, Mr.Moorthi, Mr.Sankaralingam, Mr.Subramanian and Mr.Vellapan for oyster mushroom cultivation. Mr. Aruldoss brought these five people for mushroom cultivation training to KVK and helped them in establishing their own mushroom unit. Now they are jointly selling their produce locally through door-by-door sales for regular consumer, retail vegetable shops, WSHG's, Uzhavar Santhai etc.

They coined their group name and brand name as Royal. They have a plan to form Joint Liability Group to get financial assistance from bank to upgrade their enterprise. Through our initiative, all the five members along with Mr. Arul Doss are running their mushroom units successfully with our continuous technical support and marketing tie up. Because of their interest and involvement, they get more profit and this helps to sustain their venture even in critical situations. On seeing this success, many of the un employed rural youth and women SHG members got motivated and wanted to start a mushroom unit at their end.

Impact on Economic Gains

At present, he gets mushroom yield on an average of 800gm to 1kg per bed of 12"x24" cover size. He maintains 250 to 300 bags in his mushroom shed. Along with his other farm work he able to grow and market the mushrooms as supplementary income. Out of this mushroom cultivation, he earns Rs 10,000 to 12,000 per month as profit. In addition to this he also earns Rs. 600/month through mushroom pickle and he earn Rs. 3750/month additionally by selling vermicompost.

Impact on Employment Generation

The Royal group members spend only 2 to 3 hrs per days in preparing the mushroom beds, watering and harvesting the mushrooms. Employment generation was created for about 120 – 150 man-days per year per individual through mushroom cultivation and its value addition.

10. C.2 Coconut tree climbing device –A machine for the rural youth as self-employment tool

Background:

Coconuts are being cultivated in larger areas in Thoothukudi district. But the coconut growers are finding it very difficult to find tree climbers for harvesting and other crown cleaning works. Even if they find somebody to do the works, they are demanding Rs,100/-per tree. This seriously affects the increase in area under coconut.

Intervention:

At this juncture, the coconut tree-climbing device has come as a tool to the coconut growers. Considering the importance of this device and the coconut grower problem, Krishi Vigyan Kendra of Thoothukudi, supported by Indian Council of Agriculture Research (ICAR), conducted 5 coconut tree climbing training programmes from 2013-2015. All these training programmes were conducted in collaboration with Coconut Development Board, Chennai and trained 500 farmers, unemployed rural youths on coconut tree climbing technique using the coconut tree-climbing device. The beneficiaries from Srivaikundam, Kalkumi, Siruthondanallur, Thathankulam, Kulaiyankarisal and Kootampuli region participated and benefitted by the training.

Intervention Technology:

On campus training and method demonstration on usage of Coconut tree-climbing device

Impact on Horizontal Spread:

After seeing the training and the devices 300 more farmers have interested to take up the training in 2016–17.

Impact on Economic gain

All the 20% of the trained beneficiaries are getting Rs.500 – 600 / day by using the devices and the coconut growers are saving Rs. 40 – 50 / tree, incurred earlier for tree climbers.

Impact on Employment generation

The following 20 members are getting five days of work / week and earning Rs. 500 – 600/ day as their income. Rest of this trained members are engaged in an average of 7 to 10 work days and using this device in their own plantation.

The successful beneficiaries started coconut climbing as an enterprise

S. No	Name of The Beneficiary	Name Of The Village
1	K.Perumal	Killakulam
2	R.Alugumurugan	Killakulam
3	C.Murugan	Thathankulam
4	C.Nagalingam	Thathankulam
5	S.Muthuraman	Srivaikundam
6	S.Selvakumar	Srivaikundam
7	S.Lashmanan	Eral
8	K.Santhanakumar	Kalkumi
9	R.Vettuperumal	Kalkumi
10	I.Esravel	Kalkumi

11	K.Selvakumar	Kudampuli
12	I.Jayakumar	Kulayankarisal
13	J.Iyyadurai	Siruthundanallur
14	S,Ramesh	Siruthundanallur
15	C.Pouldurai	Vilathikulam
16	L.Johnsamuvel	Nanguneri
17	V.S.Selvakumar	Ettayapuram
18	M.Poonmuthu	Thiruvarangapatti
19	K.Petchimuthu	Mudivaithananthal
20	D.Iyysamy	Thoothukudi

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

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) – Nil

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

- **Identification of courses for farmers/farm women**
  Farmers/ Farm women group meeting
  Individual discussion
  Village survey
  SAC meetings
- **Rural Youth**
  Individual discussion
  Village survey (PRA)
  SAC meetings
- **In service personnel**
  Discussion with line dept. officials
  SAC meetings

10. G. Field activities

i. Number of villages adopted - 06
ii. No. of farm families selected - 630
iii. No. of survey/PRA conducted - 2

10. H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Functioning well

1. Year of establishment : 2005
2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1	pH meter	1	9850
2	Ec meter	1	9950
3	Spectrophotometer	1	59500
4	Flame photo meter	1	48000
5	Precision balance	1	99500
6	Top pan balance	1	98000
7	Water distillation unit	2	98000
8	Shaker	2	49000
9	Hot air Owen	1	14000
10	Hot plate with stirrer	1	22000
11	Kjeldhal digestion and distillation unit	2	59000
12	Nitrogen auto analyzer with Digestion block	1	202932
13	Willie mill	1	26000
	Total	**16**	**795732**

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	108	62	41	6340
Water Samples	81	49	44	2740
Plant samples	0	0	0	0
Manure samples	0	0	0	0
Others (specify)	0	0	0	0
Total	**189**	**111**	**85**	**9080**

10.I. Technology Week celebration during 2015 – 16 : No

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

Not included in this special programme

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	Impact Before	Impact After
Cattle feed preparation from Prosopis Juliflora pods	60	35	P.juliflora pods were eaten directly under the trees by the grazing animals and most bulk of the pods were allowed to rotten under the trees as such. Direct consumption also resulted in fast spread of the weed in manure applied fields. High cost of concentrate feed ingredients like wheat bran resulted in reduced profitability in dairy farming	14 tones of pods were collected during the year 2015-16 and milled to coarse powder form and sold as alternative concentrate feed ingredient to replace wheat bran to 55 farmers. This unit also resulted in providing employment to about 24 pod collectors and 6 processing assistants to about 60 days during hot summer when no agriculture work was available to them.
Vaccinating the backyard poultry against Ranikhet disease	120	95	95 % mortality in desi birds due to Ranikhet disease was the predominant problem as stated by the poultry growers in this village	After the training on Vaccination methods to one farmer he started doing vaccination to his neighbors and taught the technology to rural youth(8 numbers) in nearby area and it has spread to the entire village and sent percent coverage was achieved by this model and resulted in no outbreak of Ranikhet disease in this village for the past 5 years
Rearing desi/cross bred chickens	120	85	Out of the 355 trainees who underwent the poultry training only 20 % of them were already adopted the desi bird rearing practice.	Out of the 355 trainees who underwent the poultry training in KVK 80 % of trainees adopted the backyard poultry rearing practices as an entrepreneurial activity during the year 2015-16
Desi Chick production using homestead incubators and sales of chicks	120	20	No small scale hatchery was available prior to 2012-13 in these villages Ã¢â‚¬â€œ So they were not able to get the chicks in time	Out of the 355 trainees who underwent the poultry training at KVK 41 trainees started producing the chicken either by the help of brooding desi chicken or by homestead incubators in this region resulting the availability of about 4000 chicks every year
Use of mineral lick feeding to goat	50	30	No mineral lick feeding so the deficiencies related ill thrift and infertility problems were the common phenomenon.	Those who adopted reported that it resulted in better growth performance of the kids and reduced mortality among them
Goat kid rearing and protection measures against chill and damp weather	50	75	No proper protection measures against chill and damp weather resulted in heavy mortality in kids upto 50 percent	Those who adopted reported that it resulted in better growth performance of the kids and reduced mortality among them
Regular Vaccination and Deworming to the goat	50	95	No proper protection measures against diseases and endo and ecto parasites resulted in heavy mortality in goats upto 45%	Proper and regular preventive practices resulted in better survival rate of the goats
Fodder seed production (CN hybrid , Fodder sorghum)	60	55	No fodder seed producer in these villages prior to KVK intervention	6500 kg of fodder seed were produced and 1250 kg fodder shorghum seed produced and supply to TANUVAS and UAS, Bangalore, KAU Karnataka
Green Fodder cultivation	60	65	No green fodder was cultivated prior to KVK intervention in this village	Out of the 20 farmers trained 13 farmers have adopted green fodder cultivation and continue to grow till date to feed their cattle and goat
Mineral mixture feeding to dairy cows	60	85	Mineral mixture feeding is not known to these 36 dairy farmers	Out of the training and demonstration by KVK 30 farmers started adopting the practice of mineral mixture feeding to their dairy cows which resulted in better fertility and production from their cows
Value addition on millets	70	42	Lack of awareness about the consumption and preparation of millet products	Out of training and demonstration by KVK 42% of the farm women started consuming millet products (nutri mix, laddoo, dosa mix etc) and they started preparing millet products in a small scale
Kitchen garden	140	65	Under utilization of backyard. Poor consumption of fresh vegetables.	Those who adopted reported that they were able to access for fresh vegetables and greens. Able to save money instead of

				buying vegetables for huge price.
Supply of nutri mix to underweight mothers and malnourished children	220	85	before intervention 68% of children birth weight is more than 2.5 kg. Mothers Weight is 49%. Prevalence of severe stunting (Ht for Age) before intervention is for 15% of children. Prevalence of wasting (Ht for Wt) before intervention is for 11% of children. Prevalence of underweight (Wt for Age) before intervention is for 63%	After intervention 81% of children birth weight is more than 2.5 kg. Mothers Weight is 43%. Prevalence of severe stunting (Ht for Age) after intervention is for 9% of children. Prevalence of underweight (Wt for Age) after intervention is for54% .
Biofertilizer usage in crop production	80	85	Farmers were not aware of the Biofertilizer, their application method, their advantages and the place to purchase	Farmers are well aware of bio fertilizer and regularly applying in the fields. Since the price is very cheap farmers using the Biofertilizer for seed treatment, soil application and seedling dipping
Total Mechanization in Paddy cultivation	40	90	Paddy growers suffered to get laboureres for transplanting, weeding, harvesting operations etc. The major portion of income incurred for labour wage. They could not start paddy cultivation in time	The farmers familiarized in using machineries for all operations so that they could start and complete the paddy cultivation in time.
Use of certified seed in improving the yield in black gram and Green gram	50	75	The farmers used their own seeds continuously thereby they were not able to reap the full potential of yield	Now the farmers are interested in using certified seeds and they discontinued the practice of using their own seeds so that they realize the good yields
Pulses wonder - Foliar application technology	50	80	Previously they were unaware of Pulse wonder and though they knew about DAP spray, they didn't practiced	Now the farmers of this area realized the utility of pulse wonder in improving yield.
ICMP in Co7 Green gram	50	78	The green gram growing is regular phenomenon in vast area during rabi season and the farmers were use low yielding and earlier series of varities like co4, co5 and their own seeds. So their yield was low and sometimes they could reap only the expenditure. The pod borers were the major yield limiting factor.	After importing training and conducting FLD on ICMP in newly released variety like co7 farmers could harvest about 6qtl/ha. They also adopted the IPM practices like application of Neem soap use of pheromone trap and spray of NPV. By these practices they heavily curtailed the cost of pesticides and there by the net income per ha increased considerably. They also preferred the earliness of co7 variety (60 days) and in bold grains
ICMP including mechanization in green gram	50	65	Earlier the farmers were using the old varities like Co4, Co5. Lack of adoption of improved cultivation practices resulted in less income. Labour shortage was also acute and they were not in the position to carry out the field operations in time	Now the farmers are using Co6, Co7 series of varities and they are high yielders. Besides mechanization facilitated them to harvest in time. Even then there is some grain loss in mechanical harvesting they are happy in doing machine harvest. The incidence of pests is also lowered by the adoption of IPM measures
Soil Moisture conservation Crop residues Mulching	30	55	Farmers burnt the waste insitu in the field. Some of the farmers ploughed the waste in the field	The collected waste was spread around the tree crops as mulch to conserve the moisture. Reduced the habit of burning the waste in the field. Some of them are converting the farm waste into vermicompost
Moringa organic pest control methods	30	60	The farmers were resorting series of sprays (one spray /week) to control leaf eating caterpillar and fruitfly. There was heavy incidence and there by severe yield loss (upto 30 %)	By adoption of practices like placing bird perches, neem spray, fruitfly traps (Fermented Grapes) resulted in lesser pest incidence and damage to pods
Disease management in Banana	40	80	The Banana farmers are less aware of deadly disease like Panama wilt, Sigatoka leaf spot, bunchy top etc. In severe cases the farmers faced more than 60 % yield loss due to Panama wilt	Now the farmers are able to identify the diseases and prepared to take prophylactic measures like application of Pseudomonas, removal of affected trees etc. They are using Paecilomyces, neem cake and to manage the nematodes as it act as predisposing factor.
Demonstration of high yielding Drumstick varieties	30	90	The farmers were not aware of high yielding varieties. Cultivated local varieties and experienced less	PKM1 is being grown in wider scale for its green pod and seeds. Ratooning is also very common in moringa cultivation.

			productivity	
Drip and fertigation technologies in Banana	40	55	Farmers irrigated the crop through surface irrigation and often faced the problem of water shotage during the critical period of crop growth. Harvested low yield than the expected level and incurred additional production cost for weeding, drenching and channel formation	Farmers were able to water usage to 35-40% and minimized the cost incurred for channel, basin formation, weeding and labour. Increased the yield by 20-25% due to drip fertigation.
Measures to contain nematode in banana	40	65	The farmers are unaware of nematode management practices concept application of ---. The farmers faced Upto 35% yield loss in banana due to nematode problem	The farmers of this area familiarized in complete management practices to control nematodes. The practices included incorporation of sun hemp as green manure crop, corm treatment with carobofuron application paecilomyces along with FYM , raising marigold as intercrop and proper upkeep of banana garden. The framers realize the usefulness of these technologies in nematode control and now they are approaching us to facilitate the availability of Paecilomyces.
Co 14 lab lab cultivation techniques	28	75	The farmers were unaware of short duration high yielding varieties. The long duration vegetables could not yield the expected level due to water shortage during summer.	10 farmers cultivated Co14 lab lab and registered 3.5-3.8 tonnes of green pod /acre in 85-90 days duration. They were able to fetch 75000to 80000 as net income from the cultivation
High density planting in guava	22	60	Farmers were adopted the conventional spacing of 6x6m spacing which accommodated 111plants per acre. They were not aware of systematic pruning to keep the tree canopy under desired height and shape.	By adopting the closure spacing of 3x2m, the farmers accommodated 666 plants per acre. They were able to maintain the tree canopy under desired height. They used the space, water and soil judiciously.
Tree farming in waste lands	32	75	The farmers left the land as fallow due to labour scarcity and water shortage, They were not able to purchase the quality timber value trees and fruit saplings	Farmers have planted fruit seedlings like guava, Sapota, mango, lemon and timber value trees like Teak, Neem, melia dubia, casuarinas with little care and maintenance. Getting 25-30000/ac as additional income from tree farming

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)

(Note: OFT – O, FLD – F, Training – T, Extension Activities – E)

Discipline	Name of the technology	Source of the technology	How the technology transferred	Spread in Area (acre)	No of farmers
Agronomy	Seed production in paddy (TPS – 5)	TNAU	**F,T,E**	510	427
Agronomy	Seed production in Green gram improved varieties (Co8)	TNAU	**F,T,E**	227	162
Agronomy	Seed production in Black gram improved varieties (VBN 6)	TNAU	**F,T,E**	320	156
Agronomy	Biofertilizer and Biopesticide usage	TNAU	**F,T,E**	1024	842
Agronomy	Organic farming inputs preparation	TNAU	**T,E**	865	624
Agronomy	Soil sampling, testing	TNAU	**T,E**	664	530
Horticulture	ICMP in Banana	TNAU	**F,T,E**	574	291
Horticulture	Introduction of new Co 14 bush type lablab & ICM practices for round the year cultivation	TNAU	**O,T,E**	64	41
Home Science	Kitchen gardening with improved vegetable varieties	TNAU	**T,E**	-	250
Animal Science	Improved desi birds in cage rearing system	TANUVAS	**F,T**	-	401
Animal Science	Promotion of backyard poultry rearing with improved breeds	TANUVAS	**F,T,E**	-	463
Animal Science	Prosopis pod flour as an alternative concentrate feed ingredient	CAZRI, Jodhpur	**O,T,F, E**	-	596

Animal Science	Comprehensive disease control in goats	TANUVAS	**F,T,E**	-	1238
Animal Science	Green fodder- CN hybrid CO-4	TNAU	**F,T,E**		368
Animal Science	Ranikhet disease vaccine- RDVK/R2B	TANUVAS	**T,E**		269
Fisheries	Composite fish culture in village ponds using stunted fingerlings	TANUVAS	**F,T,E**	67 ponds	67 village
Agro forestry	Tree planting in wastelands	TNAU	**T,E**	164	128

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

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Type of institute	Name of organization	Nature of linkage
TANUVAS	VCRI - Tirunelveli	Technical support received for conducting 2 CAT Programs and developing the action plan. collaborator with us to train 120 farmers & 20 Extension persons on fodder production and balanced feeding methods
TNAU	ACRI - Killikulam	Technical support received for developing action plan
TNAU	TNAU - Coimbatore Seed Centre	Support received for sourcing the latest seeds of paddy, green gram and black gram and lab lab for effective implementation of the FLD/OFT programmes for the year 2015 - 16
TNAU	TNAU - DEE	Received machineries for establishing millet processing unit under INSIMP project and the same has been transfer to FPO at kovilpatti. good technological back stopping was received in developing in action plan. FPO members attended exhibition at Coimbatore on Farmer Machineries Mela.
ATMA	ATMA	We went as Resource Person for 22 ATMA Training Program
Forest Department	Dept of Social Forestry, Tuticorin	Received 500 tree saplings for planting trees in KVK Campus
ICDS	ICDS	Maternal and child health care

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

12.B. List Externally Funded Projects / schemes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Role of KVK	Date/ Month of initiation	Funding agency	Amount (Rs.)
Formation of FPCs	Formation of FPC by sensitizing the farmers. Registration of FPC and developing business plan for FPC.	05.09.2015	NABARD	2700000
CAT	Organising and conducting capacity building training programmes and exposure visit	05.02.2016	NABARD	90000
Formation of FPCs	Formation of FPC by sensitizing the farmers. Registration of FPC and developing business plan for FPC.	05.02.2016	NABARD	2700000

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/ ~~No~~

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

KVK, Tuticorin is maintaining group linkage with ATMA especially in SREP preparation for the district and conduct the activities as per SREP. The Programme Coordinator and SMS are regularly attending the ATMA meetings conducted for various purposes. KVK – Tuticorin participated and gave valid inputs in the SREP preparation for the year 2014 - 15 held at Courtallam (24 – 26 March 2014) and Ooty (5 – 6 March 2015) for the year 2015 – 16

Coordination activities between KVK and ATMA during 2015 – 16

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	**Meetings**	SREP Preparative Meeting	1	---	---
02	**Research projects**				
03	**Training programmes**				
	SMS - Horticulture	Solanaceous vegetable cultivation package of practices	2	---	**Total Participant (M-138, F-63) –**
		Organic farming practices for chill, tomato and brinjal	2	---	

		Increasing the vegetable production using precision farming system techniques	2	---	**201 Farmers**
		Raising quality vegetable seed lings through portrays	2	---	
	SMS - Agronomy	Organic farming technology in agriculture crops	1	---	**Total Participant (M-116, F-59) – 175 Farmers**
		Seed production technology in paddy and pulses	2	---	
		Waste composting technology	2	---	
		Integrated crop management in agriculture crops	1	---	
		Bio fertilizer and bio pesticide usage	1	---	
	SMS – Animal Science	Dairy farming	2	---	**Total Participant (M-92, F-35) – 127 Farmers**
		Poultry farming	1	---	
		Goat and sheep farming	2	---	
	SMS – Home Science	Value addition on fruits	2	---	**Total Participant (M-110, F-49) – 159 Farmers**
		Composting technology	2	---	
		Value addition on minor millets and its cultivation	2	---	
	Farmers Field School	As Resource Persons	12	---	**---**

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 2015	3	1251	
May	2	456	
June	3	1610	
July	1	235	
August	0	0	
September	0	0	
October	1	236	
November	2	455	
December	1	235	
January 2016	2	456	
February 2016	0	0	
March 2016	0	0	
Total for the year 2015 – 16	**15**	**4934**	

12.H. Farmers Field School – Nil

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	Poultry unit	2010	160sq.m	Namakkal-1	Chicks	906	75621	102294	
					Egg	2963		20804	
				J.quail, Namakkal-1	Quails	1097	21540	31394	
					Egg	2883		7637	
2	Vermicompost	2006	20sq.m	compost		588		5880	
3	Mushroom	2011	20sq.m	mushroom		84 kg	7800	12600	

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 in ton	Cost of inputs	Gross income	
Cereals									
Paddy	22.11.15	31.03.16	1.12	ASD 16	Grain	6.08	58459	64850	Cost of input include the grain production
Paddy	22.11.15	22.12.15		ASD 16	Seedling			3100	50,000 paddy seedlings
Paddy	22.11.15	31.03.16	1.12	ASD 16	Straw		3450	10000	Paddy straw kept in cattle shed
Pulses									
Oilseeds									
Coconut				Tall	Seedlings	0	2400	3448	No. of seedlings – 80
Fibers									
Spices & Plantation crops									
Curry Leaf				Local	Seedlings	0	152	452	No. of seedlings – 38
Tamarind				PKM – 1	Graft	0	720	960	No. of seedlings – 24
Floriculture									
Chrysanthemum				Local	Seedlings	0	60	80	No. of seedlings – 4
Jasmine				Local	Cutting	0	1075	225	No. of seedlings – 159
Ixora				Local	Cutting	0	80	100	No. of seedlings – 4
Rival Rani				Local	Cutting	0	150	210	No. of seedlings – 6
Fruits									
Mango				Neelam	Fruit	0.04	650	955	
Sapota				Cricket Ball	Fruit	0.15	2450	3297	
Banana				Rasthali	Fruit	0.006	0	150	
Tree Seedlings									
Anola				NA-7	Graft		2960	4955	No. of seedlings – 148
Guava	26.05.15 27.01.16	29.07.15 24.03.16		L – 49	Layer		7250	28566	No. of seedlings – 825
Crusted Apple				Bala nagar	Graft		480	755	No. of seedlings – 24
Jack				Bala	Graft		2320	3245	No. of seedlings – 116

Jamun				Ram Jamun	Graft		690	935	No. of seedlings – 23
Acid Lime				Vikram	Budded		5280	7000	No. of seedlings – 175
Mango	01.08.15	14.10.15		Neelam	Graft		4550	17203	No. of seedlings – 514
Mango					Root stock		8	30	No. of seedlings – 2
Pomegranate				Ganesh	Graft		660	990	No. of seedlings – 33
Sapota				Cricket ball	Graft		4075	5780	No. of seedlings – 163
Papaya				Co-2	Seedlings		16	50	No. of seedlings – 4
Orange				Sathukudi	Budded		3210	4815	No. of seedlings – 107
Vegetables									
Cluster Bean									
Bhendi				Arka Anmika	Vegetable	0.334	4750	5691	
Cluster bean	25.02.15	12.06.15		Pusa Navbakar	Vegetable	1.16	7540	10391	
Coconut				Tall	Vegetable		1500	4192	
T. Coconut				Tall	Vegetable			300	
Brinjal	25.02.15 27.08.15	23.04.15 23.11.15		KKM-1	Vegetable	0.196	5150	6897.5	
Coriander leaf				Local	Vegetable	0.001	100	300	
Amaranths				Muli Keerai	Vegetable	0.12	380	640	
Drumstick				Local	Vegetable		100	350	
Others (specify)									
Fodder									
Napier				Co – 4	Sets		375	3480	
Fodder Sorghum				Co (FS) – 29	Seed	0.07	1550	2725	
Forrest Species									
Azolla				Local	Seed	0.22	1540	5500	
Ornamental Crops									
Acalipha				Local	Cutting		28	70	No. of Cuttings - 7
Alamenda				Local	Cutting		40	60	No. of Cuttings – 2
Coleas				Local	Cutting		60	75	No. of Cuttings – 3
Aralia				Local	Cutting		120	170	No. of Cuttings – 6
Crotens				Local	Cutting		160	225	No. of Cuttings – 8
Drazina				Local	Cutting		120	175	No. of Cuttings – 6
Duranta				Local	Cutting		387	913	No. of Cuttings – 129
Eranthima				Local	Cutting		12	30	No. of Cuttings – 3
Lachakatta				Local	Cutting		48	144	No. of Cuttings – 12
Minimozonda				Mini	Cutting		50	70	No. of Cuttings – 2
Polyanthiya				Local	Cutting		620	3100	No. of Cuttings – 155
Pedilanthus				Local	Cutting		40	100	No. of Cuttings - 10

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

Sl. No.	Name of the Product	Qty in Kg	Amount (Rs.)		Remarks
			Cost of inputs /Kg	Gross income / Kg	
1	Azospirillum	216.1	3889.80	10805	To promote organic agriculture practices
2	Azophos	11.6	208.8	580	To promote organic agriculture practices
3	Phosphobacteria	233.5	4203	11675	To promote organic agriculture practices
4	Rhizophos	275.2	4953.60	13760	To promote organic agriculture practices
5	Pseudomonas	358.6	11475.20	28688	To promote organic agriculture practices
6	T. Viridi	148.6	4755.20	11888	To promote organic agriculture practices
7	Vermicompost	1429	4287	14290	To promote organic agriculture practices
8	Rhizobium	11.6	208.80	580	To promote organic agriculture practices
9	EMA (Liter)	1005	24120	60300	To promote organic agriculture practices
10	Mushroom	35	1400	5600	To promote organic agriculture practices
11	Salt lick	115	4600	6900	To enhance performance in live stocks

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		Cross bred heifer	heifer	06	46,000	46,000	03 heifers were sold. 03 heifers in stock.

13.E. Utilization of hostel facilities Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
Feb 2016	7	2	Hostel is yet to be furnished
Feb 2016	22	1	
March 2016	10	1	

13.F. Database management

S. No	Database target	Database created
1	Training data base	Created for the year of 2011-12
2	Trainees data base	Created for the year of 2012-13
3	FLD&OFT Data base	Created for the year of 2012-13

13.G. Details on Rain Water Harvesting Structure and micro-irrigation system – Nil

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

PART XIV - FINANCIAL PERFORMANCE

14.A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	Central Bank of India	Tirunelveli Junction	280924	Main Account	3117090470	627016002	CBIN0280924
	South Indian Bank Ltd	Tirunelveli Junction	0254	Revolving Fund	025405300 0004536	627059002	SIBL0000254

14.B. Utilization of KVK funds during the year 2015 – 16 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	7837250	7837250	7843809
2	**Traveling allowances**	90000	90000	45607
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	240000	240000	237770
B	POL, repair of vehicles, tractor and equipments	100000	100000	107182.69
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	60000	60000	67500
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	15000	15000	12798
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	180000	180000	197360
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	50000	50000	49260
G	Training of extension functionaries	0	0	0
H	Maintenance of buildings	0	0	0
I	Farmers field School	0	0	0
J	Library	5000	5000	4008
K	Extension activities	20000	20000	12902
L	IFS	0	0	0
	TOTAL (A)	**85,97,250.00**	**85,97,250.00**	**87,02,976.69**
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipments including SWTL & Furniture**			
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)		0	0	0
C. REVOLVING FUND				
D. Refund To ICAR		0	1,24,780	0
GRAND TOTAL (A+B+C) – D		**85,97,250.00**	**84,72,470.00**	**87,02,976.69**

14.C. 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 2013 to March 2014	**2.58**	**9.6**	**8.9**	**3.20**
April 2014 to March 2015	**3.20**	**5.34**	**5.58**	**3.42**
April 2015 to March 2016	**3.42**	**6.27**	**6.79**	**2.89**

PART XV – HUMAN RESOURCE DEVELOPMENT

15. Details of HRD activities attended by KVK staff during 2015 – 16

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates	
				From	To
Mrs. S. Sumathi	SMS – HS	Psychology of vision	SCAD Group	10th Apr 2015	10th Apr 2015
Dr. V. Srinivasan	PC i/c	9th National Conference on KVKs	ICAR Research Complex for Eastern Region, Patna	25th July 2015	26th July 2015
Mrs. S. Sumathi	SMS – HS	4th National Seminar on Micro finance in India – Issues and Challenges	BIRD, Lacknow	16th Oct 2015	17th Oct 2015
P. Velmurugan	SMS – Hort	Farmer Producer Organization Formation and Management	NABARD	15th Dec 2015	19th Dec 2015
Mr. A. Murugan	SMS – Ag	First KVK Symposium	ICAR – ATARI, Bengaluru	21st Jan 2016	22nd Jan 2016
Dr. V. Srinivasan	PC i/c	Pre Action Plan Meeting	TNAU, Coimbatore	2nd Mar 2016	2nd Mar 2016
Mrs. S. Sumathi	SMS – Hs	Pre Action Plan Meeting	TNAU, Coimbatore	2nd Mar 2016	2nd Mar 2016
P. Velmurugan	SMS – Hort	Pre Action Plan Meeting	TNAU, Coimbatore	2nd Mar 2016	2nd Mar 2016
Mr. A. Murugan	SMS – Ag	Pre Action Plan Meeting	TNAU, Coimbatore	2nd Mar 2016	2nd Mar 2016
Dr. V. Srinivasan	PC i/c	Action Plan 2016 - 17	ICAR - ATARI, Bengaluru	15th Mar 2016	17th Mar 2016
P. Velmurugan	SMS – Hort	Action Plan 2016 - 17	ICAR - ATARI, Bengaluru	15th Mar 2016	17th Mar 2016
Mr. A. Murugan	SMS – Ag	Machinery Demonstration Mela	TNAU, Coimbatore	18th Mar 2016	18th Mar 2016
Mr. K. Dhamodharan	Farm Manager	Farm Management Training	TNAU	23rd Mar 2016	24th Mar 2016

SUMMARY DETAILS FOR ANNULA REPORT 2015 – 16

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Integrated Nutrient Management	Drumstick	Assessment of off season production techniques in drumstick	7
Varietal Evaluation	Dolichos bean	Assessment of yield potential of Dolichos bean varieties	7
	Ground nut	Assessing the suitability of high yielding short duration groundnut varities	7
Integrated Pest Management	Paddy	Assessment of ecological engineering in ASD (R) 16 paddy	7
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			
Cropping system and crop intensification			
Total			**28**

Summary of technologies assessed under livestock – Nil

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

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

5B1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (Qtl/ha)				% Yield 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										
Paddy	Demonstration on Paddy TPS (R) – 5 in Thamirabarani River Command area	TPS (R) -5	---	Irrigated	10	4	83.2	61.9	71.6	58.4	22.67	41135	86034	44799	2.08	42645	70130.4	27485.4	1.6
Black gram	Demonstration On Black Gram[VBN – 6] with ICMP Practices	VBN (Bg)-6	---	Rain fed	10	4	8.97	6.9	7.86	6.26	25.56	24040	66017.5	41977.5	2.74	23797	53227	29430	2.23
Green Gram	Demonstration On Green gram[CO – 8] in Dry Land Farming	Co (Gg)-8	---	Rain fed	10	4	9.97	7.92	8.70	6.79	28.06	23945	43525	19580	1.81	21455	33990	12535	1.59
Paddy	Demonstration on IPM in Paddy to contain Stem borer and Leaf folder	ASD (R) -16	---	Irrigated	10	4	79.83	52.36	68.04	47.30	38.12	42225	88455.9	46230.9	2.09	41130	61493.9	20363.9	1.49
Banana	Demonstration on Integrated Disease management in Banana	Robusta	---	Irrigated	5	2	58.1	56.75	57.30	50.22	14.09	105300	324240	218940	3.08	103200	301320	198120	2.92
Vegetables	Demonstration of Nutrition Garden in Schools	Nutrition Garden	---	Irrigated	10	---	240	151	194.3	---	---	1884	3886	2002.4	2.05	---	---	---	---
Black gram	Demonstration On Rice Fallow Black Gram cultivation in River Command Area	ADT (Bg) – 3	---	Rice Fellow	10	4	Maturity Stage				**On Progress**								
Drumstick	Demonstration on Ecological pest control in drumstick	PKM-1	---	Irrigated	10	4	**On Progress** Since the organic insecticide sprayed as preventive control measure, the leaf caterpillar problem is effectively controlled in demo plots where as it was noticed in control plots.												

Banana & Dolichos bean	Demonstration on Inter cropping in Banana with Dolichos bean (CO 14)	Co – 14	---	Irrig ated	10	4	**On Progress** Banana – 6-7months old, bunch emerging stage Dolichos Bean – nearing completion, final harvesting stage
Coconut	Demonstration On Mixed Cropping System In Coconut Plantation	T X D	---	Irrig ated	10	4	**On Progress** **Coconut -** 15 years and above, yielding nuts regularly **Banana -** 6-7months old, bunch emerging stage
Sweet Corn	Demonstration on Sweet corn cultivation	Surichi	---	Irrig ated	10	4	**On Progress** Maturity Stage

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

** BCR= GROSS RETURN/GROSS COST H – Highest Yield, L – Lowest Yield A – Average Yield

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Check if any**	**Demo**
Demonstration on Paddy TPS (R) – 5 in Thamirabarani River Command area		
Hills / m2	18.5	16
Productive Tiller / Hill	13.7	18.6
Grains / Panicle	121.1	131.4
1000seed weight (gm)	20.3	20.4
Yield / ha in Ton	5844.2	7169.5
Demonstration of Black gram[VBN (Bg) – 6]		
Plant /m2	16.5	20.4
No. of Pods / Plant	21.6	27.2
No. of Seeds / Pod	4.4	4.7
Yield / ha in qtl	6.45	7.86
Labour days taken for sowing and weeding /ha	35	6
Weed DMP (30^{th} Day) / m^2	10.5	10.9
Weed DMP (50^{th} Day) / m^2	7.8	7.5
Demonstration On Green gram[CO – 8] in Dry Land Farming		
Plant population /m2	14	16.5
No .of pods / plant	21.6	32.6
No. of seeds / pod	10.4	11.6
Yield / ha (Kg)	679.8	870.6
Labour days taken for sowing and weeding /ha	30	4

Demonstration of IPM in Paddy to contain Stem borer and Leaf folder		
Hill /M 2	17	17.9
Productive tiller /Hill	13.7	17.9
Grain / panicle	114.4	125.6
1000 grain weight (g)	20.3	20.4
Leaf folder tillering stage affected leaf /m2	15%	10 %
Leaf folder booting stage affected leaf / m2	12 %	12%
Stemborer – head heart %	12 %	8 %
Stem borer – White ear %	5%	2 %
No of pesticide spray	5	1
Yield /ha (kg)	4730.3	6804.3
Demonstration on Integrated Disease management in Banana - Robusta		
Wilt affected plant at 3rd month (%)	17	10
Wilt affected plant at 5th month (%)	26	7
Wilt affected plant at 7th month (%)	27	5
Bunch Yield t/ha	50.22	54.04
Demonstration of Nutrition Garden in Schools		
Vegetables availability – no of days /yr / 2 cent	0	75
Amount saved from the garden (Rs)	0	1625
Increase in quantity of vegetable consumption / in kg	0	194
Vegetable yield / harvest /2 cent / day in kg	0	2.5
Nutritional knowledge of students (%)	64	83.5
Nutritional knowledge of Teachers (%)	76	95
Composting knowledge of students (%)	25	78
Composting knowledge of Teachers (%)	75	90
Demonstration on Rice fallow black gram ADT (Bg) – 3		
Duration	75-80 days	75 days
Date of sowing	15.3.16 to 19.3.16	15.3.16 to 19.3.16
No of plant /m2	10.7	14
No of pods /plant 60th day immature pods	10.8	14.9
YMV incidence	17.3	10.8
Demonstration on ecological eng. Pest management in drumstick		
No of plant /ac	910	935
Operation carried out	Nipping completed	Nipping completed
Plant height	80-95	90-100 cm
Pruning	July 3rd	July 3rd
Leaf cater pillar incidence %- (vegetative phase)	10.8	Nil

Demonstration on Inter cropping in Banana with Dolichos bean (CO 14)		
Days to germinate	Nil	3.5days
Days to 1st flowering	Nil	39.2
Number of pods/cluster	Nil	11.6
Pod length cm (Average)	Nil	12.4
Pod width cm(Average)	Nil	2.6
No of harvest (upto 90 days) Ave	Nil	9.5
Mixed cropping in Coconut with Banana and CO 14 lab lab		
Days to germinate	Nil	3-4days
Days to 1st flowering	Nil	38-41days
Number of pods/cluster	Nil	8-11
Pod length cm (Average)	Nil	12.5
Pod width cm(Average)	Nil	2.4
No of harvest (upto 90 days) Ave	Nil	9.0
Demonstration on Sweet corn cultivation		
Plant / M2	Nil	6.9
No of Cob / plant	Nil	1.3

5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Milk Yield (lit/day)				% Increase	*Economics of demonstration thousand Rs./unit)				*Economics of check (thousand Rs./unit)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Dairy Cow	Demonstration for improvement of profitability in High yielding cross bred Dairy cows		15	1	3050	2580	2832	2525.33	12.18	41725	70800	29075	1.69	39650	63133.33	23483.3	1.59
Dairy Cow	Demonstration for improvement of profitability in Low yielding cross bred Dairy cows		20	1	2897	1464	2209.73	1967.25	12.70	29425	55243.13	25818.13	1.87	28975	49181.25	20206.50	1.69
Sheep	FLD On Scientific Management And Comprehensive Disease Control Practices In Sheep Rearing		10	100						124695	208000	83305	1.66	120500	147320	26820	1.22
Goat	Demonstration on Mineral lick feeding to enhance body weight gain in Goat kids		20	10						5000	24878	19878	4.97	4800	19439	14639	4.04

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

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Check if any**	**Demo**
Demonstration for improvement of profitability in High yielding cross bred Dairy cows		
Days required for post partum 1st oestrum	57.4	46.8
No. of inseminations required for conception	3.13	1.90
305 day milk yield in liters	2525.33	2832.00
Increase in yield		306.6
Increase in yield in %		12.18
Demonstration for improvement of profitability in Low yielding crossbred Dairy cows		
Days required for post partum 1st oestrum	54.15	43.50
No. of inseminations required for conception	3.05	1.85
305 day milk yield in liters	1967.25	2209.75
Increase in yield		242.75
Increase in yield in %		12.70
FLD On Scientific Management And Comprehensive Disease Control Practices In Sheep Rearing		
Number of lambs born/unit	84.7	98.5
Weaning percentage (%)	75.71	95.42
Weaning weight (kg)	9.74	10.67
Mortality due to infectious diseases (%)	16.92	0
Mortality due to non infectious diseases (%)	7.35	4.57
Net return per ewe	268.2	833.05
No. of lambs weaned	64.2	94.0
No. of lambs died due to infectious disease	14.3	0
Mortality due to non infectious disease	6.2	4.5
No. of adults died due to infectious diseases	11.8	0
No. of adults died due to non-infectious diseases	2.8	2.6
Demonstration on Mineral lick feeding to enhance body weight gain in Goat kids		
Birth weight in kg	1.80	1.82
Weaning weight in kg	7.26	7.84
Mortality due to enteritis in kids / unit	1.7	0.4
Net return per goat per annum	3659.75	4969.50
No. of kids born/unit	9.35	9.45

5.B.3. Fisheries

Type of Fish	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Milk Yield (lit/day)				% Increase	*Economics of demonstration thousand Rs./unit)				*Economics of check (thousand Rs./unit)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Fish	Demonstration Of Composite Fish Culture With Stunted Fish Yearlings		10	1	4^{th} Month Stage				**On Progress**								

* 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**
Demonstration Of Composite Fish Culture With Stunted Fish Yearlings	Body weight during stocking	15.7 gm / fish	
	Body weight as on 4 months	491 gm / fish	

5.B.4. Other enterprises – Nil

5.B.5. Farm implements and machinery – Nil

5B.6 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 Sweet Corn	Demonstration on Sweet corn cultivation	Suruchi	10	4	**On Progress**												
Paddy																	
Sorghum																	
Wheat																	
Others (pl. specify)																	
Total																	
Oilseeds																	
Castor																	
Mustard																	
Safflower																	
Sesame																	
Sunflower																	
Groundnut																	
Soybean																	
Others (pl. specify)																	
Total																	
Pulses																	
Green gram																	
Black gram																	
Bengal gram																	
Red gram																	
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

IV. Training Programme

Training for Farmers and Farm Women including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Tot	M	F	Tot	M	F	Tot
Crop Production										
Seed production	1	3	0	3	0	0	0	3	0	3
Integrated Crop Management	4	34	19	53	16	20	36	50	39	89
Soil and Water Conservation	1	12	0	12	4	0	4	16	0	16
Production of organic inputs	3	36	11	47	11	2	13	47	13	60
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	4	49	30	79	3	0	3	52	30	82
Nursery raising	1	12	11	23	11	16	27	23	27	50
Protective cultivation	1	5	3	8	0	2	2	5	5	10
(Others) Terrace Garden	1	7	6	13	0	8	8	7	14	21
b) Fruits										
Cultivation of Fruit	3	57	20	77	20	10	30	77	30	107
Management of young plants/orchards	1	3	15	18	0	0	0	3	15	18
Jasmine Cultivation	1	5	0	5	4	9	13	9	9	18
Livestock Production and Management										
Dairy Management	4	17	39	56	3	44	47	20	83	103
Poultry Management	5	46	37	83	15	13	28	61	50	111
Others – Goat Management	2	16	0	16	2	0	2	18	0	18
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	4	41	39	80	32	42	74	73	81	154
Value addition	8	38	60	98	13	23	36	51	83	134
Plant Protection										
Integrated Diseases Management	1	5	0	5	0	0	0	5	0	5
Bio-control of pests and diseases	1	12	8	20	0	0	0	12	8	20
TOTAL	**46**	**398**	**298**	**696**	**134**	**189**	**323**	**532**	**487**	**1019**

Training for Farmers and Farm Women including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Tot	M	F	Tot	M	F	Tot
Crop Production										
Seed production	3	46	58	104	13	11	24	59	69	128
Integrated Crop Management	6	89	19	108	16	16	32	105	35	140
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	2	17	3	20	0	3	3	17	6	23
Off-season vegetables	4	36	3	39	12	1	13	48	4	52
Nursery raising	2	24	16	40	16	10	26	40	26	66
b) Fruits										
Inter Cropping	2	10	6	16	20	4	24	30	10	40
d) Plantation crops										
Production and Management technology	1	0	0	0	10	3	13	10	3	13
Livestock Production and Management										
Dairy Management	2	27	8	35	0	0	0	27	8	35
Animal Nutrition Management	2	60	64	124	0	0	0	60	64	124
Animal Disease Management	2	34	27	61	0	0	0	34	27	61
Others Sheep Management	1	6	0	6	0	0	0	6	0	6
Home Science/Women empowerment										
Designing and development for high nutrient efficiency diet	1	0	28	28	0	0	0	0	28	28
Value addition	2	32	0	32	17	28	45	49	28	77
Women empowerment	1	0	43	43	0	24	24	0	67	67
Rural Crafts	2	0	19	19	0	25	25	0	44	44
Plant Protection										
Integrated Pest Management	2	10	6	16	10	6	16	20	12	32
Others – Integrated Pest and Disease Management	2	26	2	28	0	0	0	26	2	28
TOTAL	**37**	**417**	**302**	**719**	**114**	**131**	**245**	**531**	**433**	**964**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Tot	M	F	Tot	M	F	Tot
Integrated farming	2	40	1	41	5	15	20	45	16	61
Value addition	2	10	12	22	0	9	9	10	21	31
TOTAL	**4**	**50**	**13**	**63**	**5**	**24**	**29**	**55**	**37**	**92**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	Tot	M	F	Tot	M	F	Tot
Nursery Management of Horticulture crops	1	10	0	10	7	0	7	17	0	17
Any other – Food Security through nutritional school garden	1	8	7	15	18	12	30	26	19	45
TOTAL	**2**	**18**	**7**	**25**	**25**	**12**	**37**	**43**	**19**	**62**

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		
		M	F	Tot	M	F	Tot	M	F	Tot
Protected cultivation technology	1	22	12	34	6	0	6	28	12	40
Women and Child care	1	2	12	14	0	13	13	2	25	27
Information networking among farmers	2	13	20	33	3	0	3	16	20	36
Any other – Climate and Environment	1	4	20	24	0	8	8	4	28	32
Total	**5**	**41**	**64**	**105**	**9**	**21**	**30**	**50**	**85**	**135**

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

Sponsored training programmes

S.No	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			M	F	Tot	M	F	Tot	M	F	Tot
1	**Crop production and management**										
1.a.	Increasing production and productivity of crops	1	24	0	24	8	0	8	32	0	32
1.b.	Commercial production of vegetables	2	37	29	66	0	0	0	37	29	66
2	**Production and value addition**										
2.a.	Package of practices for major Fruit crops and organic pest and diseases control measures	1	24	12	36	20	10	30	44	22	66
3	**Livestock production and management**										
3.a	Animal Nutrition Management	1	46	62	108	0	0	0	46	62	108
3.b	Animal Disease Management	1	20	20	40	0	0	0	20	20	40
3.c	Poultry Rearing	1	26	21	47	0	0	0	26	21	47
3.d	Dairy Farming	2	0	34	34	3	44	47	3	78	81
4	**Home Science**										
4.a	Household nutritional security	2	20	30	50	26	32	58	46	62	108
	Total	**11**	**197**	**208**	**405**	**57**	**86**	**143**	**254**	**294**	**548**

Details of Vocational Training Programmes carried out for rural youth

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			M	F	Tot	M	F	Tot	M	F	Tot
1	**Crop production and management**										
1.a	Friends of coconut training										
2	**Post harvest technology and value addition**										
2.a	Value addition	1	8	3	11	12	2	14	20	5	25
3.	**Livestock and fisheries**										
3.a	Dairy Farming	1	0	20	20	3	24	27	3	44	47

	Sheep and goat rearing	1	15	5	20	0	0	0	15	5	20
	Poultry farming	2	0	14	14	20	28	48	20	42	62
	Others – IFS	1	23	1	24	5	1	6	28	2	30
	Grand Total	**5**	**46**	**43**	**89**	**40**	**55**	**95**	**86**	**98**	**184**

V. Extension Programmes

Sl. No	Activity	No. of Prog	No. of Beneficiaries			No. of Extension Officials		
			M	F	Tot	M	F	Tot
1	Advisory Services Enquire	5	582	214	796	18	12	30
2	ATMA Meeting	26	170	137	307	0	0	0
3	Celebration of important days (Women's day)	2	23	182	205	4	7	11
4	Clean India	2	26	42	68	8	4	12
5	Exhibition	2	74	55	129	8	2	10
6	Extension Literature developed / distributed	4	1600	1200	2800	0	0	200
7	Farmers meeting	34	489	134	623	0	0	0
8	Field Day	3	28	16	44	2	1	3
9	Field Visit	254	1582	1227	2809	0	0	0
10	Film Show as part of the training programme	12	311	270	581	50	85	135
11	Jai Kisan Jai Vigyan Diwas (Farmers Mela)	5	278	86	364	12	6	18
12	Lectures delivered as resource persons	26	456	206	662	12	7	19
13	Method Demonstrations	11	41	27	68	4	2	6
14	Newspaper coverage	24	0	0	0	0	0	0
15	PLF Meeting	14	0	383	383	2	7	9
16	Popular articles	1	0	0	0	0	0	0
17	PRA	2	51	9	60	1	1	2
18	Publications (News Letter)	1	0	0	0	0	0	0
19	Research article	1	0	0	0	0	0	0
20	Scientific visit to farmers field	145	723	512	1235	3	1	4
21	Self Help Group Conveners meetings	54	0	931	931	0	12	12
22	TV /Radio talks	1	0	0	0	0	0	0
23	Rural Veterinary camp	9	25	76	101	0	0	0
TOTAL		**638**	**6459**	**5707**	**12166**	**124**	**147**	**471**

VI. PRODUCTION OF SEED/PLANTING MATERIAL

9.A. Production of seeds by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed (Kg)	Value (Rs)	Unit Cost Rs.	Number of farmers to whom provided
Vegetables	Seed Packet (No)			712	10400	15	435
Fodder crop seeds	Fodder sorghum	Co -29		11.75	3975	351.50	12
	Azolla			239.5	5900	25	224
	Napier hybrid	Co – 4		3800	3800	1	6
Total				**4763.25**	**24075**		**677**

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
Fruits	Custard Apple	Bala Nagar		24	755	15
	Guava	L – 49		825	28566	85
	Jack Fruit	Bala		116	3245	18
	Jamun	Ram Jamun		23	935	16
	Acid Lime	Vikram		175	7000	21
	Mango	Neelam		514	17203.75	111

	Mango	Root Stock		2	30	2
	Pomegranate	Ganesh		33	990	15
	Sapota	Cricket Ball		163	5780	58
	Papaya	Local		4	50	2
	Orange	Sathukudi		107	4815	23
	Anola	NA-7		148	4955	40
Ornamental plants	Coleus	Local		3	75	2
	Crotons	Local		8	225	5
	Duranta	Local		129	916	7
	Ixora	Local		4	115	4
	Musanda	Mini		2	70	1
	Polyalthia	Local		155	3100	5
	Acalipha	Local		7	70	3
	Alamenda	Local		2	60	1
.	Aralia	Local		6	170	4
	Dracina	Local		6	175	4
	Eranthima	Local		3	30	1
	Pedilanthus	Local		10	100	1
Plantation crops	Coconut	Tall		80	3448	19
Species	Curry leaf	Local		38	452	14
	Tamarind	PKM – 1		24	960	4
Medicinal plants	Neem	Local		14	140	7
Forest Species	Azolla	Local		220	5500	220
	Teak	Local		1	20	1
Flower crops	Chrysanthemum	Local		4	80	3
	Jasmine	Local		159	2253	38
	Ixora	Local		4	100	3
	Rival Rani	Local		6	210	3
Paddy seedlings	Paddy	ASD -16		50,000	3100	2
Total				**53019**	**95693.75**	**758**

9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity in qtl	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers	Azospirillum	0.82	4100	92
	Azophos	2.032	10150	165
	Phosphobacteria	0.236	1180	35
	Rhizopos	1.896	9480	161
Bio-fungicide	Pseudomonas	0.836	6688	72
	T.viridi	0.428	3424	36
	Vermicompost	5.88	5880	125
Others (specify)	Bio – char	0.84	336	30
	EMA (in lit)	845	50700	230
	Slurry (in lit)	248	7440	123
	Salt Lick	1.15	7475	97
Total			**106853**	**1166**

9.D. Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Poultry				
Chicks (Young one)	NKM – 1	1156	77180	306
Cock & Hen	NKM – 1	246.15	36918	58
Chick Egg	NKM – 1	953	7663.5	152
Chick Egg	Kadaknath	38	552	9
Japanese Quails		1555	52673	323
Japanese Quails Egg		4109	8218	129
Total		**8057.15**	**183204.5**	**977**

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2015 – 16

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	108	62	41	6340
Water Samples	81	49	44	2740
Plant samples	0	0	0	0
Manure samples	0	0	0	0
Others (specify)	0	0	0	0
Total	**189**	**111**	**85**	**9080**

VIII. SCIENTIFIC ADVISORY COMMITTEE

Number of SACs conducted
Nil

IX.NEWSLETTER

Number of issues of newsletter published
One

X. RESEARCH PAPER PUBLISHED

Number of research paper published
One

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

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