

**TAMIL NADU AGRICULTURAL UNIVERSITY  
KRISHI VIGYAN KENDRA – CUDDALORE  
TAMIL NADU, INDIA**

**ANNUAL REPORT (2016-17)**

**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		
<b>Krishi Vigyan Kendra Vriddhachalam - 606 001 Cuddalore District Tamil Nadu</b>	<b>04143-238353</b>	<b>04143-238353</b>	<b><u>kvkvri@tnau.ac.in</u></b>	<b><u>www.kvkcuddalore.com</u> <u>www.tnau.ac.in</u></b>

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

Address	Telephone		E mail	Web address
	Office	Fax		
<b>Tamil Nadu Agricultural University Lawley Road, Coimbatore - 641 003 Tamil Nadu</b>	<b>0422-2431222</b>	<b>0422 - 2431672</b>	<b>registrar@tnau.ac.in</b>	<b>www.tnau.ac.in</b>

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

Name	Telephone / Contact		
	Residence	Mobile	Email
<b>Dr. S.Kannan</b>	<b>9787976407</b>	<b>9842664165</b>	<b><u>kvkvri@tnau.ac.in</u></b>

**1.4. Year of sanction: ICAR - F. No. 22 (17)/83–KVK dt 29.03.1985 of the Deputy Director General (AE), ICAR, New Delhi**

### 1.5. Staff Position (as 31<sup>st</sup> March 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr.S.Kannan	Assistant Professor	M	Food science and nutrition	Ph. D	15600-39100-8000(GP)	37810	06.08.2009	Permanent	SC
2	SMS (Agrl.Extension)	Dr.M.Nirmala Devi	Assistant Professor	F	Agrl.Extension	Ph. D	15600-39100-8000(GP)	36780	22.04.2015	Permanent	OBC
3	SMS (Plant Protection/ Agro Forestry)	Dr.K.Natarajan	Assistant Professor	M	Seed Science & Technology	Ph. D	15600-39100-7000(GP)	31660	16.04.2015	Permanent	OBC
4	SMS (Agricultural Engineering)	Dr.P.T.Sharavanan	Assistant Professor	M	Pl. Pathology	Ph. D	15600-39100-7000(GP)	31660	18.03.2013	Permanent	OBC
5	SMS (Agronomy)	Dr. K. Venkatalakshmi	Assistant Professor	F	Agronomy	Ph.D.	15600-39100-7000(GP)	31660	16.04.2013	Permanent	OBC
6	SMS (Horticulture)	Dr. A. Ramesh kumar	Assistant Professor	M	Horticulture	Ph.D.	15600-39100-7000(GP)	31660	22.04.2015	Permanent	OBC
7	SMS (Animal Husbandry)	Tmt. G. Porkodi	Assistant Professor	F	Soil Science & Agrl.Chemistry	M.Sc (Agri)	15600-39100-6000 (GP)	22250	08.04.2015	Permanent	SC
8	Programme Assistant ( Lab Tech.)	Mrs.G.Meenalakshmi	Programme Assistant (Lab Tech.)	F	Horticulture	B.Sc. (Agri)	9300-34800-4400 (GP)	15910	28.02.2011	Permanent	SC
9	Programme Assistant (Computer)	Mr.R.Samundeeswaran	Programme Assistant (Computer)	M	Computer Science	M.C.A.	9300-34800-4400 (GP)	18020	14.11.2012	Permanent	SC
10	Programme Assistant/ Farm Manager	Mr. D.Kumar	Farm Manager	M	Agronomy	M.Sc.(Agri)	9300-34800-4400 (GP)	19410	13.08.2010	Permanent	OBC

11	Superintendent cum Accountant	Selvi.A.Naveenatham	Superintendent	F	-	Higher secondary	9300-34800 4800(GP)	17970	17.04.2015	Permanent	SC
12	Jr. Stenographer	Mrs. A. Kalyaniammal	Assistant	F	-	SSLC	5200-20200-2400(GP)		11.03.16	Permanent	OBC
13	Driver	Th. C. Jayabal	Driver	M	-	XI	9300-34800-4400 (GP)	20110	28.11.1986	Permanent	OBC
14	Driver	Th.S.Arul	Driver cum Mechanic	M	-	X	5200-20200-2400(GP)	10940	21.02.2007	Permanent	OBC
15	Supporting staff (Office Assistant)	Th. A. Deivasigamani	Office Assistant	M	-	XII	4800-10000-1300(GP)	7090	27.01.2011	Probationer	OBC
16	Supporting staff (PUSM)	Th. P. Narayanasami	PUSM	M	-		4800-10000-1300(GP)	9890	08.08.1988	Permanent	OBC

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

S. No.	Item	Area (ha)
1	Under Buildings	872.62 m <sup>2</sup>
2.	Under Demonstration Units	208.66 m <sup>2</sup>
3.	Under Crops	16.1 ha
4.	Orchard/Agro-forestry	3.8 ha
5.	Others	Nil

**1.7. Infrastructural Development (2016-17):**

**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	-	-	-	-	-	-	-
2.	Farmers Hostel	-	-	-	-	-	-	-
3.	Staff Quarters							
	1	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-
4.	Demonstration Units	-	-	-	-	-	-	-
	Establishment of demo unit of IFS	Climate Resilient IFS demo unit in KVK by ICAR	Wetland : Progress	15x15x1.5 mt for wet land	150000			
			Dryland: progress	Fodder bank: 1 ac				
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-
9	Jeep shed	-	-	-	-	-	-	-
10	Seminar hall	-	-	-	-	-	-	-

## B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Motor cycle- Bajaj M80 (TN 31 V 4421)	1995	20,448	7,714	Non repairable condition
Mahindra Jeep (TN 31 L 7571)	2004	4,48,196	2,19,904 km	Running
Motor cycle-Hero Honda (TN 31V 4421)	2009	48,255	38,923 km	Running
Tractor (TN-31 AS 2462)	2011	4,87,500	1343 hrs	Running

## C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Digital camera	2016-17	42500	Good
Desktop computers	2016-17	100000	Good
Printer cum Xerox machine	2016-17	60000	Good
Public address system (Portable)	2016-17	30000	Good
Reverse osmosis unit for drinking water	2016-17	25000	Good
Portable memory drive	2016-17	10000	Good
Uninterrupted power system	2016-17	25000	Good
File storage and fixtures	2016-17	50000	Good
Wooden table and chair	2016-17	50000	Good

### 1.8. Details of SAC meeting conducted during 2016-17:

Date of SAC meeting : 15.11.2016

No. of participants : 22

The following recommendations were given by the Chairman and members for action plan during forth coming year.

#### The Director of Extension Education, TNAU, Coimbatore

- Preparation of pocket note on technologies for paddy, groundnut, pulses ,cashew and banana for distribution to the farmers
- Effectiveness of the training programmes should be done by all SMS (pre and post evaluation)
- Impact study on high density planting in cashew has to be taken up .
- More number of trainings have to be conducted in value addition in cashew apple and jack fruit
- The officials of NABARD and LEAD bank shall be invited for training programmes to explain their activities and schemes to the farmers
- The results of the OFT on Pani pipe technology in paddy should be taken up as FLD in the next year

**Dr. D .V. S. Reddy, Principal Scientist, ATARI, Bengaluru**

- Demonstration of blackgram as bund crop and documentation of data on additional income and other factors.
- More demonstrations should be conducted on groundnut harvester and stripper
- The results of the OFT on weed management in direct seeded paddy should be taken up as FLD in the next year
- Model on IFS should be established at KVK instructional farm
- Farmer participatory seed production in crops viz., paddy, groundnut and blackgram.
- Awareness on production and use of vermicompost through training programmes should be created in order to improve soil health
- Soil nutrient analysis should be done and soil health cards should be issued to the farmers.

**Dr. I. Ravi, Principal Scientist, NRC for Banana, Trichy**

- Popularization of Banana Sakthi (Micro nutrient formulation) developed by NRC for Banana, Trichy.

**Th. L. G. Naganathan, Assistant Executive Engineer, Dept. of Agri. Engg. Vridhachalam**

- Demonstrations on sugarcane bud chipper should be conducted to the farmers

**Dr. L. Jeeva Jothi, Professor and Head, VRS, Palur**

- Grafts of jack (PLR- 1) shall be produced and supplied to the farmers

**Dr. S. Douressamy, Professor, Agri. Entomology, SRS, Cuddalore.**

- Eco friendly crop management in paddy and sugarcane must be highlighted during the training programmes.
- Training on cultivation of watermelon with special reference to management of wilt and cucumber mosaic virus in Srimushnam block.

**Th. D. Shankar, AGM, NABARD, Cuddalore District**

- Promotion of trainings on organic farming and use of bio pesticides.
- Training on cultivation of vetiver in Notchikadu village as vetiver is a newly introduced crop.

**Th. G. Jayaraj, Inspector of Fisheries, Parangipettai**

- Trainings on fish culture in farm ponds shall be conducted in collaboration with department of fisheries.

**Th. M. Chandrahasan, Deputy Director of Horticulture, Cuddalore.**

- Demonstrations of pruning in cashew under high density planting system shall be conducted.
- Popularization of protray techniques for vegetables seedlings production

**Th. P. Haridoss, Deputy Director of Agriculture, (GOI schemes), Cuddalore**

- Promotion of weed management techniques in paddy
- Promotion of eco friendly pest management in paddy
- Promotion of pulses as intercrop in cashew

**Th. C. Natarajan, Progressive farmer, Sathyavadi village**

- Awareness on usage of green fodder through trainings and demonstrations should be created.
- Training on management of milk yielding cows and value addition in milk have to be conducted.

**Tmt. K. Seethalakshmi, Entrepreneur, Neyveli**

- Needs training on value addition in jack and millets

**PART II - DETAILS OF THE DISTRICT**

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

S. No	Farming system/enterprise
1	Command areas
2	Irrigated agricultural system
3	Rainfed agricultural system
4	Livestock production
5	Sericulture
6	Inland aquaculture
7	Cashew Processing unit, Cashew nurseries
8	Value addition

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

S. No	Soil type	Characteristics
1.	Heavy Clay soils	Command areas Rice-Rice-Pulses; Rice-Pulses / Sesame /Cotton
2.	Heavy Clay soils	Tankfed areas Rice-Pulses
3.	Laterite, Red and Black soils	Well irrigated areas Sugarcane-Ratoon-Rice-Groundnut (3 yrs); Rice-Groundnut-Sesame
4.	Laterite and Black soils	Rainfed Groundnut-Sesame

S. No	Agro ecological situation	Soil type	Characteristics
1	AES-I	Sandy Clay loam, Medium texture, Normal Rainfall, Well irrigated area	Diversified agriculture
2	AES-II	Clay loam, Heavy texture, Normal Rainfall, Delta area	Paddy areas
3	AES-III	Sandy clay loam, Medium to light texture, Rainfed area.	Rainfed agriculture

### 2.3 Soil type and area

S. No	Soil type	Characteristics	Area in ha
1.	Sandy loam	Slightly acidic to alkaline in pH Poor in water holding capacity, low in Nitrogen medium in P and K	91679
2.	Sandy	Neutral to Saline pH, poor in water holding capacity, low in Nitrogen medium in P and K.	31974
3.	Clay loam	Neutral to alkaline pH, poorly drained soil, medium in N and P and high in K.	115565
4.	Sandy Clay loam	Neutral to Saline pH, low in Nitrogen medium in P and K	128573
	<b>Total</b>		<b>367791</b>

### 2.4. Area, Production and Productivity of major crops cultivated in the district (2015-16)

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (Kg/ha)
<b>Agricultural crops</b>				
Cereals				
1	Rice	139986	6.60 (Rice)	4767
Millets				
1	Sorghum	21	0.001	2013
2	Cumbu	3491	0.15	3300
3	Maize	22705	1.55	6981
4	Varagu	50	0..01	2327
Pulses				
1	Redgram	172	0.01	1256
2	Blackgram	52400	0.45	1138
3	Greengram	10800	0.09	1091
Oilseeds				
1	Groundnut	9926	0.29	4663
2	Gingelly	3600	0.23	607
Cash crops				
1	Cotton	7211	0.13	659
2	Sugarcane	24443	28.35	120000
<b>Horticultural crops (2014-15)</b>				
Fruits/plantation crops				
1	Cashew nut	32146	178371	552.9
2	Banana	4250.83	23571.6	97421
3	Jack	664.91	4930	-
4	Guava	570.405	658.86	403
5	Mango	494.935	4438.09	2277
Vegetables/spices				
1	Brinjal	172.385	16637.73	2542
2	Chillies	128.170	436.55	45
3	Bhendi	153.12	8699.58	757
4	Tapioca	3252.010	29790.82	101408



Flower crops				
1	Rose	35.140	--	--
2	Jasmine-Gundumalli	143.590	--	--
3	Jasmine-Mullai	250.315	--	--
4	Crossandra	43.200	--	--

\*\* Source: O/o. Joint Director of Agriculture, Cuddalore and Hand book of statistics, 2016

## 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April 2016	0.0	35.1	24.4	78.4
May 2016	85.6	36.5	27.2	78.1
June 2016	21.52	35.2	26.5	79.0
July 2016	10.42	36.7	26.8	77.6
August 2016	16.24	35.9	25.8	80.1
September 2016	14.56	36.2	26.1	77.9
October 2016	85.25	33.8	24.6	83.2
November 2016	212.3	30.9	24.0	91.1
December 2016	12.42	30.3	22.9	86.0
January 2017	-	32.1	22.1	84.4
February 2017	-	34.7	22.1	84.1
March 2017		35.4	23.4	
<b>Total/Mean</b>				

\* Source: Regional Research Station, Vriddhachalam, Cuddalore district, Tamil Nadu

## 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2016-17)

Category	Population	Production(*000 tonnes)	Productivity
<b>Cattle</b>	337451	174 lakh litres	--
<i>Crossbred</i>	150.976	5412	--
<i>Indigenous</i>	23.562	777	--
<b>Buffalo</b>	19784	15.106	--
<b>Sheep</b>	59255	6968	--
<i>Crossbred</i>		--	--
<i>Indigenous</i>		--	--
<b>Goats</b>	305366		--
<b>Pigs</b>	<b>17827</b>		--
<i>Crossbred</i>		--	--
<i>Indigenous</i>		--	--
<b>Rabbits</b>		--	--
Poultry	3805549	165.121 lakh nos.	
Hens		--	--
<i>Desi</i>		--	--
<i>Improved</i>		--	--
Ducks	11614		--
Turkey and others	--	--	--

<b>Category</b>	<b>Area</b>	<b>Production</b>	<b>Productivity</b>
Fish			--
<i>Marine</i>	57.5 km	426735	477943.69
<i>Inland</i>	45 km	184753.44	103122.52
Prawn	--	--	--
Scampi	--	--	--
Shrimp	--	--	--

\* Source: Handbook of Cuddalore district, O/o the Deputy Director, Statistics, Cuddalore, 2014-15

2.7 District profile has been **Updated** for 2016-17 Yes / No: Yes

## 2.8 Details of Operational area / Villages

S.No	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
2.1	Paddy	Rice is a staple food in India- no. of diabetic patient increasing day by day Non availability of low GI rice variety in Tamil Nadu	133936 ha	Alichikudi, Pinnalur and Rajendrapattinum	OFT-Assessment of suitable low glycemic index rice variety
		Availability of water is limited. Lack of suitable tool for alternate wetting and drying paddy	15000 ha	Gunamanagalam, Rajendrapattinum, Alichikudi and Pinnalur	FLD-Demonstration of pani pipe indicator tool of AWD in paddy
		BPT 5204 variety susceptible for leaf folder, stem borer, sheath blight and neck blast in samba season Indiscriminate use of chemicals for control of pests and diseases. (Samba paddy 1,05,000 ha in Cuddalore district)	25600 ha	Pavalankudi, Srimushnam and Alambadi	FLD-Demonstration of TKM 13 paddy variety for samba season
		Replacement of long duration variety for the existing ruling cultivar in Samba season and to tolerate the flood	17828 ha	Vallam, Thatchakadu, Kalkunam and Reddipalayam	FLD-Demonstration on submergence tolerant variety CR1009 sub 1 in flood affected areas in Cuddalore district
		Replacement of medium duration variety for the existing ruling low yielding cultivar in Kar and late Pishanam season	20,000 ha	Kalkunam and Thirumanikuzhi	FLD-Demonstration on paddy variety TPS 5
		Blast disease occurred in samba Paddy (Oct - Jan).Neck blast is severe in the paddy var.BPT 5204 Yield loss of 20-35%	23,000 ha	Kumaramanagalam, Alambadi and Sathakudal	FLD-Demonstration of IPM for blast disease in samba paddy
2.2	Blackgram	Non availability of latest variety in rice fallow black gram	44000 ha	Pinnalur, Thatchakadu Vallam	OFT-Assessment of suitable rice fallow black gram variety

2.4	Maize	Lack of awareness of recent varieties and hybrids Micronutrient deficiency leads to lower yield in maize crop	13347 ha	Veppur, Periyanesaloor	FLD-Integrated crop management in maize CO 6
2.5	Cumbu	Cultivating low yielding local variety Poor yield and poor income Lack of awareness about the new drought tolerant cumbu variety	2918	Mangulam and M.Patty	OFT-Assessment of suitable cumbu variety
2.6	Ragi	Low yield due to existing local varieties The area under ragi is slowly reducing	200 ha	Periyanasaloor and Kuppanatham	OFT-Assessment of suitable ragi variety for rainfed tract of Cuddalore District
2.7	Groundnut	Lack of knowledge on newly released variety of groundnut Non adoption of Integrated crop management technology	10523 ha	Pottaveli, Thirasu and Viswanathapuram	OFT-Assessment of suitable confectionary groundnut varieties
		Yield reduction is 30-40% due to moisture stress Non availability of drought tolerant varieties	4000 ha	Aladi, Pallakollai and Co.Mavidangal	FLD-Demonstration of groundnut variety CO7 under rain fed areas
2.8	Sesame	Lack of awareness about rice fallow gingelly variety Exploring the possibility of gingelly in rice fallow condition	4737 ha	Pudukuraipettai Srineduncherry Sathamaganalam	OFT-Assessment of suitable for rice fallow gingelly variety
		Tamil Nadu soils are deficient in micro nutrients. Hence the crop yield is low. Farmers are unaware about the micro nutrient mixture application to sesame	4737 ha	Pudukuraipettai, Kuppanatham and TV .Putur	FLD-Demonstration of TNAU micro nutrient mixture application to irrigated sesame
2.9	Varagu	Lack of technical knowledge in the preparation of profitable value added products from Varagu– Noodles	1059 ha	Kattumayloor and Managulam	FLD-Demonstration of CO3 varagu for nutritious for fibre rich nutritious noodles preparation
2.10	Fodder crops	Cultivating mono fodder Poor yield Lack of awareness about other fodder crops.	-	Sathyavadi and Manakulam	FLD-Demonstration of fodder crops

2.11	Cashew	20 % tree loss reported every year due to stem and root borer	32261 ha	Aladi, Kattukudalur	OFT-Assessment of control methods for stem and root borer in cashew
		Low yield due to improper management practices Lack of awareness about pruning and foliar nutrition	32261 ha	Pudukuraipettai, Kuppanatham and Kadampuliyoor	FLD–Demonstration of crop management practices for improving yield in cashew
		Wastage of cashew apple Lack of awareness about preparation of value added products in cashew apple.	4250 ha	Muthandikuppam, Kattukudalur and Viridhakirikuppam	FLD-Demonstration of preserved cashew apple juice for commercialization
2.12	Bhendi	Non adoption of standard fertilizers recommendation – low yield, low income Lack of awareness about plant protection measures	153 ha	Vegakollai, Chathiram	FLD-Demonstration of bhendi Hybrid CO 4
2.13	Brinjal	Root rot and nematode problem in Brinjal	172 ha	Kavanai, Chitherikuppam, Aladi, Puliur	FLD-Demonstration of grafted brinjal
2.14	Brinjal	Yield loss from shoot and fruit borer – (20-25 %) Indiscriminate use of chemicals for control of the borer Lack of awareness about the use of IPM techniques	172 ha	Kavanai, Chitherikuppam, Aladi, Puliur	FLD-Demonstration of eco-friendly pest management in brinjal
2.15	Chillies	Lower productivity due to unbalanced and indiscriminate usage of fertilizer Nutrient use efficiency is low in surface broadcasting	128 ha	Periyakottimoolai	OFT-Assessment of Nutri pellet Pack Technology in chilli cultivation
2.16	Snake gourd	Lack of awareness about newly released variety of snake gourd	75 ha	Panruti, Chathiram and Kadampuliyur	FLD-Demonstration of ICM in Snakegourd
2.17	Fishery	Under utilization of water resources available in villages	-	Alichikudi, Thatchukadu	FLD-Demonstration of composite fish farming in farm ponds

## 2.9 Priority thrust areas

S. No	Thrust area
1	Evaluation and demonstration of new high yielding varieties and hybrids
2	Introduction of alternate cropping system and crop management practices
3	Integrated nutrient management for improving crop productivity and soil health
4	Improving the productivity of horticultural crops
5	Integrated pest and disease management
6	Farm mechanization for major oil seeds, cereals and horticultural crops
7	Self employment and entrepreneur development programmes
8	Problem soil management
9	Production and supply of quality seed / seedling materials
10	Water stress mitigation and water resource conservation
11	Integrated Farming System

### PART III - TECHNICAL ACHIEVEMENTS

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

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
8	8	50	50	16	16	169	169

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
-	156	-	5834	-	55	-	2191

Seed Production (kg.)		Planting materials (numbers )	
5		6	
Target	Achievement	Target	Achievement
-	Groundnut- 1059 kg	-	Cashew grafts: 11114
-	Gingelly – 156 kg	-	Brinjal seedlings: 26838
-	Blackgram- 117 kg	-	Jack grafts 10
-	Greengram- 68 kg	-	Jack root stock- 2000
-	Total: 1400 kg	-	Cumbu napier- 13000
-			Chillies seedlings-9950

Livestock, poultry strains and fingerlings (numbers)		Bio-products (kg)	
7		8	
Target	Achievement	Target	Achievement
-	Goat: 78.4 kg Poultry: 12.3 kg	-	<i>Pseudomonas fluorescens</i> - 104.5 kg <i>Trichoderma viride</i> - 177 kg

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

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds kg	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
													No.	Kg
1	Varietal evaluation	Groundnut	Non availability of suitable confectionary groundnut variety	Assessment of Confectionary groundnut variety for Cuddalore district	-	2	-	3	2	Seeds of VRI 8 : 240 kg G7 : 160 kg	-	-	-	-
		Paddy	Existing variety are high glycemic index and not suitable for diabetic patient	Assessment of suitable low glycemic index rice variety	--	1		1		Seeds of RNR 15048-200 kgs				
		Blackgram	Non availability of latest variety in rice fallow black gram	Assessment of suitable rice fallow blackgram variety	--	2	1	1	1	PU 31 seeds: 20 kgs Sujatha: 20 kgs			Pulse wonder: 10 kgs	
		Cumbu	Cultivating low yielding local variety Poor yield and poor income Lack of awareness about the new drought tolerant Cumbu variety	Assessment of suitable Cumbu variety	--	2	--	2	2	Cumbu seeds CO 10: 10 kgs				
		Ragi	Low yield due to existing local varieties The area under ragi is slowly reducing	Assessment of suitable Ragi variety for Rainfed tract of Cuddalore District	--	3	--	2	2	Ragi seeds; CO 15: 12 kg ML 365 : 24 kg				

		Gingelly	Lack of awareness about rice fallow gingelly variety Exploring the possibility of gingelly in rice fallow condition	Assessment of suitable for rice fallow gingelly variety	--	3	--	2	2	VRI 2: 10 kg Thilarani: 10 kg Hima: 10 kg				
2	Crop management	Chilli	Lower productivity due to unbalanced and indiscriminate usage of fertilizer Nutrient use efficiency is low in surface broadcasting.	Assessment of Nutri pellet Pack Technology in chilli	--	2	--	--	1	Nutri-seed pellets: 10000				
3	Plant Protection	Cashew	20 % tree loss reported every year due to stem and root borer	Assessment of control methods for stem and root borer in cashew	--	4	--	2	2					Healer and sealer – 20 kg
4	Varietal demonstration	Paddy	Replacement of long duration variety for the existing ruling cultivar in Samba Season and to tolerate the flood	-	Demonstration of submergence tolerant paddy variety CR1009 Sub 1 in Cuddalore District	3	2	1	2	CR 1009 sub 1 seeds: 500 kg	-	-	-	<i>Pseudomonas</i> : 10 kg Azospirillum : 9 kg Phosphobacteria : 9 kg



5	Varietal demonstration	Paddy	Replacement of medium duration variety for the existing ruling cultivar in kar and late pishanam season Requirement of short bold rice with medium duration in paddy production system	-	Demonstration of paddy variety TPS 5 of Cuddalore District	2	1	-	2	TPS 5 seeds: 500 kg					<i>Pseudomonas</i> : 5 kg <i>Azospirillum</i> : 5 kg Phosphobacteria : 5 kg
6	Crop Management	Paddy	Availability of water is limited. Lack of suitable tool for alternate wetting and drying -paddy	-	Demonstration of pani pipe indicator tool of AWD in paddy	5	2	4	5						Pani pipe- 6 TNAU MN-Mixture: 30 kg
7	Varietal demonstration	Paddy	BPT 5204 variety susceptible for leaf folder, stem borer, sheath blight and neck blast in samba season Indiscriminate use of chemicals for control of pests and diseases. (Samba paddy 1,05,000 ha in Cuddalore district)	-	Demonstration of TKM 13 paddy variety for samba season	4	3	2	4	TKM 13 seeds: 260kgs					
8	Crop protection	Paddy	Blast disease is severe in samba season and neck blast claiming 25 % yield loss	-	Demonstration of IPM for blast disease in samba paddy	3	1	2	1						Liquid <i>Pseudomonas fluorescens</i> – 20 litre

9	Crop Management	Maize	Lack of awareness of recent varieties and hybrids Micronutrient deficiency leads to lower yield in maize crop	-	Integrated crop management in maize CO 6	2	1	2	1	Hybrid CO6 seed: 80 kgs				TNAU MN Mixture: 120 kg Maize maxim: 30 kg
10	Crop Management	Sesame	Tamil Nadu soils are deficient in micro nutrients. Hence the crop yield obtained is low. Farmers are unaware about the micro nutrient mixture application to sesame	-	Demonstration of TNAU micro nutrient mixture application to irrigated sesame	1	1	--	--					TNAU MN mixture: 18 kgs
11	Plant protection	Brinjal	Shoot and fruit borer damage is severe. The farmers not known on IPM methods	-	Demonstration of eco-friendly pest management in brinjal	4	-	2						<i>Pseudomonas fluorescens</i> - 15 kgs <i>Trichogramma chilonis</i> - 10 cc
12	Varietal demonstration	Bhendi	Non adoption of standard fertilizers recommendation – low yield, low income Lack of awareness about plant protection measures	-	Demonstration of bhendi Hybrid CO 4	2	--	-	--	CO 4 bhendi seeds: 5 kgs				
13	Varietal demonstration	Brinjal	Root rot and nematode problem in Brinjal	-	Demonstration of grafted brinjal	4	--	--	2					Grafted brinjal: 1000 nos

14	Crop Management	Snakegourd	Lack of awareness about newly released variety of snake gourd	-	Demonstration of ICM in Snakegourd	3	--	--	2	Snake gourd seeds PLR 1 : 5 kgs				<i>T.viride: 10 kgs</i> <i>P. fluoreescens: 10 kgs</i>
15	Crop Management	Cashew	Low yield due to improper management practices Lack of awareness about pruning and foliar nutrition	-	Demonstration of crop management practices for improving yield in cashew	3	2	2	--					19:19:19: 50 kgs MAP: 50 kgs Boron: 5 kg Panchagavya : 20 lite
15	Value addition	Value addition in varagu	Lack of technical knowledge in the preparation of profitable value added products from Varagu–Noodles	-	Demonstration of CO3 varagu for nutritious for fibre rich nutritious noodles preparation	4	3	5	4					
16	Fodder crops	Fodder crops	Cultivating mono fodder Poor yield Lack of awareness about other fodder crops.	-	Demonstration of fodder crops	5	2	6	--		CO (FS) 500g Velimasal: 4000g Fodder Cow pea: 4000 g			
10	Value addition	Value addition in cashew apple juice	Wastage of cashew apple Lack of awareness about preparation of value added products in cashew apple.	-	Demonstration of preserved cashew apple juice for commercialization	4	3	--	4					
11	Fish farming	Fish Farming	Under utilization of water resources available in villages	-	Demonstration of composite fish farming in farm ponds	2	--	--	--					Catla: 5000 Rohu: 5000 Mirgal: 5000 Feed: 100 kg

### 3. B2. Details of technology used during reporting period

S. No	Title of Technology	Source of technology	Crop/ enterprise	Number of programmes conducted			
				OFT	FLD	Trainin g	Others (Specify)
1	2	3	4	5	6	7	8
1	Assessment of Suitable confectionary groundnut variety for Cuddalore district	TNAU Coimbatore, 2016 and Junagadh, 2008	Groundnut	10	-	2	Demonstration of seed treatments with biofertilizers Demonstration of Groundnut rich application Demonstration of solar trap for pest management
2	Assessment of suitable low glycemic index rice variety	Jayashankar Telangana State Agricultural University, 2015	Paddy	5		3	Demonstration of seed treatments with biofertilizers Demonstration of Micro nutrient application Demonstration of IPM for pest and disease management
3	Assessment of suitable Ragi variety for Rainfed tract of Cuddalore District	CO 15 TNAU, 2013 ML365: UAS, Bangaluru 2008	Ragi	5		2	Demonstration of seed treatment Demonstration of MN mixture application
4	Assessment of suitable rice fallow black gram variety	LBG 752: ANGRAU, A.P, 2009 PU- 31: G.B. Pant Agri. University, Uttarakhand, 2009 Sulata: BCKV, West bengal, 2009	Black gram	5		2	Demonstration of seed treatment Demonstration of MN mixture application Demonstration of Pulse wonder spray
5	Assessment of suitable rice fallow sesame	Thilarani: KAU 2004 Hima: RARS, Jagtial, A.P, 2006	Sesame	5		3	Demonstration of seed treatment Demonstration of Mn mixture application
6	Assessment of nutri-pellet pack technology in Chilli	TNAU, 2014	Chilli	10		3	Demonstration of nutri-pellet pack sowing seeds Demonstration of IPM practices for pest and disease management
7	Assessment of control methods for stem and root borer in Cashew	IIHR (2013)	Cashew	10		2	Demonstration of foliar spray of water soluble fertilizers Demonstration of healer and sealer in cashew
8	Demonstration of submergence tolerant paddy variety CR1009 Sub 1 in Cuddalore District	TNAU (2015)	Paddy	-	20	2	Demonstration of SRI method Demonstration of machine transplanting in paddy Demonstration of seed treatments methods Demonstration of rouging operation for seed production

9	Demonstration of paddy variety TPS 5 of Cuddalore District	TNAU (2014)	Paddy	-	20	2	Demonstration of SRI method Demonstration of machine transplanting in paddy Demonstration of seed treatments methods Demonstration of rouging operation for seed production
10	Demonstration of TKM 13 paddy variety for samba season	TNAU (2015)	Paddy		10	2	Demonstration of SRI method Demonstration of machine transplanting in paddy Demonstration of seed treatments methods.
11	Demonstration of pani pipe-indicator tool of AWD in paddy	IRRI, Philippines (2012)	Paddy		6	3	Demonstration of SRI method Demonstration of machine transplanting in paddy Demonstration of seed treatments methods Demonstration of pani pipe technology
12	Demonstration of IPM for blast disease in samba paddy	TNAU (2012)	Paddy		20	2	Demonstration of seed treatment and seedling treatment Demonstration of post emergence herbicide application Demonstration of IPM practices for pest and disease management
13	Demonstration of integrated crop management in maize CO 6	TNAU (2012)	Maize		10		Demonstration of seed treatment Demonstration of pest and disease management
14	Demonstration of TNAU micro nutrient mixture application to irrigated sesame	TNAU, CPG- 2012	Sesame		7	2	Demonstration of seed treatment Demonstration of pest and disease management
15	Demonstration of grafted brinjal	TNAU, 2015	Brinjal		10	4	Demonstration of grafting technology Demonstration of Fertilizer and micro nutrient application
16	Demonstration of eco-friendly pest management in brinjal	TNAU (2013)	Brinjal	-	15	2	Demonstration of seed treatment Demonstration of IPM practices Demonstration of Micro nutrients application
17	Demonstration of bhendi CO 4 hybrid	TNAU (2016)	Bhendi		10	3	Demonstration of seed treatment Demonstration of IPM practices Demonstration of Micro nutrients application

18	Demonstration of ICM in snakegourd	TNAU CPG, 2013	snakegourd		8	3	Demonstration of seed treatment Demonstration of IPM practices Demonstration of Micro nutrients application
19	Demonstration of fodder crops	CO (CN) 5 : 2012, Fodder Sorghum CO(FS) 31: 2014	Fodder crops		5	4	Demonstration of fodder cultivation viz., planting
20	Demonstration of composite fish farming in farm ponds		Fish farming		3	2	Demonstration of fish farming and feeding.
21	Demonstration of preserved cashew apple juice for commercialization	KAU, Thrissur 2011.	Cashew apple juice		10	3	Demonstration of preparation of cashew apple juice Preservation of cashew apple juice
22	Demonstration of CO3 varagu for fibre rich nutritious noodles preparation	H.Sc. College & RI, TNAU, 2013.	Varagu noodles		10	2	Preparation of varagu noodles
23	Demonstration of crop management practices for improving yield in Cashew	TNAU (2015)	Cashew		5	2	Demonstration of pruning technique Demonstration of spray of foliar nutrition
					<b>50</b>	<b>169</b>	<b>55</b>
							--

### 3. B2 contd..

No. of farmers covered															
OFT				FLD				Training				Extension activities			
General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
41	2	6	1	135	10	21	3	3575	914	1176	438	1401	273	457	148

### 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
Varietal Evaluation	3	2	1							6
Integrated Crop Management								1		1
Nutrient management					1					1
Resource Conservation Technology										
Others										
<b>Total</b>	<b>3</b>	<b>2</b>	<b>1</b>		<b>1</b>			<b>1</b>		<b>8</b>

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

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

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

**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
Varietal evaluation	Paddy	Assessment of suitable low glyceemic index rice variety	5	5	2.0
	Groundnut	Assessment of suitable confectionary groundnut variety for Cuddalore district	6	6	2.4
	Ragi	Assessment of suitable Ragi variety for Rainfed tract of Cuddalore District	5	5	2.0
	Blackgram	Assessment of suitable rice fallow black gram variety	5	5	2.0
	Sesame	Assessment of suitable rice fallow sesame	5	5	2.0
Nutrient management	Chilli	Assessment of nutripellet pack technology in Chilli	10	10	4
ICM	Cashew	Assessment of control methods for stem and root borer in Cashew	10	10	4
Resource conservation					
Total			50	50	18.4

**4.B.2. Technologies refined under various crops : Nil**

**4.B.3. Technologies assessed under livestock and other enterprises : Nil**

**4.B.4. Technologies refined under livestock and other enterprises : Nil**

#### 4.C. 1. Results of technologies assessed

##### OFT 1. Assessment of suitable low glycemic index paddy variety

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Paddy	Irrigated	Rice is a staple food in India- Number of diabetic patient increasing day by day Non availability of low GI rice variety in Tamil Nadu	Assessment of suitable low glycemic index paddy variety	5	Technology option: 1 (Farmers' practice – BPT 5204)  Technology option 2: RNR 15048 Monikker  Technology Option 3: Madhuraj 55	Yield (q/ha)  Days to maturity  Net income  B: C ratio	63.04  118  54571  2.17	The RNR 15048 had given an yield of 63.04 q/ha when compared to check BPT 5204 54.17q/ha. The variety matured 20 days earlier as compared to check.	The variety matured earlier and suitable for terminal drought. There is no pest and disease incidence recorded in RNR 15048.	--	--

Technology Assessed	Source of Technology	Production	Unit (q/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option: 1 (Farmers' practice – BPT 5204)	--	54.17	q/ha	42916.8	1.98
Technology option 2: RNR 15048	Jayashankar Telangana State Agricultural University, 2015	63.04	q/ha	54571.8	2.17
Technology option 3: Madhuraj 55	IGKV, Raipur	52.09	q/ha	37245	1.80



**4.C.1. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following Details**

1.	Title of technology assessed	:	Assessment of suitable low glycemic index paddy variety			
2.	Problem definition	:	Rice is a staple food in India- Number of diabetic patient increasing day by day Non availability of low GI rice variety in Tamil Nadu			
3.	Details of technologies selected for assessment	:	Technology option 1	Technology option 2	Technology Option 3	
4.	Source of technology	:	(Farmers' practice – BPT 5204)	RNR 15048	Madhuraj 55	
5.	Production system and thematic area	:	Irrigated and varietal demonstration			
6.	Performance of the technology with performance indicators	:	The RNR 15048 had given a yield of 63.04 q/ha when compared to check BPT 5204 (54.17q/ha). The variety matured 20 days earlier as compared to check. Whereas Madhuraj 55 variety is medium duration and given low yield (52.09q/ha) when compared to BPT 5204. The variety is also expressed less number tiller per hill. The variety matured earlier and suitable for terminal drought. There is no pest and disease incidence recorded in RNR 15048.			
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Seed treatment	RDF	Weed management	Pest and disease management
			80%	85%	75%	80%
8.	Final recommendation for micro level situation	:	The variety is suitable for delta as well as moisture stress area.			
9.	Constraints identified and feedback for research	:				
10.	Process of farmers participation and their reaction	:	The farmers are impressed with the variety RNR 15048 due to less cost for plant protection and early maturity. The farmers kept their produce as seed purpose for coming season.			

**OFT 2. Assessment of suitable ragi varieties for Cuddalore district**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Ragi	Irrigated	Low yield in existing varieties	Assessment of suitable Ragi varieties for Cuddalore district	5	Varieties CO 15  ML 365	Yield  No.of tillers /hill	While comparing the varieties, the variety ML 365 is observed to be the high yielding variety and suitable for the district.	Co15 Yield: 21.31 q/ha ML 365 Yield: 23.74 q/ha	The farmers opined that the variety ML 365 has performed very well and given more yield. Further impressed with the variety ML 365 due to its early maturity (105 days)	-	--

Technology Assessed	Source of Technology	Production	Unit (q/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option: 1 (Farmers' practice – Local variety)	-	16.86	q/ha	15130	2.49
Technology option 2: CO 15	TNAU 2013	21.31	q/ha	20123	2.70
Technology option 3 : ML 365	UAS, Bangaluru-2008	23.74	q/ha	23768	3.01

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

1.	Title of technology assessed	:	<b>Assessment of suitable Ragi variety for Cuddalore District</b>		
2.	Problem definition	:	Low yield in existing varieties		
3.	Details of technologies selected for assessment	:	Technology option 1	Technology option 2	Technology option 3
4.	Source of technology	:	(Farmers' practice – Local variety	CO 15 TNAU, 2013	ML 365 UAS , Bangaluru, 2008
5.	Production system and thematic area	:	Irrigated and varietal demonstration		
6.	Performance of the technology with performance indicators	:	The varieties CO 15 and ML 365 performed well under rainfed condition in Cuddalore district and the varieties yielded 21.31 q/ha and 23.74 q/ha respectively. While comparing the varieties, the variety ML 365 is observed to be the high yielding variety and suitable for the district.		
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Transplanting technique	Pest and disease management	
			80%	80%	
8.	Final recommendation for micro level situation	:	The variety is suitable for rainfed areas of Cuddalore District		
9.	Constraints identified and feedback for research	:	-		
10.	Process of farmers participation and their reaction	:	The farmers are impressed with the variety ML 365 due to its high yielding character and early maturity (105 days) where as the CO 15 variety takes 125 days. The farmers are keeping their produce as seed purpose for coming season.		

**OFT 3. Assessment of suitable pearl millet (cumbu) varieties for Cuddalore district**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Pearl millet	Irrigated	Low yield in existing varieties	Assessment of suitable pearl millet varieties for Cuddalore district	5	Varieties CO 10 and Pusa composite- 612	Yield	CO 10 Yield: 13.36 q/ha Pusa composite Yield: 12.54 q/ha	The variety CO 10 performed well and given 13.26 q/ha. The ear head is compact and bold seeded.	The farmers opined that the variety CO 10 has performed very well and given more yield	-	--

Technology Assessed	Source of Technology	Production	Unit (q/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option: 1 (Farmers' practice – Local variety)	-	8.20	q/ha	8863	2.06
Technology option 2: CO 10	TNAU 2014	13.36	q/ha	16027	2.71
Technology option 3 : Pusa composite 612	IARI, 2011	12.54	q/ha	14469	2.55

**4.C.3. Details of each on farm trial for assessment to be furnished in the following format separately as per the following Details**

1.	Title of technology assessed	:	Assessment of suitable pearl millet (cumbu) variety for Cuddalore District		
2.	Problem definition	:	<ul style="list-style-type: none"> <li>❖ Cultivating low yielding local variety</li> <li>❖ Lack of awareness about the new drought tolerant cumbu variety</li> </ul>		
3.	Details of technologies selected for assessment	:	Technology option 1	Technology option 2	Technology option 3
4.	Source of technology	:	(Farmers' practice – Local variety	CO 10 TNAU 2014	Pusa composite 612 IARI 2011
5.	Production system and thematic area	:	Irrigated and varietal demonstration		
6.	Performance of the technology with performance indicators	:	The varieties CO 10 and Pusa composite 612 were compared for their performance. The variety CO 10 performed well and given 13.26 q/ha. The ear head is compact and bold seeded. The variety is resistant to downy mildew.		
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Suitable varieties	Pest and disease management	
			90 %	80%	
8.	Final recommendation for micro level situation	:	The variety is suitable for rainfed areas of Cuddalore District		
9.	Constraints identified and feedback for research	:	-		
10.	Process of farmers participation and their reaction	:	The farmers are impressed with the variety CO 10 due to its high yielding character. The earhead is compact and bold seeded.		

**OFT 4: Assessment of suitable confectionary groundnut variety for Cuddalore district**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Groundnut	Irrigated	Non availability of suitable confectionary groundnut variety	Assessment of suitable confectionary groundnut variety for Cuddalore district	6	TO1 – Farmer’s practice- Local variety TO2- G7 TO3- VRI 8	Number of pods /plant 100 seed weight (g) Pod yield (q/ha)	33.4 51.3 39.68 (Results on the TO <sub>3</sub> – the best technology alone given here)	Among the varieties assessed, VRI 8 has given more yield and recorded less incidence of root rot disease and more 100 seed weight .	Farmers felt that G7 variety was more susceptible to root rot disease particularly in kharif. Farmers preferred all the new varieties when to the local control. Farmer felt that VRI 8 variety has longer duration and has more watery pods and farmer needs lesser duration with bold seeded.	No	Does not arise

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Technology assessed	Source of technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
TO1 – Farmer’s practice- Local variety	-	27.00	q/ha	44935	1.40
TO2- G7	Junagadh, 2008	36.60	q/ha	91689	1.67
TO3- VRI 8	TNAU, 2016	39.68	q/ha	113395	1.84

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

1.	Title of technology assessed	:	Assessment of suitable confectionary groundnut variety for Cuddalore district				
2.	Problem Definition	:	<ul style="list-style-type: none"> <li>• Non availability of suitable confectionary groundnut variety</li> <li>• Need bold seeded variety for export purpose</li> </ul>				
3.	Details of technologies selected for assessment	:	Technology option 1 - Farmer's practice- Local variety	Technology option 2- G7	Technology option 3: VRI 8		
4.	Source of technology	:	-	Junagadh, 2008	TNAU, 2016		
5.	Production system and thematic area	:	Varietal evaluation				
6.	Performance of the technology with performance indicators	:	Among the varieties assessed, VRI 8 has given more yield (39.68 q/ha which is 19.46 % increased over control) and recorded less incidence of root rot disease (1.4 %) which is 4.8% less than G7 and 6.0 % less than local variety. G7 also given more yield (36.60 q/ha) when compared to local variety (27.00 q/ha). The yield attributing characters viz., No. of pods per plant and 100 seed weight were more in VRI 8 than G7.				
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques		Seed treatment	Agronomic practices	Observation on pest and disease	Application of IPM for the pest and disease	Yield assessment
			70%	60%	60%	50%	40%
8.	Final recommendation for micro level situation	:	As the net return is more due to medium bold seeded and more marketable price for the VRI 8, the farmers can go for cultivating the variety and is recommended for large scale adoption.				
9.	Constraints identified and feedback for research	:	After the new varieties have been disseminated in the wider farming population, it will be necessary to conduct formal surveys of technology adoption with larger samples. Follow-up studies with farmers who have been exposed to new varieties in on-farm trials and demonstrations provide a cost-effective approach to assessing the acceptability and adoption potential of new varieties				
10.	Process of farmers participation and their reaction	:	The farmers have realized that the variety is suitable for rabi season especially during North east monsoon. Establishment of a network of small and medium seed growers in rainfed areas for the supply of quality seeds, and also to create awareness about new varieties among the farmers				

**OFT 5: Assessment of suitable rice fallow Sesame variety**

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Sesame	Rice fallow	1.Exploring the possibility of Rice fallow sesame in Cuddalore district 2.Lack of awareness about suitable variety for rice fallow condition	Assessment of suitable rice fallow sesame variety	5	Technology option: 1 (Farmers practice)- Local Technology option: 2 - Thilarani Technology option: 3 - Hima Technology option: 4 – VRI (SV) 2	No. of primary branches No. of capsules/plant 1000 seed weight (Results on the TO <sub>2</sub> – the best technology alone given here)	5.3  70  3.28	Sesamum variety Thilarani has performed well under rice fallow situation when compared other varieties	Sesamum variety Thilarani has given more yield and has more of capsules even at high moisture stress level and with stand the moisture stress well.	No	Does not arise



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<b>Technology Assessed</b>	<b>Source of Technology</b>	<b>Production</b>	<b>Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)</b>	<b>Net Return (Profit) in Rs. / unit</b>	<b>BC Ratio</b>
<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>
Technology option: 1 (Farmers practice) - Local	-	538	kg/ha	10866	1.5
Technology option 2: Thilarani	KAU, 2004	703	kg/ha	19178	1.8
Technology option 3: Hima	RARS, Jagital, AP, 2006	587	kg/ha	12262	1.5
Technology option 4 : VRI (SV)2	TNAU, Coimbatore	644	kg/ha	15744	1.7

**4. C. 5. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details**

1.	<b>Title of Technology Assessed</b>	:	Assessment of suitable rice fallow sesame variety				
2.	<b>Problem Definition</b>	:	Exploring the possibility of Rice fallow sesame in Cuddalore district Lack of awareness about suitable variety for rice fallow condition				
3.	<b>Details of technologies selected for assessment</b>	:	Technology option 1	Technology option 2	Technology option 3	Technology option 4	
4.	<b>Source of technology</b>	:	Farmers practice (ADT 3)	Thilarani	Hima	VRI (SV)2	
5.	<b>Production system and thematic area</b>	:	Varietal evaluation				
6.	<b>Performance of the Technology with performance indicators</b>	:	Among the varieties assessed, Thilarani has given more yield (703 kg/ha) when compared to Hima (587 kg/ha), VRI (SV) 2 (644 kg/ha), and farmers practice of Local (538 kg/ha) .The increase in yield in Thilarani is 8.4 per cent over VRI 2 and 16.5 percent over Hima and 23.5 per cent over Farmers practice of local variety .				
7.	<b>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</b>	:	Seed treatment	MN mixture application	INM	IWM	IPM
			85	95	90	75	70
8.	<b>Final recommendation for micro level situation</b>	:	Among the varieties assessed, Thilarani has performed well under rice fallow condition and also it tolerates moisture stress well.				
9.	<b>Constraints identified and feedback for research</b>	:	Nil				
10.	<b>Process of farmers participation and their reaction</b>	:	Farmers were actively participated in seed treatment, sowing and TNAU MN application to crops. They were satisfied with the performance of Thilarani and they have stocked the seeds for next season sowing.				

**OFT 6: Assessment of suitable rice fallow blackgram variety**

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Black gram	Rice fallow	. Non availability of latest variety in rice fallow black gram	Assessment of suitable rice fallow blackgram variety	5	TO <sub>1</sub> : ADT 3 TO <sub>2</sub> : PU 31 TO <sub>3</sub> : Sulata (WBU 109)	No. of pods/plant 100 seed weight Yield (kg/ha) (Results on the TO <sub>3</sub> – the best technology alone given here)	26.1  4.48  788	PU 31 is performing well under rice fallow conditions over Sulata and farmers practice of ADT 3.	PU 31 more number of pods per plant and bolder seeds when compared to Sulata and farmers practice of ADT 3	No	Does not arise

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option: 1 (Farmers practice) ADT 3	TNAU, Coimbatore	6.87	q/ha	39897	3.5
Technology option 2: PU 31	G.B. Pant University, Uttarakand, 2009	7.88	q/ha	46211	3.7
Technology option 3: Sulata (WBU 109)	BCKV, West Bengal, 2009	7.33	q/ha	42322	3.6

**4.C.6. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details**

1.	<b>Title of Technology Assessed</b>	:	Assessment of suitable rice fallow blackgram variety				
2.	<b>Problem Definition</b>	:	Non availability of latest variety in rice fallow blackgram				
3.	<b>Details of technologies selected for assessment</b>	:	Technology option 1 Farmers' practice- ADT 3	Technology option 2: PU 31	Technology option 3: Sulata (WBU 109)		
4.	<b>Source of technology</b>	:	TNAU	Pant university, Uttarakand	BCKV, West bengal		
5.	<b>Production system and thematic area</b>	:	Varietal evaluation				
6.	<b>Performance of the Technology with performance indicators</b>	:	Among the varieties assessed, PU 31 has given more yield (788 kg/ha) when compared to Sulata (733 kg/ha) and farmers practice of ADT 3 (687 kg/ha) .The increase in yield in PU 31 is 7 per cent over Sulata and 12.8 percent over Farmers practice. The yellow mosaic virus disease incidence has occurred only 2 percent when compared to Sulata (20 per cent ) and ADT 3 (15 Per cent )				
7.	<b>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</b>		Season	Sowing and Seed rate	Weeding	Pulse wonder spray	IPM
			80%	85%	55%	100%	75%
8.	<b>Final recommendation for micro level situation</b>	:	PU 31 is performing well under rice fallow conditions. It may be promoted for future use.				
9.	<b>Constraints identified and feedback for research</b>	:	Nil				
10.	<b>Process of farmers participation and their reaction</b>	:	Farmers were participated in all operations and they are satisfied about PU 31 variety and pulse wonder spray to black gram.				

**OFT: 7. Assessment of nutripellet pack technology in chilli cultivation**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Chilli	Irrigated	Lower productivity due to unbalanced and indiscriminate usage of fertilizer	Assessment of Nutripellet pack technology in chilli cultivation	10	TO <sub>1</sub> – Farmers' practice  TO <sub>2</sub> – Application of recommended dose of fertilizers (Basal dose FYM 30t/ha, 30:80:80 kg/ha) Top dressing 30 kg N/ha in equal split on 30, 60, & 90 DAS  TO <sub>3</sub> – Nutri pellet pack technology	Green chilli yield q/ha	148.3 q/ha	yield increased due to continuous release of nutrient	Uniform crop growth was observed in nutria pellet pack trials  Labour cost is reduced in fertilizers application	No	Does not arise

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
TO <sub>1</sub> – Farmers' practice	--	126.3	q/ha	26605	1.74
TO <sub>2</sub> – Application of recommended dose of fertilizers (Basal dose FYM 30t/ha, 30:80:80 kg/ha) Top dressing 30 kg N/ha in equal split on 30, 60, & 90 DAS	TNAU (CPG 2012)	142.3	q/ha	40465	1.86
TO <sub>3</sub> – Nutri pellet pack technology	TNAU (2014)	148.3	q/ha	49695	1.92

**4.C.7. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details.**

1.	<b>Title of technology assessed</b>	:	<b>Assessment of nutri-pellet pack technology in chilli cultivation</b>		
2.	<b>Problem definition</b>	:	<ul style="list-style-type: none"> <li>• Low productivity due to unbalanced and indiscriminate usage of fertilizers</li> </ul>		
3.	<b>Details of technologies selected for assessment</b>	:	Technology option 1  -	Technology option 2  Recommended dose of fertilizer	Technology option 3  Nutri pellet pack technology
4.	<b>Source of technology</b>	:	Farmers' practice	TNAU (CPG 2012)	TNAU (2014)
5.	<b>Production system and thematic area</b>	:	Nutrient management		
6.	<b>Performance of the technology with performance indicators</b>	:	<ul style="list-style-type: none"> <li>➤ Among the technologies, Nutri pellet pack technology has increased fruit yield/ ha (17.51% increased yield over control). However, recommended dose of fertilizer has also increased the yield (12.75 % increased yield over control)</li> <li>➤ Uniform crop growth was observed in nutri pellet pack trials</li> <li>➤ Continuous release of nutrient upto the maturity stage was observed in nutri pellet pack.</li> </ul>		
7.	<b>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</b>		Agronomy practice	INM	IPM
			80%	60%	50%
8.	<b>Final recommendation for micro level situation</b>	:	Nutri pellet pack technology in chilli is useful for effective cultivation, since uniform maintenance of plant population and more yield is achieved		
9.	<b>Constraints identified and feedback for research</b>	:	Nil		
10.	<b>Process of farmers participation and their reaction</b>	:	The farmers have realized the nutri pellet pack technology in chilli by observing more yield and uniform population. Besides the farmers also realized the fertilizer usage in the nutri pellet pack technology		

**OFT 8. Assessment of control methods for stem and root borer in cashew**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Cashew	Rainfed	Stem and root borer – annually 20% loss of tree	Assessment of control methods for stem and root borer in cashew	10	Technology option: 1 (Farmers' practice – drenching with insecticide) Technology option 2: Healer and Sealer- Arka Sanjeevani (5 ml dichlorvos + 40 g COC in 1 lit of water, then added with arka sanjeevani @ 750g/750 ml of prepared solution) Technology option 3: Painting with coal tar + kerosene (1:2) at Nov- Dec and drenching with chloropyriphos (0.2%)	Tree infestation (%) Yield of nut	Trial is in progress. The tree is in fruit bearing stage. The nut yield will be realized during June and July of 2017. The stem and root borer incidence was recorded during March, 2017. The average incidence as follows. TO1 (FP): 16% TO2: 3.9% TO3: 4.6% (Tree with 50 % bark damage is considered as infested tree)				Does not arise

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option: 1 (Farmers' practice – drenching with insecticide)	--	2.70	q/ha	<b>Trial is in progress</b>	
Technology option 2: Healer and Sealer- Arka Sanjeevani (5 ml dichlorvos + 40 g COC in 1 lit of water, then added with arka sanjeevani @ 750g/750 ml of prepared solution)	IIHR (2013)	2.81	q/ha		
Technology option 3: Painting with coal tar + kerosene (1:2) at Nov- Dec and drenching with chloropyriphos (0.2%)	TNAU (2012)	2.75	q/ha		

\* So for two harvests were made and complete harvest will be done during June, 2017



**4.C.8. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following Details**

1.	<b>Title of technology assessed</b>	:	<b>Assessment of control methods for stem and root borer in cashew</b>		
2.	<b>Problem definition</b>	:	In cashew, 20% tree loss is observed due to stem and root borer		
3.	<b>Details of technologies selected for assessment</b>	:	Technology option 1	Technology option 2	Technology option 3
4.	<b>Source of technology</b>	:	(Farmers practice – drenching with insecticide)	Healer and Sealer- Arka Sanjeevani (5 ml dichlorvos + 40 g COC in 1 lit of water, then added with arka sanjeevani @ 750g/750 ml of prepared solution)	Painting with coal tar + kerosene (1:2) at Nov- Dec and drenching with chloropyriphos (0.2%)
5.	<b>Production system and thematic area</b>	:	Rainfed and plantation crops		
6.	<b>Performance of the technology with performance indicators</b>	:	Trial is in progress. The tree is in fruit bearing stage. The nut yield will be realized during June and July of 2017. The stem and root borer incidence was recorded during March, 2017. The average incidence as follows. TO1 (FP): 16% TO2: 3.9% TO3: 4.6%		
7.	<b>Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</b>		Identification of stem and root borer damage	Application of insecticide	Application of healer and sealer
			100%	80%	100%
8.	<b>Final recommendation for micro level situation</b>	:	As for as pest incidence is concern, healer and sealer is effective in controlling the stem and root borer incidence in cashew.		
9.	<b>Constraints identified and feedback for research</b>	:			
10.	<b>Process of farmers participation and their reaction</b>	:	The farmers were impressed with performance of the healer and sealer in controlling the borer and no further incidence in the tree applied with healer and sealer.		

**4. D. Results of Technologies Refined:**

**-Nil**

**PART. V - FRONTLINE DEMONSTRATIONS**

**5. A. Summary of FLDs implemented during 2016-17**

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	Irrigated	Kharif 2016	Paddy	CR1009 Sub 1	-	Variety demonstration	Demonstration of submergence tolerant paddy variety CR1009 Sub 1 in Cuddalore District	8.0	8.0	4	16	20	--
2	Cereals	Irrigated	Rabi 2016	Paddy	TPS 5	-	Variety demonstration	Demonstration of paddy variety TPS 5 of Cuddalore District	8.0	8.0	3	17	20	--
3	Cereals	Irrigated	Rabi 2016	Paddy	BPT 5204		Crop management	Demonstration of pani pipe indicator tool of AWD in paddy	2.4	2.4	1	5	6	--
4	Cereals	Irrigated	Rabi 2016	Paddy	TKM 13		Variety demonstration	Demonstration of TKM 13 paddy variety for samba season	4	4	1	9	10	--
5	Cereals	Irrigated	Rabi 2016	Paddy	CR 1009		Plant Protection	Demonstration of IPM for blast disease in samba paddy	8	8	3	17	20	--
6	Millets	Irrigated	Kharif 2016	Maize	--	CO 6	Crop management	Integrated crop management in maize CO 6	4	4	1	9	10	--
7	Oilseeds	Irrigated	Rabi 2016	Sesame	VRI 2		Crop management	Demonstration of TNAU micro nutrient mixture application to irrigated sesame	2.8	2.8	1	6	7	--
8	Vegetables	Irrigated	Kharif 2016	Brinjal	PLR 2		Plant protection	Demonstration of eco-friendly pest management in brinjal	6	6	2	13	15	--
9	Vegetables	Irrigated	Kharif 2016	Snake gourd	PLR 1	--	Crop management	Demonstration of ICM in Snake gourd	3.2	3.2	0	8	8	--
10	Vegetables	Irrigated	Kharif 2016	Bhendi	--	CO 4	Variety demonstration	Demonstration of Bhendi hybrid CO 4	2	2	2	8	10	--
11	Vegetables	Irrigated	Kharif 2016	Brinjal	PLR 2		Crop management	Demonstration of grafted brinjal	2	2	0	10	10	--

12	Plantation crop	Rainfed	Throughout the year	Cashew	VRI 3		Crop management	Demonstration of crop management practices for improving yield in cashew	2	2	0	5	5	--
13	Value addition	--	Rabi 2016	Varagu noodles	--		Value addition	Demonstration of CO3 varagu for nutritious for fibre rich nutritious noodles preparation	10	10	3	7	10	--
14	Value addition	--	Rabi 2016	Cashew apple juice preparation	--		Value addition	Demonstration of preserved cashew apple juice for commercialization	10	10	3	7	10	--
15	Fodder crops	Irrigated	Kharif 2016	Fodder crops	Fodder sorghum Velimal		Varietal introduction	Demonstration of fodder crops	5 demo	5 demo	0	5	5	--
16	Fish farming	Irrigated	Kharif and rabi 2016	Fish farming	Rohu Catla Mirgal		Fish farming	Demonstration of composite fish farming in farm ponds	3 ponds	3 ponds	0	3	3	--

### 5. A. 1. Soil fertility status of FLDs plots during 2016-17

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	Irrigated	Kharif 2016	Paddy	CR1009 Sub 1	-	Variety demonstration	Demonstration of submergence tolerant paddy variety CR1009 Sub 1 in Cuddalore District	L	M	H	Green manure
2.	Cereals	Irrigated	Rabi 2016	Paddy	TPS 5	-	Variety demonstration	Demonstration of paddy variety TPS 5 of Cuddalore District	L	M	H	Paddy
3.	Cereals	Irrigated	Rabi 2016	Paddy	BPT 5204		Crop management	Demonstration of pani pipe indicator tool of AWD in paddy	L	M	H	Blackgram
4.	Cereals	Irrigated	Rabi 2016	Paddy	TKM 13		Variety demonstration	Demonstration of TKM 13 paddy variety for samba season	L	M	H	Blackgram
5.	Cereals	Irrigated	Rabi 2016	Paddy	CR 1009		Plant Protection	Demonstration of IPM for blast disease in samba paddy	L	M	H	Blackgram
6.	Millets	Irrigated	Kharif 2016	Maize		CO 6	Crop management	Integrated crop management in maize CO 6	L	M	H	Sorghum
7.	Oilseeds	Irrigated	Rabi 2016	Sesame	VRI 2		Crop management	Demonstration of TNAU micro nutrient mixture application to irrigated sesame	L	M	H	Paddy
8.	Vegetables	Irrigated	Kharif 2016	Brinjal	PLR 2		Plant protection	Demonstration of eco-friendly pest management in brinjal	L	M	H	Groundnut
9.	Vegetables	Irrigated	Kharif 2016	Snake gourd	PLR 1	--	Crop management	Demonstration of ICM in Snake gourd	L	M	H	Groundnut
10.	Vegetables	Irrigated	Kharif 2016	Bhendi	--	CO 4	Variety demonstration	Demonstration of Bhendi hybrid Co 4	L	M	H	Blackgram
11.	Vegetables	Irrigated	Rabi 2016	Brinjal	PLR 2		Crop management	Demonstration of grafted brinjal	L	M	H	Groundnut
12.	Plantation crop	Rainfed	Throughout the year	Cashew	VRI 3		Crop management	Demonstration of crop management practices for improving yield in cashew	L	M	H	Cashew
13.	Value addition	--	Rabi 2016	Varagu noodles	--		Value addition	Demonstration of CO3 varagu for nutritious for fibre rich nutritious noodles preparation	L	M	H	Sorghum
14.	Value addition	--	Rabi 2016	Cashew apple juice preparation	--		Value addition	Demonstration of preserved cashew apple juice for commercialization	L	M	H	Cashew

15.	Fodder crops	Irrigated	Kharif 2016	Fodder crops Fodder sorghum Velimasal	--		Varietal introduction	Demonstration of fodder crops	L	M	H	Fallow land
16.	Fish farming	Irrigated	Kharif and rabi 2016	Fish farming	Rohu Catla Mirgal		Fish farming	Demonstration of composite fish farming in farm ponds				Pond

## .B. Results of Frontline Demonstrations

### 5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Paddy	Demonstration of submergence tolerant paddy variety CR1009 Sub 1 in Cuddalore District	CR1009 Sub 1	--	Irrigated	20	8	80.32	63.00	71.49	53.26	34.54	54114	125116	71001	2.32	61106	93205	32098	1.52
Paddy	Demonstration of paddy variety TPS 5 of Cuddalore District	TPS 5		Irrigated	20	8	67.72	45.67	58.35	49.37	18.0	55674	101535	45861	1.82	61459	85914	24455	1.40
Paddy	Demonstration of TKM 13 paddy variety in samba season	TKM 13		Irrigated	10	4	79.5	74.21	76.11	67.56	12.66	46892	107311	60419	2.29	43854	81069	37215	1.85
Paddy	Demonstration of pani pipe indicator tool of AWD in paddy	BPT 5204		Irrigated	6	2.4	60.50	55.90	57.30	51.77	9.7	59917	123202	63286	2.1	62567	111334	48768	1.8
Paddy	Demonstration of IPM for blast disease in samba paddy	CR 1009		Irrigate	20	8	71.14	66.64	69.18	60.10	14.97	46434	110701	59624	2.16	43416	89850	46434	2.06

Maize	Integrated crop management in maize CO 6		CO 6	Irrigated	10	4	76.7	69.1	73.79	61.21	20.55	53350	118064	64714	2.2	44910	78641	33731	1.75
Sesame	Demonstration of TNAU micro nutrient mixture application to irrigated sesame	VRI 2	--	irrigated	7	2.8	7.47	6.75	7.11	6.24	12.2	22579	42660	19738	2.1	21479	37414	15655	1.9
Brinjal	Demonstration of eco-friendly pest management in brinjal	PLR2		Irrigated	15	3	320	269	298.1	291.7	2.41	58100	208699	150599	3.59	62739	204197	141458	3.25
Snake gourd	Demonstration of ICM in Snake gourd			Irrigated	8	3.2	278.7	259.7	267.6	219.7	21.80	100930	280126	179196	2.78	97093	215837	11874	2.22
Bhendi	Demonstration of Bhendi hybrid CO 4		CO 4	Irrigated	10	2.0	265.7	250.0	259.1	219.2	18.23	78100	231358	153258	2.96	74513	181647	107135	2.44
Cashew	Demonstration of crop management practices for improving yield in cashew	VRI 3	--	Irrigated	5	2.0	5.10	4.64	4.85	4.37** *	<b>Trial is in progress</b>								
Brinjal	Demonstration of grafted brinjal	PLR2	--	Irrigated	5	0.2	<b>Trial is in progress</b>												
Value Addition in varagu	Demonstration of CO3 varagu for nutritious for fibre rich nutritious noodles preparation	CO 3 varagu	--	Rainfed	10	4ac	16.5	14.2	15.4	11.70	31.62 (Yield parameter of crop cultivation)	510 (Economics of noodles preparation)	2400	1890	4.71	410	1400	990	3.41

Value addition in cashew apple juice	Demonstration of preserved cashew apple juice for commercialization	Cashew apple juice	VRI3	Nil	-	10	-	-	-	-	Local available variety	620	1600	980	2.58	No check due to no cashew apple product is available in the market
Fodder crops	Demonstration of fodder crops		CO (CN) 5	Irrigated	5	1	1264	1200	1233	1193.8 (yield of Co 3 grass fodder)	It is observed that feeding of animals with mixed fodder crops viz., grass and legume fodder increases the milk yield in animals as compared with the feeding of mono fodder (grass fodder). An average increase of 0.980 lit/day is observed.					
		CO (FS) 31					500	452	477.9							
		CO (FC) 8					125	105	114							
		Velimal					25.5	20.1	235.4							
Fish farming	Demonstration of composite fish farming in farm ponds	Rohu catla Mirgal		Irrigated	7	2.8	3890	3200	3638	-	-	109571	327407	217835	2.99	-

\* 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

\*\*\* **Yield of only two harvest. Complete harvest will be done during June, 2017**

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

<b>Data on other parameters in relation to technology demonstrated</b>		
Parameter with unit	Demo	Check
<b>Demonstration of submergence tolerant paddy variety CR1009 Sub 1 in Cuddalore District</b>		
No. of productive tillers	28.3	20.9
No. of grains /panicle	225	181
<b>Demonstration of paddy variety TPS 5 of Cuddalore District</b>		
No. of productive tillers	25	21
No. of grains /panicle	215	186
<b>Demonstration of IPM for blast disease in samba paddy</b>		
No. of productive tillers	22.8	17.5
No. of grains /panicle	202	180
Blast incidence (No. of lesion per leaf)	0.93	2.33
<b>Demonstration of TKM 13 paddy variety in samba season</b>		
No. of productive tillers	23.97	17.53
1000 grain weight (g)	14.45	13.71
<b>Demonstration of pani pipe indicator tool of AWD in paddy</b>		
No of tillers /m <sup>2</sup>	284.5	261.8
1000 grain weight (g)	14.8	14.3
<b>Integrated crop management in maize CO 6</b>		
Cob length (cm)	19.82	18.4
No. of grains/cob	537.4	488.3
<b>Demonstration of TNAU micro nutrient mixture application to irrigated sesame</b>		
No. of capsules/plant	61.2	53.3
1000 seed weight (g)	2.8	2.5
<b>Demonstration of eco-friendly pest management in brinjal</b>		
Fruit borer incidence (%)	15.52	20.87
Shoot damage incidence (%)	11.45	16.97
No of fruit borer adults captured in trap	78.65	--
<b>Demonstration of ICM in Snake gourd</b>		
No of fruits per plant	28.33	23.75
Per cent fruits damage by fruit fly	7.86	19.77
<b>Demonstration of Bhendi hybrid CO 4</b>		
No of fruits per plant	28.6	25.8
Fruit length (cm)	13.45	10.74



<b>Demonstration of crop management practices for improving yield in cashew</b>		
100 nut weight (g)	698.68	677.54
Shelling per centage	28.86	28.46
<b>Demonstration of CO3 varagu for nutritious for fibre rich nutritious noodles preparation</b>		
Yield / ha( Nos)	15.40	11.70
Overall acceptability score (color,favour, taste and apperance)	07(9 point scale)	-
Self life of noodles	6 months	-
<b>Demonstration of preserved cashew apple juice for commercialization</b>		
Juice yield ml/kg	400ml	-
Overall acceptability score (color,favour, taste and apperance)	08/9(9 point scale)	-
Self life of products	4 months	-
Net return(Rs./ha)	800	-

**5.B.2. Livestock and related enterprises : Nil**

**5.B.3. Fisheries :**

**FLD on Demonstration of composite fish farming in farm ponds**

Crop	Name of the technology demonstrated	Variety	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	** BCR
						H	L	A						
Fish farming	Demonstration of composite fish farming in farm ponds	Rohu catla Mirgal	Irrigated	7	2.8	3890	3200	3638	-	-	109571	327407	217835	2.99

**5. B. 4. Other enterprises**

**: Integrated farming system**

**Results of FLDs conducted during 2016-17**

**1. A. Integrated Farming System - Wet land situation – 2016-17**

Crop	Name of the technology demonstrated	Farming situation	Components included	No. of Demo.	Area (ha)	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Farming system	Integrated Farming System	Wet land	Crop, Fish, poultry and vermicompost	3	3	127500	474266	<b>346766</b>	3.71	33520	138300	105050	4.15

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

Data on other parameters in relation to technology demonstrated				Check		
Parameter with unit	Total cost	Gross return	Net return	Total cost	Gross return	Net return
Crop(Rice-maize)	76550	310230	233680	33250	138300	105050
Fish	24500	113750	89250	-	-	-
Chicks	2700	13550	10850	-	-	-
Vermi compost	23750	36756	12986	-	-	-

**Comparison of conventional cropping system and integrated cropping system**

Components	Cost of cultivation	Gross return	Net return	B:C ratio	Employment generation (man days /year)
Conventional cropping	33250	168300	105050	1:4.15	875
IFS	127500	474266	346766	1:3.71	1162
Additional advantage of IFS over conventional cropping	- 94250 (Expenditure)	305966	241716	-	387 man days

### 1.B. Integrated Farming System - Dry land situation – 2016-17

Crop	Name of the technology demonstrated	Farming situation	Components included	No. of Demo.	Area (ha)	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Farming system	Integrated Farming System	Dry land	Crop, fodder and goat	2	2	27690	62070	24188	2.24	12750	23456	10706	1.83

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

Data on other parameters in relation to technology demonstrated				Check		
Parameter with unit	Total cost	Gross return	Net return	Total cost	Gross return	Net return
Crop (Food)	6215	12675	6460	12750	23456	10706
Crop (Fodder)	4725	9675	4950	-	-	-
Goat	16750	39720	12778	-	-	-

#### Comparison of conventional cropping system and integrated cropping system

Components	Cost of cultivation	Gross return	Net return	B:C ratio	Employment generation (man days /year)
Conventional cropping	12750	23456	10706	1.83	76
IFS	27690	62070	24188	2.24	312
Additional advantage of IFS over conventional cropping	-14940	38614	13482	-	236

**5.B.5. Farm implements and machinery : Nil**

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

Sl.No.	Activity	Number of activities organized	Number of participants	Remarks
1	Field days	6	267	-
2	Farmers Training	2	124	-
3	Media coverage (Radio programme)	6	MASS	-
4	Training for extension functionaries			-
5	Others (Please specify)			-
	a. Extension literatures prepared and distributed			
	b. News paper coverage			

**Farmer's Field School ecofriendly crop management in paddy**

Name of the village: Sathukudal, Vridhachalam Block

Number of participants: 30

No of classes: 14

Technology demonstrated

- Seed treatment with biofertilizers and bio control agents
- Use of green manure and green leaf manure
- Use of vermicompost
- Foliar spray of *Pseudomonas fluorescens* @ 0.2% at 20 and 40 DAP
- Preparation of panchagavya and spray
- Spray of neem oil and Neem seed kernal extract
- Setting of yellow sticky trap and pheromone trap
- Use of egg parasites *Trichogramma chilonis* for leaf folder management

Knowledge level in the FFS

- Pre entry: 64%
- Post Entry: 94 %

**Knowledge spread in the FFS**

Sl.No	Category	Pre entry	Post entry	Remarks
1	Seed treatment with biofertilizers and bio control agents	Partly known	Fully known	Now using
2	Use of green manure and green leaf manure	Partly known	Fully known	Now using
3	Use of vermicompost	Partly known	Fully known	Now using upon availability

4	Foliar spray of <i>Pseudomonas fluorescens</i> @ 0.2% at 20 and 40 DAP	Not awared	Fully known	Now using upon availability
5	Preparation of panchagavya and spray	Awared but not used	Fully known	Now using
6	Spray of neem oil and Neem seed kernal extract	Awared but not used	Fully known	Now using upon availability
7	Setting of yellow sticky trap and pheromone trap	Not fully awared	Fully known	Availability of the quality material is difficult
8	Use of egg parasites <i>Trichogramma chilonis</i> for leaf folder management	Not fully awared	Fully known	Availability of the quality material is difficult

### Yield parameters in FFS demonstrated plot

Parameters	FFS demo plot	check
No of tillers/hill	22.50	20.50
Yield (q/ha)	66.50	62.25
B:C ratio	1.86	1.65
Leaf folder incidence	1.75	1.81
Stem borer incidence	1.40	1.45
Blast disease incidence	0.75	1.05

### PART VI – DEMONSTRATIONS ON CROP HYBRIDS

#### **Demonstration details on crop hybrids:**

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha) of demo			
				Demonst-ration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Bhendi	CO 4	10	2.0	259.1	219.2	18.23	78100	231358	153258	2.96

H-High L-Low, A-Average

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

## PART VII. TRAINING

### 7.A. 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		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Weed management	02	35	06	41	06	08	14	41	14	55
Resource conservation technologies	01	41	05	46	13	02	15	54	07	61
Cropping systems	01	33	04	37	05	04	09	38	08	46
Crop diversification	01	18	03	21	09	01	10	27	04	31
Integrated farming	02	25	06	31	07	02	09	32	8	40
Micro irrigation / irrigation	01	24	03	27	11	03	14	35	06	41
Seed production	02	63	15	78	24	9	33	87	24	111
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated crop management	03	115	18	133	37	17	54	152	35	187
Soil and water conservation	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	01	34	06	40	07	03	10	41	9	50
Production of organic inputs	01	27	04	31	13	04	17	40	8	48
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Nursery raising	01	23	02	25	07	-	07	30	02	32
Protective cultivation	03	38	11	39	17	05	22	45	16	61
<b>b) Fruits</b>										
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
<b>c) Ornamental Plants</b>										
Nursery management	-	-	-	-	-	-	-	-	-	-
<b>d) Plantation crops</b>										
Production and management technology	-	-	-	-	-	-	-	-	-	-
<b>e) Tuber crops</b>										
Production and management technology	-	-	-	-	-	-	-	-	-	-
<b>f) Spices</b>	01	15	4	19	3	-	3	18	04	22
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management	-	-	-	-	-	-	-	-	-	-

<b>Soil Health and Fertility Management</b>										
Soil fertility management	-	-	-	-	-	-	-	-	-	-
Integrated water management	-	-	-	-	-	-	-	-	-	-
Integrated nutrient management	01	86	4	90	29	8	37	115	12	127
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of problematic soils	01	18	05	23	7	3	10	25	8	33
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Soil and water testing	02	102	4	106	33	8	41	135	12	147
<b>Livestock Production and Management</b>										
Poultry management	-	-	-	-	-	-	-	-	-	-
Feed and fodder technology	01	31	02	33	04	-	04	35	02	37
<b>Home Science/Women empowerment</b>										
Value addition	04	58	29	87	25	23	48	83	52	135
Location specific drudgery production	-	-	-	-	-	-	-	-	-	-
<b>Agril. Engineering</b>										
Farm machinery and its maintenance	01	38	10	48	2	-	2	40	10	50
<b>Plant protection</b>										
Integrated pest management	02	48	13	51	06	01	07	54	14	68
Integrated disease management	03	69	07	76	18	03	21	87	10	97
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
<b>Fisheries</b>										
Integrated fish farming	-	-	-	-	-	-	-	-	-	-
Composite fish culture	01	42	-	46	4	-	4	46	-	46
<b>Production of Inputs at site</b>										
Seed production	02	37	4	41	15	-	15	52	4	56
Planting material production	02	28	13	41	12	8	20	40	21	61
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Mushroom production	-	-	-	-	-	-	-	-	-	-
Others	02	37	18	55	21	4	25	58	22	80
<b>Total</b>	<b>42</b>	<b>1085</b>	<b>196</b>	<b>1265</b>	<b>335</b>	<b>116</b>	<b>451</b>	<b>1410</b>	<b>312</b>	<b>1722</b>

## 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		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Weed management	03	77	14	91	28	15	43	105	29	134
Resource conservation technologies	01	34	02	36	13	01	14	47	3	50
Cropping systems	04	96	29	125	60	25	85	156	54	210
Crop diversification	02	27	12	39	10	04	14	37	16	53
Integrated farming	03	48	27	65	19	7	26	67	34	101
Micro irrigation / irrigation	04	47	13	60	15	02	17	62	15	78
Seed production	03	87	23	110	42	26	68	129	49	178
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated crop management	06	107	19	126	37	13	50	144	32	176
Soil and water conservation	-	-	-	-	-	-	-	-	-	-
Integrated nutrient management	02	26	4	30	15	3	18	41	7	48
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Off-season vegetables	02	27	37	64	8	02	10	35	39	74
Nursery raising	-	-	-	-	-	-	-	-	-	-
Protective cultivation	02	42	15	57	13	7	20	55	22	77
<b>b) Fruits</b>										
Cultivation of fruit	02	36	4	40	15	04	19	51	08	59
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-
<b>g) Spices, Medicinal and Aromatic Plants</b>										
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	02	25	14	39	16	03	19	41	17	58
Soil fertility management	03	39	13	52	17	02	19	56	15	71
Integrated water management	01	16	7	23	9	02	11	25	9	34
Integrated nutrient management	04	87	11	98	38	03	41	125	14	139
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-



Management of problematic soils	03	48	21	69	02	01	03	50	22	74
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient use efficiency	03	61	28	89	23	04	27	84	32	116
Balanced use of fertilizers	-	-	-	-	-	-	-	-	-	-
Soil and water testing	03	55	19	74	28	7	35	83	26	109
Dairy management	01	17	10	27	11	04	15	28	14	42
Poultry management	01	14	16	30	06	05	11	20	21	41
Animal nutrition management	-	-	-	-	-	-	-	-	-	-
Household food security by kitchen gardening and nutrition gardening	-	-	-	-	-	-	-	-	-	-
Value addition	03	26	31	57	04	7	11	30	38	68
Location specific drudgery production	-	-	-	-	-	-	-	-	-	-
Farm machinery and its maintenance	01	48	-	48	27	-	27	75	-	75
Installation and maintenance of micro irrigation systems	04	37	02	39	15	-	15	52	2	54
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
Post harvest technology	02	23	7	31	16	5	21	39	12	51
Integrated pest management	06	86	13	99	37	11	48	123	24	147
Integrated disease management	08	95	7	102	19	7	26	114	14	128
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
<b>Fisheries</b>										
Integrated fish farming	02	18	2	20	03	-	3	21	2	23
Planting material production	-	-	-	-	-	-	-	-	-	-
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Mushroom production	-	-	-	-	-	-	-	-	-	-
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	-	-	-	-	-	-	-	-	-	-
<b>Others</b>	02	27	5	32	13	01	14	40	06	46
<b>Total</b>	<b>83</b>	<b>1376</b>	<b>405</b>	<b>1772</b>	<b>559</b>	<b>171</b>	<b>730</b>	<b>1935</b>	<b>576</b>	<b>2514</b>

### 7.C. Training for rural youths including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery management of horticulture crops	01	15	02	17	02	01	03	17	03	20
Protected cultivation of vegetable crops	02	27	02	29	04	01	05	31	3	34
Seed production	01	28	03	30	11	02	13	39	5	44
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Planting material production	02	35	08	43	05	01	06	40	9	49
Vermi-culture	-	-	-	-	-	-	-	-	-	-
Mushroom production	02	25	18	43	10	-	10	35	18	53
Value addition	03	33	13	46	11	02	13	44	15	59
Post harvest technology	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>11</b>	<b>163</b>	<b>46</b>	<b>208</b>	<b>43</b>	<b>7</b>	<b>50</b>	<b>206</b>	<b>53</b>	<b>259</b>

### 7.D. Training for rural youths including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery management of horticulture crops	-	-	-	-	-	-	-	-	-	-
Training and pruning of orchards	01	18	01	19	05	02	07	23	03	26
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-
Integrated farming	02	15	02	17	02	01	03	17	03	20
Seed production	03	47	14	61	08	02	10	55	16	71
Planting material production	01	21	03	24	04	01	05	25	4	29
Mushroom production	01	12	04	16	05	02	07	17	06	23
Value addition	03	33	02	35	08	04	12	41	06	47
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>11</b>	<b>146</b>	<b>26</b>	<b>172</b>	<b>32</b>	<b>12</b>	<b>44</b>	<b>178</b>	<b>38</b>	<b>216</b>

**7.E. Training programmes for extension personnel including sponsored training programmes (on campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	04	119	47	165	38	16	54	157	63	220
Integrated pest management	03	77	33	110	27	12	39	104	45	149
Integrated nutrient management	02	48	08	56	11	06	17	59	14	73
Protected cultivation technology	01	27	09	36	09	02	11	36	11	47
Information networking among farmers	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>06</b>	<b>213</b>	<b>44</b>	<b>257</b>	<b>11</b>	<b>06</b>	<b>16</b>	<b>224</b>	<b>49</b>	<b>271</b>

**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		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>1</b>	<b>Crop production and management</b>										
1.a.	<b>Others (pl. specify)</b>										
	NADP- Enhancing pulses production in delta and non-delta districts	10	528	176	704	187	109	296	715	285	1000
	<b>Total</b>	<b>10</b>	<b>528</b>	<b>176</b>	<b>704</b>	<b>187</b>	<b>109</b>	<b>296</b>	<b>715</b>	<b>285</b>	<b>1000</b>

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

S. No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1.a.	Integrated crop management(IFS)	-	-	-	-	-	-	-	-	-	-
1.b.	Organic farming	-	-	-	-	-	-	-	-	-	-
2.a.	Value addition	02	26	13	39	02	16	18	28	29	57
3.a.	Vermi-composting	-	-	-	-	-	-	-	-	-	-
3.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-
3.c.	Mushroom cultivation	02	38	08	46	07	01	08	45	09	54
3.d.	Nursery, grafting etc.	-	-	-	-	-	-	-	-	-	-
	<b>Grand Total</b>	<b>04</b>	<b>64</b>	<b>21</b>	<b>85</b>	<b>09</b>	<b>17</b>	<b>26</b>	<b>73</b>	<b>38</b>	<b>111</b>

**PART VIII – EXTENSION ACTIVITIES**

**Extension programmes (including extension activities undertaken in FLD programmes)**

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field day	06	212	15	227	29	11	40	07	03	10
Kisan mela	03	906	214	1120	237	96	333	14	13	27
Exhibition	09	MASS								
Film show	02	117	15	132	43	08	51	02	01	03
Method demonstrations	18	219	18	237	76	08	84	10	09	19
Farmers seminar	-	-	-	-	-	-	-	-	-	-
Workshop	01	107	13	120	48	02	50	8	5	13
Group meetings	16	98	35	133	24	13	37	15	13	28
Lectures delivered as resource persons	27	MASS								
Newspaper coverage	23	MASS								
Radio talks	5	MASS								
TV talks	8	MASS								
Popular articles	8	MASS								
Extension literature	15	MASS								
Advisory services	489	318	13	331	147	11	158	05	02	07
Scientific visit to farmers field	98	125	08	133	16	03	19	15	06	21
Farmers visit to KVK	-	873- Excluding the major programmes held at KVK								
Diagnostic visits	78	102	03	102	13	03	16	10	8	18
Exposure visits	11	568	186	754	187	109	296	-	-	-
Celebration of important days (World soil day)	1	83	15	98	22	7	29	-	-	-
<b>Total</b>	<b>694</b>	<b>1401</b>	<b>273</b>	<b>1671</b>	<b>457</b>	<b>148</b>	<b>605</b>	<b>53</b>	<b>34</b>	<b>87</b>

**Brief report on special programmes organized / status - Pre kharif, Pre-rabi, Cluster FLD, Soil testing, Soil test kit and other programmes if any.**

***a. Pradhan Mantri Fasal Bima Jojana Programme (PMFBY) : 17.7.2016***

Pradhan Mantri Fasal Bima Jojana Programme (PMFBY) awareness programme was conducted at Krishi Vigyan Kendra, Vridhachalam, Cuddalore district on 17.07.2016 for creating awareness on crop insurance programme among the farmers of Cuddalore district. The Programme was chaired by the District Collector Smt. G. Vijaya. The programme was started with lighting of Kuthuvillakku by the honourable dignitaries. The Programme Coordinator of KVK, Dr. S. Kannan welcomed the august gathering. The Honourable Minister for Industries, Govt. of Tamil Nadu, Shri. M.C. Sampath declared opened the exhibition having crop insurance details, various agricultural technologies, varieties and farm implements displayed by the Regional Research Station and Krishi Vigyan Kendra, Vridhachalam, Vegetable Research Station, Palur, State Horticulture department, banks and other private companies. The entrepreneurs viz., value addition in vegetables, minor millets developed by the KVK, Vridhachalam displayed a wide range of value added products, seeds and ornamental nursery.

The District Collector Smt. G.Vijaya delivered special address and urged the farmers to go for insuring their crops that raised during pre and kharif seasons and the utilise the benefits of crop insurance programme. Technical bulletins on ‘Crop Insurance Programme’ and a book on “Cultivation of minor millets” were released by Shri. M.C. Sampath, the Honourable Minister for Industries, Govt. of Tamil Nadu. In his address, the Honorable Minister asked 3.14 lakh farmers of Cuddalore district to go for insurance of crops cultivated in 5.0 lakh hectares in Cuddalore district. He also insisted the farmers to go for integrated farming system so as to sustain their income by avoiding the risks during flood, drought etc.

Mr. V.T. Kalaiselvan, Member of Legislative Assembly, Vriddhachalam, Dr. R. Usha Kumari, Professor and Head i/c of Regional Research Station, Vridhachalam and Mr. P. Haridoss, Joint Director of Agriculture and Mr. P. Jeyakumar, Deputy Director of Agriculture felicitated the programme.

Technical sessions on PMFBY was conducted and lectures were given by Shri. D. Shankar, Assistant general manager, NABARD, Cuddalore, Shri. K. Jaganathan, Sr. Manager, Indian Bank, Cuddalore and Shri. M. Ramesh, Cluster Manager, ICICI bank, Vriddhachalam. Finally there was an interaction session between the bank officials, Crop insurance Advisor, Officials of Agriculture,

horticulture department, scientists and farmers where the queries of the farmers on crop insurance were answered. There were 895 farmers participated in the mega programme and got benefitted.

Dr. A. Ramesh Kumar, SMS (Horticulture) delivered the vote of thanks. The Programme ended up with National Anthem.

Name(s) of VIP and Chief Guest with designation*	No. of farmers	Name (s) of Bank. Officials	Name(s) of Govt. Officials
1. Shri. M.C. Sampath Honourable Minister for Industries, Govt. of Tamil Nadu 2. Shri. V.T. Kalaiselvan Member of Legislative Assembly Vriddhachalam constituency, Cuddalore district. 3. Shri. K. Sundararajan Union Chairman, Vriddhachalam 4. Shri. P. Arulalagan Municipality Chairman, Vriddhachalam 5. Shri. M. Veermuthu Village Panchayat President Kuppanatham 6. Shri. M. Ramadoss Village Panchayat President Pudukuraipattei	895	1. Shri. D. Shankar Asst. General Manager, NABARD, Cuddalore dt. 2. Shri. K. Jaganathan, Sr. Manager Indian Bank, (District Lead Bank), Cuddalore 3. Shri. M. Ramesh, Cluster Branch Manager, ICICI Bank, Vriddhachalam	1. Smt. G. Vijaya, District Collector, Cuddalore 2. Shri. P. Haridoss, Joint Director of Agriculture, Cuddalore district. 3. Shri. P. Jeyakumar, Deputy Director of Agriculture, Cuddalore district. 4. Shri. B.M.. Senthil Kumar, RDO, Vriddhachalam 5. Th. S. Ramachandran, Dy. Director of Agriculture (Retd.) & Advisor (Crop Insurance)

### ***b. Swachh Pakhawada programme***

Swachh Pakhawada programme was organized at Krishi Vigyan Kendra, Schools and villages with the following activities.

S.No	Name of activities related to swachhta pakhwada
1.	Taking up of Swachhta Sapath ❖ All the staff of KVK, Cuddalore assembled in front of the KVK, Campus and took the Swachhta Sapath.
2.	Cleaning of village roads at Vannankudikadu village. ❖ All the staff of KVK, Cuddalore involved in motivating the villagers on keeping their surroundings clean and involved in cleaning the village roads along with the villagers of Vannankudikadu.
3.	Awareness campaign at Govt. Primary School at Mankulam Village, Mangalore Block. ❖ Creating awareness through motivational speech. ❖ Skit by the School students on “ <b><i>Avoid plastic and save environment</i></b> ”. ❖ Cleaning of school premises
4.	Cleaning of KVK premises. ❖ The Programme Coordinator and all the staff of KVK, Cuddalore involved in cleaning of KVK premises.

5.	Demonstration of decompositions of Bio waste at Melpuliyakudi Village
6.	Awareness campaign on Swachhta Bharath at M.Agaram
7.	Awareness campaign on Swachhta Bharath at Govt.Middle School, Sathiyavadi Village. ❖ Motivational speech on Swachhta Bharath. ❖ Rally on Swachhta Bharath holding the slogans about cleanliness and save environment. The school students, Teachers and KVK Staff participated in the Rally.
8.	Demonstration of decomposition of farm waste at Ko.Mavidanthadal Village. ❖ Issue of leaf let on vermicompost production using farm waste.

*c. Pre Rabi Awareness Programme on 5.12.2016*

**1. Details of latest agricultural technologies/successful technological interventions of KVK demonstrated / exhibited/displayed:**

- Recent technologies in paddy, groundnut, pulses and vegetable production were exhibited as chart and live specimen.
- The high varieties in the crops also exhibited as chart and live specimen.
- The successful technologies of the KVK in paddy, blackgram, groundnut, vegetables like brinjal and bhendi
- Value added products in minor millets like ragi, varagu, cumbu and thenai and fruits like cashew apple, jack were also exhibited and demonstrated.
- Crop boosters for improved crop production
- IPDM practices
- Improved technologies for storage of pulses

**Following demonstration were conducted during the programme**

- Soil sampling
- Pulse Seed treatment with bio control agents and bio fertilizers
- Leaf colour chart based nitrogen fertilizers application in paddy
- IPM practices in groundnut
- Hitech nursery management
- IPDM in vegetables
- Cold storage
- Value added products in vegetables

**2. Date (s) and place(s) of activity organized:**

Date: 05.12.2016

Place: KVK, Vridhachalam, Cuddalore- 606001

3. Details of the participants (farmers and farm women, extension personnel etc. and other stakeholders) including gender wise participation

Particulars	Number of farmers participated			Number of Extension Personnel participated			Other remarks if any
	Male	Female	Total	Male	Female	Total	
Rabi campaign and soil health day	106	21	127	6	2	8	--

4. Name(s) of people's representatives at district level participated:

Name of the People Representative Participated	Designation	Other remarks if any
-	-	-

5. Name of the district level administrative heads and other officials participated

Name of the District Administrative Head Participated	Designation	Other remarks if any
Dr.M.S.Aneesa Rani	Professor and Head RRS, Vriddhachalam	
Th.P.Haridoss	Deputy Director (Agriculture)	

6. Details of activities proposed under Rabi awareness programme-2016-17

Sl.No.	Item of activity	Details of activity conducted
i	Film shows	Mechanization in agriculture IPM in paddy and vegetables Organic input production
ii	Exhibition	Exhibition on recent agricultural technologies were displayed by the KVK, Cuddalore. <b>Krishi Vigyan Kendra, Cuddalore</b> Live specimens and models of various technologies were displayed. <b>Live specimens</b> Co 8 in green gram VRI 8 in Groundnut VRI 3 cashew grafts PLR 1 jack grafts PLR 2 brinjal portray seedling Chilli protay seedling Mushroom bed for oyster mushroom <b>Models of</b> Roof gardening



		<p>Vermicompost production in silpaulin method  Integrated farming system  Mushroom production  <b>Regional Research Station, Vriddhachalam</b>  The Regional Research Station Vriddhachalm had also displayed a model with a special focus on depicting the major crops of Cuddalore District and its area. Seeds of latest varieties and charts on various crop production technologies were displayed.  <i>Live specimens of recent varieties in crops</i>  Ground nut ( VRI 8)  Cashew hybrid CWH 1  Sesame VRI 1  Sesame VRI 2  <b>Charts on</b>  Recent technologies in crop management in groundnut  Recent technologies in crop management in sesame  Pest and disease management in groundnut  Pest and disease management in sesame  High density planting in cashew</p>
iii	Shamiyana/pandals	<p>The following private companies, agro service agencies, farmer producer companies have participated in the programme.  SAFS organics, Pondicherry  Jain Irrigation Systems Private Limited, Vriddhachalam  Netafim Irrigation Limited, Vriddhachalam  Sri Murugan Traders , 47 Junction Road, Vriddhachalam  Dhanuka Agritech Private Limited, Vriddhachalam  Rasi Nursery, Pudukurapettai, Vriddhachalam</p>
iv	Media coverage	<p>Press reporters of Dinakaran, Dinamalar, Dinaboomi, Dinathanthi, Dinamani, Theekathir and mass media of Jaya TV and Puthiya thalaimurai have participated in the programme</p>
v	Video recording/photo album	<p>The event was documented in the form of video and photographs and soft copy of the document is maintained at KVK, Cuddalore.</p>
vi	Others if any (please specify)	--

**7. Details of extension materials, models and literature prepared and displayed/ provided to stakeholders**

Sl.No.	Item of activity	Details of extension materials prepared and displayed / provided to stakeholders
i	Development of posters on successful technological interventions	<p>Following posters on successful interventions viz., production technologies of pulses and vegetable crops, mushroom production, value added products from millets, pulses and vegetables and farmer producing companies were developed and displayed during the programme.</p> <ul style="list-style-type: none"> <li>• TKM 13 paddy variety for samba season</li> <li>• CO 51 paddy variety for kuruvai season</li> <li>• Pani pipe technology in paddy</li> <li>• MDU 1 cluster bean variety</li> <li>• Micro nutrient application in oil seeds.</li> <li>• Successful entrepreneurs in mushroom and value addition in minor millets and fruits.</li> </ul>
ii	Display boards	<ul style="list-style-type: none"> <li>• Integrated farming system</li> <li>• Slatted goat rearing</li> <li>• Roof gardening</li> <li>• Mushroom cultivation</li> <li>• Vermicompost production</li> <li>• Soil sample collection</li> <li>• Value product preparation in minor millets and fruits</li> </ul>
iii	Publications in the form of leaflets, pamphlets, technical bulletins etc	<p>Two books and three leaflets were published in the programme.</p> <p><b>Books:</b></p> <ul style="list-style-type: none"> <li>• Technologies in soil health and nutrient management in crops</li> <li>• Technologies in groundnut production</li> </ul> <p><b>Leaflets:</b></p> <ul style="list-style-type: none"> <li>• Management of paddy in drought and flood condition.</li> <li>• Direct sown paddy</li> <li>• Mealy bug management</li> <li>• Grafted brinjal</li> </ul>
iv	Models and live samples	<p><b>Models</b></p> <ul style="list-style-type: none"> <li>• Integrated farming system</li> <li>• Slatted goat rearing</li> <li>• Roof gardening</li> <li>• Mushroom cultivation</li> <li>• Vermicompost production in silpaulin method</li> </ul> <p><b>Live sample of recent varieties of crops</b></p> <ul style="list-style-type: none"> <li>• Co 8 in green gram</li> </ul>

		<ul style="list-style-type: none"> <li>• VRI 8 in Groundnut</li> <li>• VRI 3 cashew grafts</li> <li>• PLR 1 jack grafts</li> <li>• PLR 2 brinjal protray seedling</li> <li>• Chilli protray seedling</li> <li>• Mushroom bed for oyster mushroom</li> </ul> <p><b>Besides</b></p> <ul style="list-style-type: none"> <li>• Azolla</li> <li>• Bio control agents like <i>Trichoderma viride</i> and <i>Pseudomonas fluorescens</i></li> </ul>
v	Live crop demonstrations	<ul style="list-style-type: none"> <li>• Soil sampling</li> <li>• Pulse Seed treatment with bio control agents and bio fertilizers</li> <li>• Leaf colour chart based nitrogen fertilizers application in paddy</li> <li>• IPM practices in groundnut.</li> <li>• PLR 2 brinjal protray seedling.</li> <li>• Chilli protray seedling</li> </ul>
vi	Value added products	<p>Value added products in minor millets and fruits were displayed and explained to the participants.</p> <p><b>Value added products in minor millets</b></p> <ul style="list-style-type: none"> <li>• Biscuits in ragi, varagu and cumbu</li> </ul> <p><b>Value added products in fruits</b></p> <ul style="list-style-type: none"> <li>• Cashew apple juice</li> <li>• Papaya juice</li> <li>• Jack fruit chips</li> </ul> <p>Masala powders like idly powder, rasa powder, sambar powder, dal powder</p>
vii	Seeds and planting materials	<ul style="list-style-type: none"> <li>• Co 8 in green gram</li> <li>• VRI 8 in Groundnut</li> <li>• VRI 3 cashew grafts</li> <li>• PLR 1 jack grafts</li> <li>• PLR 2 brinjal protray seedling</li> <li>• Chilli protray seedling</li> </ul>
viii	Others if any (please specify)	81 Soil health cards were distributed to the farmers of the district.

**8. Any other valid information like supply of technological inputs to stakeholders, Farmers opinion, suggestions made and improvements planned for future programmes etc.**

***Feedback received from the farmers about the programme***

- Pest and disease management in paddy and groundnut is explained to the farmers.
- Demonstration on seed treatment in pulses and vegetable crops highlighted the importance of seed treatment

- Exhibition stalls were self explanatory and more informative on farm implements and value addition in millets, pulses, vegetables and fruits
- The technical programme on production technologies of pulses, vegetables and plant protection measures were very useful.
- Oyster Mushroom cultivation demonstration is useful

**d. Soil health day conducted on 5.12.2016**

Name of State	Name of the KVK	Type of soil analysis kit purchased (Pusa/ Mridaparishak)	Name of Dignitaries participated(MP/MLA/MLC/DC/ Dept officials)	Location/Venue	No. of Soil Health Cards distributed	No of farmer participated
Tamil Nadu	KVK, Cuddalore	Mridaparishak	Th. P. Haridoss Deputy Director of Agriculture	KVK, Vridhachalam, Cuddalore - 1	81	127

- Technical lecture on soil health management
- Demonstration on soil sampling was given
- Demonstration on use of LCC for nitrogen fertilizer application in paddy

**e. Jai Kisan Jai Vigyan Diwas Programme held on 24.12.2016.**

- Number of participants : 94

**Name of the Dignitaries / People's Representatives Participated**

- Professor and Head, Regional Research Station, Vridhachalam

**Major events organized**

- ❖ Importance and need of the celebration of Jai Kisan Jai Vigyan was highlighted.
- ❖ Exhibition on latest agriculture technologies, varieties and value added products of millets ,fruits and vegetables were arranged.
- ❖ Models on Roof gardening, slatted goat rearing, Integrated Farming System
- ❖ Activities of KVK were explained to the farmers
- ❖ Farmers scientist interaction meeting were held during Jai Kisan jai vigyan Diwas
- ❖ Issues of the farmers related to crop production technologies were addressed
- ❖ Demonstration on seed treatment with bio control agent and bio fertilizer and foliar spray of pulse wonder were done.
- ❖ Technical sessions on the following topics were given
  - Agronomic management practices for rice fallow pulses - Dr.K.Venkatalakshmi, SMS (Agronomy)
  - Nutrient management in rice fallow pulses - Mrs.G.Porkodi, SMS (SS&AC)
  - Disease management for rice fallow pulses - Dr.T.Sarvanan, SMS (Plant patho.)

- Seed production technology for Black gram - Dr.K.Natarajan, SMS (SST)
- Marketing strategies for pulses - Dr.M.Nirmala Devi, SMS (Agrl.Extn.)
- Graft brinjal-production technologies - Dr.A.Ramesh Kumar, SMS (Horti.)
- Value addition in pulses- Dr.S.Kannan, Programme Coordinator

**f. Progress Report for Cluster Frontline Demonstrations of Rabi Pulses 2016-17 under NFSM**

**A. General Information**

1	Name of the KVK	Cuddalore
2	Name of the crop	Blackgram and greengram
3	No. of FLDs (farmers) sanctioned	75
4	No. of FLDs (farmers) conducted	75
5	Area (ha) sanctioned	30
6	Area (ha) actually conducted	30
7	Sanctioned budget (Rs.)	2,25000
8	Budget received actually (Rs.)	2,25000
9	Expenditure so far (Rs.)	2,25000
10	Balance amount (Rs.)	Nil

**B. Technical Information**

1	Number of clusters	5
2	Land situation (irrigated, dry land, others specify)	Irrigated
3	Name of variety/varieties demonstrated	VBN 5 of Blackgram and Greengram CO 8
4	Name of technology / technologies demonstrated	<ul style="list-style-type: none"> <li>▪ Seed treatment with biofertilizers, bio control agents</li> <li>▪ Soil sampling</li> <li>▪ TNAU MN mixture application</li> <li>▪ IWM &amp; INM practices</li> <li>▪ Pulse wonder spray</li> <li>▪ IPDM practices: Setting of pheromone trap and yellow sticky trap and bird perches</li> </ul>
5	Sowing date/dates as per clusters	Second fortnight of October
6	Stage of the crop	Crop was harvested and documentation is in progress

**C. Information on training and extension activities conducted**

1. Training programmes

- a. Number of training programmes organized: 2
- b. Number of extension activities done: 4

**g. Progress Report for Cluster Frontline Demonstrations of Groundnut 2016-17 under NFSM**

**A. General Information**

1	Name of the KVK	Cuddalore
2	Name of the crop	Groundnut
3	No. of FLDs (farmers) sanctioned	135
4	No. of FLDs (farmers) conducted	135
5	Area (ha) sanctioned	54
6	Area (ha) actually conducted	54
7	Sanctioned budget (Rs.)	4,05,000
8	Budget received actually (Rs.)	4,05,000
9	Expenditure so far (Rs.)	4,05,000
10	Balance amount (Rs.)	Nil

**B. Technical Information**

Crop	Groundnut
Variety	GJ 7 and VRI 8
No. of demo	135 demonstration in 54 ha (Each demo 1 acre)
Season and date of sowing	Rabi - Farmers taken sowing on November first week
Area of operation	Karuppanchavadi (Kurinjipadi Block) – 100 demonstration Ayyan Kurinjipadi (Kurinjipadi Block) – 35 demonstration
Critical inputs given	Seeds of GJ 7 and VRI 8 Rhizobium, Phosphobacteria and <i>Trichoderma viride</i> Groundnut Rich
Technology demonstrated	❖ Demonstration of variety VRI 8 & G 7 ❖ Demonstration Seed drill sowing ❖ Application of groundnut rich @ 5 kg/acre ❖ Demonstration of gypsum application ❖ Demonstration of Pre emergence and post emergenc herbicide application ❖ Demonstration of IPDM practices
Present status	Crop was harvested and documentation is in progress

**C. Information on training and extension activities conducted**

1. Training programmes

- a. Number of training programmes organized: 4
- b. Number of extension activities done: 6

**PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS**

**9.A. Production of seeds by the KVKs:**

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (kg)	Value (Rs)	Number of farmers
Oilseeds	Groundnut	VRI 8	1059 kg	95310	27
	Gingelly	VRI 2	156 kg	20280	78
Pulses	Blackgram	MDU 1	117 kg	14040	17
	Greengram	CO 8	68 kg	8160	25
<b>Total</b>			1400	137790	147

**9.B. Production of planting materials by the KVKs**

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Number	Value (Rs.)	Number of farmers
Fruits	Cashew grafts	VRI 3	11114	280152	87 farmers and Supplied to the Department of Horticulture of Ariyalur and Kancheepuram district
	Jack grafts	PLR 1	10	500	5
	Jack Root stock	PLR 1	2000	20000	Supplied to the RRS, Vridhachalam
Fodder	Cumbu Napier	COCN 4	13000	6500	23
Medicinal and Aromatic	Insulin and Aloe vera	-	45	900	15
Ornamental plants	Crotons and rose	-	11	220	6
Brinjal –protray seedlings	Brinjal	PLR 2	18930	17046	158
Brinjal –protray seedlings	Brinjal	Parul	7908	7908	137
Chillies – Protray seedling	Chillies	US 243	9950	9452	96
Teak seedlings	Teak	-	614	6140	48
<b>Total</b>			<b>63582</b>	<b>348818</b>	<b>575</b>

**9.C. Production of Bio-Products**

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	Number of farmers
		kg		
<i>Pseudomonas fluorescens</i>	<i>Pseudomonas fluorescens</i>	104.5	10450	80
<i>Trichoderma viride</i>	<i>Trichoderma viride</i>	177	17700	123
<b>Total</b>		<b>281.5</b>	<b>28150</b>	<b>203</b>

**9.D. Production of livestock materials :**

Live stock	Name of the live stock	Quantity	Value (Rs.)	Number of farmers
		kg		
Goat	Goat	78.4	19600	3
Poultry	Poultry	12.3	2460	4
<b>Total</b>		<b>90.7</b>	<b>22060</b>	<b>7</b>

**9.E. Production of Mushroom :****PART X – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND DROUGHT MITIGATION****10. A. Literature Developed/Published (with full title, author & reference)**

1. Newsletter : 4 issues (Quarterly)

S. No	Publications	Title
1.	Books	-
2.	Booklets	<ol style="list-style-type: none"> <li>1. Porkodi. G, A. Ramesh Kumar, T. Saravanan, K. Natarajan, M. Nirmaladevi, K. Venkatalakshmi, T. Kumar, K. Meenalakshmi, R. Samundeeswaran, S. Kannan and M.S. Aneesa Rani. 2016. Pulses production technology (Tamil). Published by Programme Co-ordinator, KVK, Vriddhachalam, Cuddalore</li> <li>2. Ramesh Kumar. A., S. Kannan, , K. Natarajan, T. Saravanan, M. Nirmala Devi, K. Venkatalakshmi, G.Porkodi, D. Kumar, G. Meenalakshmi, R. Samundeeswaran and M. S. Aneesa Rani. 2016. Banana cultivation (Tamil). Published by KVK, Vriddhachalam.</li> <li>3. Kannan. S., A. Ramesh Kumar, K. Natarajan, M. Nirmaladevi, T. Saravanan, K. Venkatalakshmi, G. Porkodi, G.Meenalakshmi, R. Samundeeswaran, T. Kumar and M.S. Aneesa Rani. 2016. Processing of vegetables, fruits and minor millets (Tamil), published by KVK, Vriddhachalam.</li> <li>4. Natarajan. K., M. Nirmaladevi, T. Saravanan, G. Porkodi, A. RameshKumar, K. Venkatalakshmi, G. Meenalakshmi, R. Samundeeswaran, T. Kumar, S. Kannan, and M.S. Aneesa Rani. 2016. Seed production in green manure crops (Tamil), published by KVK, Vriddhachalam.</li> <li>5. Porkodi. G., T. Saravanan, M. Nirmaladevi, K. Venkatalakshmi, A. RameshKumar, K. Natarajan, G. Meenalakshmi, R. Samundeeswaran, T. Kumar, S. Kannan,and M.S. Aneesa Rani. 2016. Soil health management and nutrient management for crops (Tamil), published by KVK, Vriddhachalam.</li> <li>6. Venkatalakshmi. K., G. Porkodi, K. Natarajan, T. Saravanan, M. Nirmaladevi, A. RameshKumar, G. Meenalakshmi, R. Samundeeswaran, T. Kumar, S. Kannan,and M.S. Aneesa Rani. 2016. Improved package of practices for groundnut and value addition in groundnut. (Tamil), published by KVK, Vriddhachalam.</li> <li>7. Ramesh Kumar. A., M. Nirmaladevi, G. Porkodi, T. Saravanan, K. Venkatalakshmi, K. Natarajan, T. Kumar, G.Meenalakshmi, R. Samundeeswaran, S. Kannan and M.S. Aneesa Rani. 2016. Roof garden (Tamil), published by KVK, Vriddhachalam</li> </ol>



		<p>8. Porkodi, G., T. Saravanan, M. Nirmaladevi, K. Natarajan, A. RameshKumar, K. Venkatalakshmi, T. Kumar G. Meenalakshmi, R. Samundeeswaran, S. Kannan, and M.S. Aneesa Rani. 2017. Management of nutrients deficiency in crop (Tamil), published by KVK, Vriddhachalam.</p> <p>9. Nirmaladevi, M., G. Porkodi, T. Saravanan, K. Natarajan, A. RameshKumar, K. Venkatalakshmi, T. Kumar G. Meenalakshmi, R. Samundeeswaran, S. Kannan, and M.S. Aneesa Rani. 2017. Fodder production (Tamil), published by KVK, Vriddhachalam.</p> <p>10. Saravanan, T., M. Nirmaladevi, G. Porkodi, K. Venkatalakshmi, A. RameshKumar, K. Natarajan, G. Meenalakshmi, R. Samundeeswaran, T. Kumar S. Kannan, and M.S. Aneesa Rani. 2017. Mushroom cultivation techniques (Tamil), published by KVK, Vriddhachalam.</p> <p>11. Saravanan, T., M. Nirmaladevi, G. Porkodi, K. Venkatalakshmi, A. RameshKumar, K. Natarajan, G. Meenalakshmi, R. Samundeeswaran, T. Kumar S. Kannan, and M.S. Aneesa Rani. 2017. Management of paddy cultivation by organic method (Tamil), published by KVK, Vriddhachalam.</p> <p>12. Ramesh Kumar, A., Porkodi, G., T. Saravanan, K. Natarajan, M. Nirmaladevi, K. Venkatalakshmi, S. Kannan, and M.S. Aneesa Rani. 2017. Improved pulse production technology in delta area (Tamil), published by KVK, Vriddhachalam.</p> <p>13. Ramesh Kumar. A., M. Nirmaladevi, G. Porkodi, T. Saravanan, K. Venkatalakshmi, K. Natarajan, T. Kumar, G. Meenalakshmi, R. Samundeeswaran, S. Kannan and M.S. Aneesa Rani. 2016. Roof garden (Tamil), published by KVK, Vriddhachalam</p>
3.	Research articles	<ul style="list-style-type: none"> <li>• ம. நிர்மலாதேவி, த. சரவணன், திருமதி.கு.பொற்கொடி, சு. கண்ணன் மற்றும் முனைவர். மு.சை. அனீசாராணி. 2016. கடலூர் மாவட்டத்திற்கேற்ற உளுந்து-எம்டிடி 1 (MDU1) இரகத்தினை மதிப்பீடு செய்தல்.</li> <li>• கு. பொற்கொடி, த. சரவணன், ம. நிர்மலாதேவி, சு. கண்ணன் மற்றும் எம். எஸ். அனீசா ராணி. 2016. கடலூர் மாவட்டத்தில் மதுரை 6 (MDU 6) நெல் இரகத்தைக் குறுவைப் பருவத்தில் மதிப்பீடு செய்தல். பக்கம் 309 – 310 அறிவியல் தமிழில் வேளாண்மை உ. – தேசிய கருத்தரங்கு. நாள் 05.05.16 – 06.05.16. (ISBN : 81-902877-3-7)</li> <li>• Ramesh Kumar, A., T. Saravanan, K. Natarajan, S. Kannan and M.S. Aneesa Rani. 2016. Integrated Crop Management (ICM) for watermelon (Tamil). In: IInd Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp: 4-8.</li> <li>• Ashok A.D., A. Ramesh Kumar, V.Dhivyabharathi, P. Shrinivi, P.Vinotha, M. Santhakumari, U.Indumathi, G.Kalaiyarasi, N.Savithiri, K.Venkatesan and M. Jawaharlal. 2016. Studies on ripening behavior of Grand Naine banana (Tamil). In: IInd Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp: 436-442.</li> <li>• Kannan S., A. Ramesh Kumar, T. Saravanan and M.S. Aneesa Rani. 2016. Identification of suitable variety in cashew for value addition. (Tamil). In: IInd Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp: 952-955.</li> </ul>

		<ul style="list-style-type: none"> <li>• Santhi V.P., A. Ramesh Kumar, H. Vijayaraghavan and M. Jawaharlal. 2016. Collection and evaluation of guava germplasm for yield, quality and physiological properties under saline-sodic condition. In: National conference on “Fruit breeding in tropics and subtropics- An Indian perspective” held at IIHR, Bengaluru during 27-29, April, 2016 and organized by IIHR, Bengaluru.</li> <li>• Ramesh Kumar, T. Saravanan, S. Kannan and M.S. Aneesa Rani. 2017. Demonstration Of Bunch Nutrition In Banana. In: 2<sup>nd</sup> KVK symposium on “Frontline Extension Programmes for realizing higher productivity and profitability in farming” held at TNAU, Coimbatore during 07-08.03.2017.</li> <li>• Venkatalakshmi K.,S.Avudathai and P.Puvilla. 2016. Effect of integrated agronomic management practices on physiological,nutrient uptake and yield of red gram. (Tamil). In: II<sup>nd</sup> Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp: 118-121</li> <li>• Puvilla P., L.R.Latha and K.Venkatalakshmi. Soil nutrient status of red gram + green gram intercropping system. (Tamil). In: II<sup>nd</sup> Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp:630-631</li> <li>• பொற்கொடி. கு, ம. நிர்மலாதேவி, த. சரவணன், சு. கண்ணன் மற்றும் எம்.எஸ்.அனீசா ராணி. 2016. மக்காசோளத்தில் ஊட்டமேற்றப்பட்ட உர விதை குப்பியை மதிப்பீடு செய்தல். 2 வது தேசிய கருத்தரங்கு- தமிழால் இயலும் - வேளாண்மை, கால்நடையியல், நாள் 05.08.16 – 06.08.16.</li> <li>• நிர்மலாதேவி ம., த. சரவணன், கு. பொற்கொடி, சு. கண்ணன் மற்றும் மு.சை. அனீசாராணி. 2016. கடலூர் மாவட்டத்திற்கேற்ற உளுந்து-எம்டிய[ 1 (MDU1) இரகத்தினை மதிப்பீடு செய்தல். 2 வது தேசிய கருத்தரங்கு- தமிழால் இயலும் - வேளாண்மை, கால்நடையியல், நாள் 05.08.16 – 06.08.16.</li> <li>• Porkodi, G., T. Saravanan, M. Nirmaladevi. 2017. Nutri seed pack technology in maize COH (M) 6. National symposium “Applications of Radioisotopes and Tracer Techniques in Agriculture and Environment” on 16-17 February 2017 at Dept. of Soil Science &amp; Agrl. Chemistry, TNAU, Coimbatore. p: 147. ISBN: 978-93-80769-83-7</li> <li>• Nirmala Devi, M. T Saravanan, G Porkodi, S Kannan and M S Aneesa Rani. 2017. Performance of MDU 1 blackgram variety in Cuddalore district. Second KVK Symposium on Frontline extension programmes for realizing higher productivity and profitability in farming held at TNAU, Coimbatore from 07.03.17 to 08.03.17.P.No. 46. ISBN: 978938379-7</li> <li>• Saravanan, T. G Porkodi, M Nirmala Devi, S Kannan and M S Aneesa Rani. 2017. Integrated Pest Management practices in brinjal. Second KVK Symposium on Frontline extension programmes for realizing higher productivity and profitability in farming held at TNAU, Coimbatore from 07.03.17 to 08.03.17. P.No. 100-101. ISBN: 978938379-7</li> </ul>
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4.	Folders/Pamphlets	<ul style="list-style-type: none"> <li>• Ramesh Kumar A., S. Kannan and M.S. Aneesa Rani. 2016. Cultivation of grafted brinjal (Tamil), published by KVK, Vriddhachalam.</li> <li>• Production of biocontrol agents (Tamil). 2016. Published by KVK, Vriddhachalam.</li> <li>• Blackgram seed production techniques (Tamil). 2016. Published by KVK, Vriddhachalam.</li> <li>• Slatted goat rearing unit (Tamil). 2016. Published by KVK, Vriddhachalam.</li> <li>• Drought and flood management practices in paddy. (Tamil). 2016. Published by KVK, Vriddhachalam.</li> </ul>
5.	Popular articles & New Paper	<ol style="list-style-type: none"> <li>1. தமிழ்மணி, ச. வே. பிரியா, ச. கீர்த்திகா, ச. கண்ணன் மற்றும் ம. நிர்மலாதேவி சிறுதானியங்களில் சிறந்து விளங்கும் கம்பு. பச்சையுமி. டிசம்பர். 2015. ப. எண் 16-17.</li> <li>2. கண்ணன். ச, ம. நிர்மலாதேவி மற்றும் ச. தமிழ்மணி. மருத்துவப் பயன்பாடு உள்ள கம்பு உணவு. உழவரின் வளரும் வேளாண்மை. நவம்பர் 2015. ப. எண் 45-48.</li> <li>3. நிர்மலாதேவி ம., ச. கண்ணன் மற்றும் முனைவர். மு.சை. அனீசாராணி. 2016. மதிப்புக்கூட்டப்பட்ட பொருட்கள் தயாரிப்பு. சிறந்த பெண் தொழில் முனைவோரின் அனுபவம். உழவரின் வளரும் வேளாண்மை. செப்டம்பர் 2016. ப. எண் 42-44.</li> <li>4. Aneesa Rani M.S., D. Keiser Lourdusamy and A. Ramesh Kumar. 2016. Vetiver- A God's gift for flood and drought prone area (Tamil). Ulavarin Valarum Velanmai. Pp; 32-35.</li> <li>5. Aneesa rani M.S., D. Keisar Lourdusamy and A. Ramesh Kumar. 2016. Pruning and foliar spray of nutrients to get higher yields in cashew. Velan Vanika Ulagam, September, 2016, pp: 60-61.</li> <li>6. Porkodi, G., M. Nirmaladevi, T. Saravanan, S. Kannan and M.S. Aneesa Rani. 2017. “மண் வளம் - நிலையான வேளாண்மையின் அடித்தளம்”. Pp: 51-55. Farm fest – 2017. XXXI flower, vegetable and fruit show Souvenir, Puducherry on 27<sup>th</sup> -29<sup>th</sup> January, 2017.</li> <li>7. Kannan. S., M. Nirmaladevi, T. Saravanan, G. Porkodi and M.S. Aneesa Rani. 2017. “சாமையில் மதிப்புக் கூட்டப்பட்ட பேக்கரி உணவு வகைகள்” Pp: 79-83. Farm fest – 2017. XXXI flower, vegetable and fruit show Souvenir, Puducherry on 27<sup>th</sup> -29<sup>th</sup> January, 2017.</li> <li>8. Saravanan, T., M. Nirmaladevi, G. Porkodi, S. Kannan and M.S. Aneesa Rani. 2017. “உணவுக் காளான் மகத்துவம் மற்றும் பயன்கள்”. Pp: 84-86. Farm fest – 2017.</li> </ol>

#### 10.B. Details of Electronic Media Produced

Item	Title	Authors name	Number
CD	Protection of plant varieties and Farmers right act.	KVK,Vridhachalam	100
CD/DVD	KVK activities and achievements	KVK,Vridhachalam	-

**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).**

This KVK has developed six successful entrepreneurs on ground nut cultivation / IFS / Seed production/ food processing/ mushroom growing. Brief outlines of their success story are presented here under.

**Success story of farmer: Record yield in ground nut under Cluster FLD on Oilseeds**

**Name and address of farmer:**

Thiru.V.K. Kumaraguru  
S/o. Kaliyaperumal  
Karuppanchavadi Village  
Krishnankuppam Post  
Kurinjipadi Block & Taluk  
Pin 607301  
Cuddalore District  
Mobile No : 9942187135

**About the farmer**

- ❖ Thiru.V.K. Kumaraguru from Karuppanchavadi Village, Kurinjipadi block, is having twenty five years of experience in agriculture
- ❖ Training given at KVK Cuddalore on production technology of oilseeds and pulses was an eye-opener for him during 2007
- ❖ Adoption of technologies of TNAU, Mr. V.K. Kumaraguru recorded an yield of 16.5 t/ha (wet pod) of Asha groundnut during 2015 and has been appreciated at National level for higher productivity.
- ❖ He started KVK Ratna Velanmai Sevai Centre for Machineries on custom hiring basis to his fellow farmers.
- ❖ During 2015, he was awarded for usage of machineries for groundnut by the higher number of farmers by Tamil Nadu Agricultural University
- ❖ The farmer has been appreciated for his contribution to agriculture in different platforms and he was recognized by State & District Level sponsored programme entitled 'Increasing the productivity in groundnut' in 2015
- ❖ From 2015 onwards Mr. Kumaraguru expertise has been utilized by the KVK, Cuddalore for the benefit of other farmers

**Technology demonstrated**

- i. Crop and variety : Groundnut var. GJG9
- ii. Details of technology demonstrated:
  - ❖ Seed treatment with biofertilizers (*Rhizobium* and *Phosphobacteria*)
  - ❖ Seed treatment with *Trichoderma viridi*
  - ❖ Demonstration of seed drill sowing

- ❖ Demonstration of Groundnut rich application
- ❖ Gypsum application
- ❖ Post emergence herbicide application

**Performance of technology of individual farmer vis-à-vis local check (increase in productivity and returns)**

Farmer's Existing plot (Check - VRI 2)					Demonstration plot (GJG9)				
Yield (q/ha)	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio	Yield (q/ha)	Gross Cost (Rs/ha)	Gross return (Rs/ha)	Net Return (Rs/ha)	B:C ratio
24.50	54127	147000	92873	2.72	57.80	86825	346800	259975	3.99

**Performance of technology of cluster farmer vis-à-vis local check (increase in productivity and returns)**

Sl. No.	Crop demonstrated	Existing (Farmer's) variety name	Existing yield (q/ha)	Yield gap (kg/ha) w.r.to			Number of farmers	Area in ha	Yield obtained (q/ha)		
				District yield (D)	State yield (S)	Potential yield (P)			Max.	Min.	Av.



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**Bio data of successful farmer – Wet land Integrated farming System (IFS)**

S.No	Particulars	
1.	Name	Th. R.Palanivel
2.	Address	S/o Rangasamy Alichikudi village Vriddhachalam Taluk Cuddalore dt.
3.	Age	62
4.	Educational qualification	10 <sup>th</sup> Standard
5.	Enterprise	<b>Successful IFS farmer</b>
6.	Activities	<ul style="list-style-type: none"> <li>• He is basically from a farming family and is having 30 years of farming experience. He is always interested in learning innovations and impel meting the same in his land holdings. In, 2013, he approached KVK, Vriddhachalam for any kind of new innovative technologies to be adopted in his farm. He was trained on wetland system of IFS and was provided with one such demo model.</li> <li>• He established a fish pond in 25 cents and grows 750 composite fingerlings of Catla, Mrigal, Rogu, Common carb, grass carb, silver carb. He adds rice bran, ground nut cake and azolla as feed for the fish fingerlings. He adds cowdung slurry once in a week which serves as feed for floaters. The fish become ready for harvesting in about 8- 10 months.</li> <li>• Over the fish pond, he erected a cage for rearing of poultry birds (layers). He rears 25 birds in a cycle. The excreta of poultry which is getting dropped on the fish pond, becomes feed for growing fishes.</li> </ul>
7.	Profit	He is earning approximately Rs. 30000/- per annum form fishes and Rs. 15,000/- per annum from seeling of eggs.
8.	Unit size	25 cents
9.	Present working condition of the enterprise	<ul style="list-style-type: none"> <li>• The KVK, Vriddhachalam is also involved in giving technical backstop improvement by training in IFS.</li> </ul>
10.	Horizontal spread of enterprise	<ul style="list-style-type: none"> <li>• He is involved in producing vegetable seeds</li> </ul>
11.	Other activities	<ul style="list-style-type: none"> <li>• Serving as a role model for other farmers to become progressive, innovative farmer.</li> <li>• Participating in the Uzhavar peruvizha, farmers day and sharing his experience.</li> <li>• His achievements are published in popular dailies.</li> <li>• His success is documented and telecasted by Makkal TV and pothigai TV.</li> </ul>

## Activities of the farmer



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**Bio data of successful farmer - Seed Producer (Shivashakthi Seeds)**



S.No	Particulars	
1.	Name	Th. A. Ramesh
2.	Address	S/o Adivaragan pillai Main road, Gunamangalam & Post, Srimushnam 608703
3.	Age	44
4.	Educational qualification	Degree
5.	Enterprise	<b>SEED PRODUCER (SHIVASHAKTHI SEEDS)</b>
6.	Activities	<ul style="list-style-type: none"> <li>• Before 2007 he was an ordinary farmer cultivating paddy in his own land and surviving with average minimum income which was sufficient to meet out his family daily needs.</li> <li>• Now he is running seed production unit successfully with the capacity of 55t of ADT 43, 90t of CR1009, 15t of ADT38 35 t of BPT 5204, 7t of ADT 39 and 3t of IW Ponni as his contribution to the farmers of Cuddalore District</li> <li>• Improved seed production technologies viz., such as land selection, sources of seed, isolation distance, rouging, foliar nutrition, harvesting and post harvest handling of seeds in three stages under seed village training programme</li> <li>• The seed production is a successful venture for farmers as it gives remuneration income to the farmer.</li> <li>• The need for good quality seed material is growing day by day and hence there is a great scope for a profitable agribusiness in seed venture</li> </ul>
7.	Profit	<ul style="list-style-type: none"> <li>• He is earning approximately Rs. 3 lakhs /annum and generating employment of 192 man days per year.</li> </ul>
8.	Achievement	<ul style="list-style-type: none"> <li>• Received the “Best Farmer encouraging other farmers” by TNAU, Coimbatore in 2015.</li> </ul>
9.	Publicity and Marketing	<ul style="list-style-type: none"> <li>• He is selling his produce in cuddalore, thanjavur and Ariyalur districts.</li> <li>• This Kendra was involved in promotion of marketing their produce by allowing them to display and sell their produces in Agri-horti fairs, TNAU sponsored exhibitions, CODISSIA Agri-Expo, Pondicherry Agri Fair etc., through stall exhibition cum selling.</li> <li>• Direct marketing and indirect marketing through shops.</li> </ul>
10.	Present working condition of the enterprise	<ul style="list-style-type: none"> <li>• The KVK, Vriddhachalam is also involved in giving technical backstop improvement by training in seed production aspects.</li> </ul>
11.	Horizontal spread of enterprise	<ul style="list-style-type: none"> <li>• He is involved in producing vegetable seeds</li> </ul>
12.	Other activities	<ul style="list-style-type: none"> <li>• Serving as a role model for other farmers to become an entrepreneur.</li> <li>• Participating in the Uzhavar peruvizha, farmers day and sharing her successful entrepreneur</li> <li>• His achievements are published in popular dailies.</li> <li>• His success is documented and telecasted by Makkal TV and pothigai TV.</li> </ul>



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**Bio data of successful farmer - Seed Producer (Raja Seeds)**



S.No	Particulars	
1	Name	Th. T. Subramaniam
2	Address	S/o Thirugnanasambantham North street, Rajendrapattinam-608703 Vridhachalam Taluk Cuddalore Dt Mobile: 9787581169
3	Age	57
4	Educational qualification	Degree
5	Enterprise	<b>SEED PRODUCER (RAJA SEEDS)</b>
6	Activities	<ul style="list-style-type: none"> <li>• Before the Training programme the farmer purchased the seeds from private seed companies, government outlets and also used their own farm saved seeds.</li> <li>• After the training undergone by the farmer he himself produced the quality seeds and supplying it to the farmers in and around Cuddalore district and now he become an entrepreneur.</li> <li>• The profit achieved of this entrepreneur showed that the seed production is a profitable agribusiness venture and the scope is enlarging day by day as there is growing demand for quality seed material in the agricultural industry.</li> </ul>
7	Profit	<ul style="list-style-type: none"> <li>• He is earning approximately Rs. 2 lakhs /annum and generating employment of 145 man days per year.</li> </ul>
8	Achievement	<ul style="list-style-type: none"> <li>• He is interested in producing seeds in latest released variety</li> </ul>
9	Publicity and Marketing	<ul style="list-style-type: none"> <li>• He is selling his produce in cuddalore, thanjavur and Ariyalur districts.</li> <li>• This Kendra was involved in promotion of marketing their produce by allowing them to display and sell their produces in Agri-horti fairs, TNAU sponsored exhibitions, CODISSIA Agri-Expo, Pondicherry Agri Fair etc., through stall exhibition cum selling.</li> <li>• Direct marketing and indirect marketing through shops.</li> </ul>
10	Present working condition of the enterprise	<ul style="list-style-type: none"> <li>• He is producing 12 ha of paddy seeds and 12 ha of blackgram seeds and supplying the same to the farmers and to the department of agriculture.</li> </ul>
11	Horizontal spread of enterprise	<ul style="list-style-type: none"> <li>• He is involved in producing latest varieties seeds.</li> </ul>
12	Other activities	<ul style="list-style-type: none"> <li>• Serving as a role model for other farmers to become an entrepreneur.</li> <li>• Participating in the Uzhavar peruvizha, farmers day and sharing her successful entrepreneur</li> <li>• His achievements are published in popular dailies.</li> <li>• His success is documented and telecasted by Makkal TV and pothigai TV.</li> </ul>

**TAMIL ANDU AGRICULTURAL UNIVERSITY  
KRISHI VIGYAN KENDRA, VRIDHACHALAM- 606 001  
CUDDALORE DISTRICT**



**Bio data of successful farmer - Value added product preparation**

S.No	Particulars	
1	Name	R.Jothi
2	Address	W/O. Rajangam Tamil Nagar, Manalur Vriddhachalam-606001 Cuddalore dist. Cell: 9500330406
3	Age	52
4	Educational qualification	Degree
5	Enterprise	<b>Value added product preparation</b>
6	Activities	<ul style="list-style-type: none"> <li>• Tmt. R.Jothi approached KVK, Vriddhachalam and requested training on value added product preparation in fruits, vegetables, pulses, cereals and millets.</li> <li>• She had attended training on value addition in millets, vegetables conducted by the KVK, Vriddhachalam during 2014.</li> <li>• She started a unit on value addition production in their home in small scale.</li> <li>• She started a small unit with daily preparation of pickles, and earned Rs.1500/month.</li> <li>• After KVK intervention and fine tuned her business, she started preparation of pickles and masala powder with a capacity of 75 kg each per month. Now, she is selling her products in the brand name <b>“V.C.R. Home Made Products”</b> and <b>earns Rs. 10,500/month</b>. She is now doing the business successfully.</li> </ul>
7	Profit	Rs 10,500/month
8	Achievement	-
9	Publicity and Marketing	<ul style="list-style-type: none"> <li>• Value added products produced by the entrepreneur are sold in various places of Cuddalore district. .</li> <li>• This Kendra was involved in promotion of marketing their produce by allowing them to display and sell their produces in Agri-horti fairs, TNAU sponsored exhibitions, CODISSIA Agri-Expo, Pondicherry Agri Fair etc., through stall exhibition cum selling.</li> <li>• Direct and indirect marketing through shops.</li> </ul>
10	Present working condition of the enterprise and Horizontal spread of enterprise	Now, she has plans to expand the business and looking for financial assistance from various sources.
11	Other activities	<ul style="list-style-type: none"> <li>• Providing training on value addition to other women groups and self help groups and motivating them to become entrepreneurs.</li> <li>• Serving as a role model for other farmers and farm women to become an entrepreneur</li> <li>• Participating in the Uzhavar peruvizha, farmers day and sharing her successful entrepreneur</li> <li>• Her achievements are published in popular dailies.</li> </ul>

**TAMIL ANDU AGRICULTURAL UNIVERSITY  
KRISHI VIGYAN KENDRA, VRIDHACHALAM- 606 001  
CUDDALORE DISTRICT**  
**Bio data of successful farmer - Value added products from millets**



S.No	Particulars	
1.	Name	Tmt. S. Meenakshi
2.	Address	C.23. Kundamkulam Street Block 11, Neyveli- 3 Cuddalore District
3.	Age	48
4.	Educational qualification	Higher Secondary
5.	Enterprise	Value added products from millets
6.	Activities	<ul style="list-style-type: none"> <li>• Tmt. S. Meenakshi had an intension of becoming an entrepreneur. She is much interested in preparing value added products from millets as they are fetching good market demand.</li> <li>• She had attended a training programme on “Value addition in millets” and also value addition in fruits at KVK, Vridhachalam. Further, she had joined in an exposure visit organized by the KVK and exposed to millets processing technologies.</li> <li>• She gathered the people attended the millet processing training and formed a Sangam called “Value added products producers snagam of Cuddalore District.” Through this sangam she is producing value added products from samai, varagu, thinai and Ragi.</li> <li>• The products include rice, puttu flour, health mix and biscuits in the brand of “<b>Aero foods</b>”. Further, value added products from fruits and vegetables (instant food powder, jam, jelly pickle preparation, vathal and vadagam preparation etc.,) also prepared and marketed by her. The products are marketed in Cuddalore district and the near by metro city Chennai.</li> </ul>
7.	Profit	Rs. 20,000- 25,000 /month
8.	Achievement	<ul style="list-style-type: none"> <li>• Received the “Best stall Award” for the Entrepreneurs during the Farmers day , 2016 at TNAU, Coimbatore.</li> </ul>
9.	Publicity and Marketing	<ul style="list-style-type: none"> <li>• Products produced by the entrepreneur are sold in Cuddalore, Villupuram, Perambalur and Tanjavur districts.</li> <li>• This Kendra was involved in promotion of marketing their produce by allowing them to display and sell their produces in Agri-horti fairs, TNAU sponsored exhibitions, CODISSIA Agri-Expo, Pondicherry Agri Fair etc., through stall exhibition cum selling.</li> <li>• Direct marketing and indirect marketing through shops.</li> </ul>
10.	Present working condition of the enterprise	<ul style="list-style-type: none"> <li>• The KVK, Vriddhachalam is also involved in giving technical backstop improvement by exposing them to higher end learning training IICPT at Thanjavur and fish value addition training by CIFT, Cochin experts was also given to them at this Kendra.</li> <li>• Now he started producing prawn and fish pickles and vathals.</li> </ul>
11.	Horizontal spread of enterprise	<ul style="list-style-type: none"> <li>• She also developed a similar enterprise unit in Mangalampettai Village.</li> </ul>
12.	Licence, advertisements etc on product	<ul style="list-style-type: none"> <li>• Reg. No: 33/18/4616/SI/09-10 for Food Products</li> <li>• Reg.No: 53/07/SI 86/13/4645 for value added products of millets</li> </ul>

13.	Other activities	<ul style="list-style-type: none"> <li>• Providing training on value addition to other women groups and self help groups and motivating them to become entrepreneurs.</li> <li>• Serving as a role model for other farmers and farm women to become an entrepreneur</li> <li>• Participating in the Uzhavar peruvizha, farmers day and sharing her successful entrepreneur</li> <li>• Her achievements are published in popular dailies.</li> <li>• Her success is documented and telecasted by Makkal TV and pothigai TV.</li> </ul>
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**Product displayed at exhibition**



**Product preparation**



**Best stall award received for display in Farmers day function held on Jan, 2016**

**TAMIL ANDU AGRICULTURAL UNIVERSITY  
KRISHI VIGYAN KENDRA, VRIDHACHALAM- 606 001  
CUDDALORE DISTRICT**



**Bio data of successful farmer - Mushroom cultivation**

S.No	Particulars	
1.	Name	Mrs. M.F. Fousiya Begam
2.	Address	<b>Sister Rajiya Memorial Self Help Group</b> Aliyar Nagar Mangalampettai Vridhachalam- 606001 Cuddalore District Mobile: 94432 85405
3.	Age	29
4.	Educational qualification	10 <sup>th</sup> standard
5.	Enterprise	Mushroom cultivation
6.	Activities	<ul style="list-style-type: none"> <li>• Mrs. M.F. Fousiya Begam W/o Mohammad Faruk Jinna from Managalampettai is studied 10<sup>th</sup> standard and came to KVK, Vridhachalam in order to earn for her family.</li> <li>• The KVK, Vridhachalam given a vocational training programme on mushroom cultivation during the month of Oct, 2014. She attended in the training and got training experience in mushroom cultivation and value addition.</li> <li>• After the training, she started a self help group on Sister Rajiya Memorial Self Help Group by organizing 15 women for establishing mushroom cultivation unit.</li> <li>• They started mushroom cultivation unit at 25 x 15 feet size at mangalampettai and scientists of the KVK visited the unit and given suggestions for improvement of the unit in a business mode.</li> </ul>
7.	Profit	<ul style="list-style-type: none"> <li>• They produced 20 kg oyster mushroom and 18 kg of milky mushroom daily from the unit.</li> <li>• They earned Rs. 14000 /month as net income.</li> </ul>
8.	Achievement	<ul style="list-style-type: none"> <li>• Received the “Best Young Entrepreneur award for the year 2016 from Tamil Nadu Agricultural University, Coimbatore</li> </ul>
9.	Publicity and Marketing	<ul style="list-style-type: none"> <li>• Mushroom produced from the unit are being sold in the market of Ulundurpettai, Mangalampettai and Vridhachalam.</li> <li>• This Kendra was involved in promotion of marketing their produce by allowing them to display and sell their produces in Agri-horti fairs, TNAU sponsored exhibitions, CODISSIA Agri-Expo, Pondicherry Agri Fair etc., through stall exhibition cum selling.</li> <li>• Direct marketing and indirect marketing through shops.</li> </ul>
10.	Present working condition of the enterprise	<ul style="list-style-type: none"> <li>• The KVK, Vridhachalam is also involved in giving technical backstop improvement by exposing them to higher end learning training IICPT at Thanjavur for value addition in mushroom products.</li> <li>• Now she started new milky mushroom production unit of 30 x18 feet size.</li> </ul>

11.	Horizontal spread of enterprise	<ul style="list-style-type: none"> <li>• They are giving training and guidance to the woman's in that area for starting a new unit.</li> </ul>
12.	Other activities	<ul style="list-style-type: none"> <li>• Providing training on mushroom to other women groups and self help groups and motivating them to become entrepreneurs.</li> <li>• Serving as a role model for other farmers and farm women to become an entrepreneur</li> <li>• Participating in the Uzhavar peruvizha, farmers day and sharing her successful entrepreneur</li> <li>• Her achievements are published in popular dailies.</li> <li>• Her success is documented and telecasted by pothigai TV.</li> </ul>



**Milky mushroom shed**



**Mushroom shed**



**Receiving the “Best Young Entrepreneur award for the year 2016 from Tamil Nadu Agricultural University, Coimbatore**



**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)**

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Paddy	<i>Vasambu (Acotus calamus)</i> powder and cow urine are mixed in the water that has been boiled and cooled over night and the seeds are soaked in the solution. The floating seeds are removed. The remaining seeds are used for sowing.	This serves the dual purpose of seed selection and treatment of seed borne disease
2		The place with higher elevation in the field is selected for raising paddy nursery	Water flooding is avoided
3	All crops	Ash is dusted on the germinated paddy nursery before the occurrence of heavy rain.	This practice prevents toppling of seedlings and also accumulation of seedlings on one side
4		Farm waste and trash are burnt on the nursery beds. The heat that is generated by burning, sterilizes the soil and some nutrients like potash is added	For effective nutrient management
5		A mixture of coconut water and buttermilk is used to increase the number of flowers in paddy. A mixture of 5 liters of coconut water and 5 liters of buttermilk is kept in a mud pot. This pot is buried in the soil for 5-7 days, after that one liter of solution is mixed with 10 liters water to spray on the crop.	For increase number of flowers in the crop.
6		Nochi leafs along with stored paddy grain. News paper clippings and herbal leaf mixture.	To repel stored product pests
7	Pulses	Use of neem oil / red earth	To repel stored product pests in Pulses
8		Coating the pulse seeds with arappu leaf powder	To protect the seeds from ants and birds
9		Drying of blackgram seeds during new moon time	To protect from pulse beetle infestation
10	Vegetables	Neem extract/ Pungam Oil/ Panchaghavya	To control sucking pests and borers in vegetables
11	Animal husbandry	Oral administration Aloe vera & Aanai nerunji leaves	To induce heat in cows
12		Oral administration of Betelvines, omam	To solve indigestion problem in goats
13		Equal quantity of Napthalene balls and camphor were mixed with water into paste and apply on the body of cattle for 2 hours	To control parasites
14		Application of fat of pigs/henna leaf paste	To control foot and mouth disease in cattle

**10.F. Indicate the specific training need analysis tools/methodology followed for Identification of courses for farmers / farm women**

- Participatory exercises
- Farm science club conveners meeting
- Monthly zonal work shop
- SAC meetings

- Questionnaire method / Contact letter
- Village meetings
- Personal contact / Field visits
- Discussion with farmers and farm advisory visit
- Feed back analysis obtained at the end of every meeting
- Training needs registered by the youths (Training needs register)
- Farmers – scientist- extension workers quarterly interaction meetings

#### Rural youth

- Personal contact
- Participatory rural exercises
- KVK direct contact programmes/interactive meetings
- Feedback analysis obtained at the end of every meeting
- Training needs registered by the youths (Training needs register)

#### In service personnel

- Collaborative meeting with line departments
- Discussion with extension functionaries during the monthly zonal workshop
- Collaborative meeting with line departments
- Farmers – scientist- extension workers quarterly interaction meetings

#### 10.G. Field activities

(i)	Number of villages adopted	13
(ii)	Number of farm families selected	79
(iii)	Number of survey / PRA conducted	6

#### 10. H. Activities of Soil and Water Testing Laboratory

- Status of establishment of Lab : Yes
1. Year of establishment : 17.06.2005
2. List of equipments purchased with amount :

S. No.	Name of the Equipment	Qty.	Cost (Rs.)
1.	Spectrophotometer	1	75,072
2.	Flame Photometer	1	36,720
3.	P <sup>H</sup> Meter	1	7,344
4.	EC Meter	1	7,344
5.	Physical balance	1	28,080
6.	Chemical balance	1	1,01,770
7.	Water distillation still	1	26,118
8.	Nitrogen digestion and distillation	1 set	1,72,675
9.	Shaker	1 set	44,077
10.	Refrigerator	1	19,500
11.	Hot plate	1	1,875
12.	Grinder	1	11,582
13.	Mini Soil Testing kit	1	75,000
	<b>Total</b>	<b>12</b>	<b>532157</b>



**Details of soil, water and plant analysis 2016-17**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	215	215	80	21500
Water Samples	92	92	40	4600
<b>Total</b>	<b>307</b>	<b>307</b>	<b>120</b>	<b>26100</b>

**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	3807	3517	976	132075
Water Samples	3227	3176	1049	37080
<b>Total</b>	<b>7034</b>	<b>6693</b>	<b>2025</b>	<b>169155</b>

**Details of samples analyzed through mini soil test kit 2016-17**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of soil health card issued
Soil Samples	312	2232	2232

**10.I. Technology Week celebration during 2016-17** :Nil

**CELEBRATION OF TECHNOLOGY MONTH**

Period of observing Technology month : Does not arise

Total number of farmers visited : Does not arise

Total number of agencies involved : Does not arise

Number of demonstrations visited by the farmers within KVK campus: Two

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

Agriculture Production Commissioner has visited direct sown paddy crop at Parangpettai block of Cuddalore district on 26.11.16 and he visited Integrated Building for Agriculture in Vridhachalam block on 27.11.16. He insisted the scientist of RRS&KVK to give demonstration of PPFM/KCl with boom sprayer for drought affected crop of paddy in Parangipettai block. Further he visited for moisture stress maize crop Periyanesaloor village of Mangalur block. Programme coordinator of KVK,Vridhachalam, SMS (Agronomy), SMS (Pathology) demonstrated the foliar spray of KCL with boom sprayer to alleviate moisture stress in varagu crop on 27.11.16. APC has recommended to conduct action plan meeting by the Collector, Cuddalore district on awareness campaign and demonstration of PPFM foliar spray to alleviate moisture stressed paddy crop.

Following this, Cuddalore district Collector has conducted action plan meeting on 28.11.16. Collector has requested KVK scientists along with Department of Agriculture officials to give foliar spray of PPFM to mitigate moisture stressed paddy crop of Parengpettai block. The instructions were carried out by KVK scientists in Parangipettai block in coordination with DD (SS), ADA (Parangipettai) in direct seeded paddy in an area of 10 acres on 30.11.16.

## **PART XI. IMPACT**

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Sustainable sugarcane initiative	500	40	Rs. 127000/ha	Rs. 155000/ha
Value addition in millets –vocational training	20	5	Rs. 5000/month	Rs. 7000/month
Value addition in fruits and vegetables – vocational training	22	12	Rs. 7000/month	Rs. 30000/month
Quality seedling production –Vocational training	40	25	Rs. 10000/month	Rs. 35000/month
Integrated Farming system-wet land – FLD & Training	100	30	Rs.1,26,050/ha	Rs.3,61,312
Integrated Farming system –dry land – FLD & Training	100	25	Rs.10,000/ha	Rs.33,000/ha
Cluster FLD –oil seeds (Ground nut)	55	75	Rs.92,873/ha	Rs.1,95, 728/ha
Cluster FLD-Pulses (Black gram)	30	75	Rs. <b>12,528/ha</b>	Rs.19798/ha

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

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

### ***CASE 1: Quality seedling production – nursery technologies***

In Cuddalore district apart from Paddy, Sugarcane and Oilseed crops, the tree crops like Cashew, Jack, Mango are other important crops fetches commercial value to the farmers. In addition to this, the vegetable cultivation is also being carried out in about 700 ha. The quality seedling production is an important profitable venture in this district. Before the KVK interventions, farmers bought the seedlings from the nurseries of nearby districts, for which they had to pay a huge amount.

#### **Interventions of this KVK**

Realising the commercial value behind the production of quality seedling production on the above crops, this KVK arranged for series of trainings for the rural youths of this district. The quality seedling production techniques like shade net nursery establishment and maintenance, different commercial grafting methods in cashew, mango, jack and ornamental plants like, crossandra, rose, jasmine, and crotons were taught to the trainees. Besides, the rural youths were also given skill training on the production of quality seedlings on vegetable crops like brinjal, tomato, chilli, etc through portray method.

#### **After KVK intervention**

There were about 22 rural youths attended this vocational training during Jan 2010. They were also guided properly during our follow up visits. Few elite youths like, Mr.R.Muthukumaran, Mr. Murugan have first started this commercial production of quality seedlings. On seeing their success now in the Vegakollai village itself there are about 12 shade net nurseries producing the quality seedlings of the above crops. More over on our continuous and intensive efforts, there are about 15 new nursery establishments in the villages around our KVK and as of now in Cuddalore district there are about 500 shade net nurseries involved in the production of quality seedlings on commercial basis and our KVK scientists are offering valuable technology advisories to them

These nurseries are selling the seedlings to the farmers of neighbouring districts and neighbouring states like, Andhra, Karnataka and Orissa. A cashew seedling which costs around Rs. 24 at Tamil Nadu fetches higher market value of about Rs. 48 in the neighbouring states. On an average, farmers get annual average income of Rs. 200000 to Rs. 700000 depending upon the size of the shade net nurseries and the volume of the business

## ***CASE 2: Ground nut production technologies through cluster FLD approach***

Ground nut is cultivated around 15,000 ha in Cuddalore district during 2012-13. After that the area under groundnut cultivation is drastically reduced due to low yield from existing variety due to not known about improved technologies.

### **Interventions of KVK, Vridhachalam**

During 2015-16, 55 nos. of cluster FLD for ground nut has been conducted in 22 ha of land during rabi season at Chinnakomati Village, Parangaipttai Block, Sillankuppam Village, Parangaipttai Block, KaruppanchavadiI Village, Kurinjipadi Block of Cuddalore district. In cluster FLD approach KVK, Vridhachalam has demonstrated the improved variety of groundnut, TMV 13 and GJG 9, seed treatment with rhizobium and phosphor bacteria, demonstration of crop Management practices, application of groundnut rich @ 5 kg/acre and demonstration of IPDM practices and setting of pheromone traps and yellow sticky traps were conducted.

### **Impact of intervention**

The average yield obtained by cultivating GJG 9 is 47.68 q/ha when compared to check (24.50q/ha) in the cluster villages. They have also recorded higher net income of Rs.1,95,728/ha by cultivating GJG9 when compared to check (Rs.92,873/ha). The other farmers about (60 per cent) also been cultivating the GJG 9 and other improved package of practices in ground nut. The socio economic status of ground nut farmers were improved in the cluster villages. They are also willing to produce the seeds of GJG 9 by seed village concept.

### **Feedback from the farmers:**

The seeds of the GJG 9 is bolder seeds and also it is drought tolerant variety than the check. Market price fetches higher when compared to other varieties.

### **Horizontal spread**

Within a short period of 2015-16, now through interactive efforts in collaborative with local extension functionaries now about 1000 ha of area is under cultivating the GJG 9 especially in Chinnakomati Village, Parangaipttai Block, Sillankuppam Village, Parangaipttai Block, KaruppanchavadiI Village, Kurinjipadi Block of Cuddalore district.

### ***CASE 3: Black gram production technologies through cluster village approach***

#### **Intervention of KVK, Vridhachalam**

KVK, Vridhachalam has conducted 30 no. of cluster FLD in pulses trial during the year of 2015-16 at Meelpuliankudi Village, Kattumannarkoil block in 12 ha of land. The black gram yield was low in that block due to lack of awareness about improved variety and technologies.

#### **Before intervention:**

Before the intervention the yield obtained in black gram is 4.25 q/ha. The net income obtained by the farmers were very low (Rs.12,528/ha). By cluster FLD approach the following technologies and improved varieties were demonstrated like black gram var. VBN 5, Seed treatment with Rhizobium, Phosphobacteria, *Pseudomonas fluorescens*, spraying of pulse wonder, application of ZnSO<sub>4</sub> and IPM practices. The farmers were also supplied with the critical inputs like seeds, bio fertilizers, pulse wonder, ZNSO<sub>4</sub>, pheromone trap and yellow sticky trap.

#### **After intervention :**

After the intervention the yield obtained by cultivating VBN 5 is 5.21q/ha when compared to check 4.25 q/ha. The net income obtained is also improved drastically (Rs.19,798/ha) when compared to check.

#### **Feedback from the farmers:**

VBN 5 is performing better than check variety VBN 3. The no. of pods/plant obtained is higher in VBN 5 than the check.

#### **Horizontal spread**

In Meelpuliankudi Village, Kattumannarkoil block after the intervention more 100 ha of land is cultivated under VBN 5. The farmers in the neighbouring village is also willing to adopt the improved black gram var. VBN 5 and improved package of practices. They realized a better yield and net income by adopting black gram variety VBN 5 and improved package practices.

#### ***CASE 4: Integrated farming system under wetland situation***

Integrated farming system is a holistic approach which is nothing but integration of agriculturally allied enterprises along with the cropping with the objectives of increasing income and recycling of farm wastes and by products to sustain the soil productivity. The allied enterprises were selected based on the resource availability and agro ecological situation. The efficiency of the component linkages was evaluated predominately on the basis and employment generation with the possibility of recycling the organic wastes.

Earlier the small farmers followed cropping system alone (Rice-rice fallow pulses) in their farm. They earned low yield and income from the crop due to aberrant weather situations like drought, flood and cyclone etc. and also they faced unemployment combined with no income during the off season.

#### **KVK, Vridhachalam intervention:**

The integrated farming system experiments were conducted at wetland since 2012 onwards at this Kendra. Integration of crop along with fish, poultry and vermi compost unit in the wet land system under 1 ha of land. The crop (Rice-Maize/cotton-) is cultivated in 0.9 ha of land. The density of fingerlings stockings 1000 is nos. The poultry shed is erected over the fish pond with 50 nos. poultry breed of Vanaraja and Giriraja. The product from the crop like broken rice, maize grains and oil cakes were fed to poultry. The poultry droppings and rice bran, oil cakes were supplied as a feed to the fish. The byproducts were efficiently recycled in IFS through this the cost of production is greatly reduced simultaneously net income generated (Rs.3,61,312) is increased and more employment opportunity is created (1200 man days /year) is increased. During 2012-13 three nos. of wet land FLDs were conducted in Alichikudi, Gopurapuram and Puliur villages. Subsequently IFS based intensive trainings were arranged for the local farmers and extension functionaries.

#### **After intervention:**

After the technological backstopping provided by the KVK, Vridhachalam many farmers realized the benefits of IFS (wetland). They have shifted their cropping pattern and farming system from conventional to integrated farming system in order to attain the sustainable livelihood. The farmers have obtained higher production and income throughout the year. The economic and society status of the farmer is certainly by this intervention. In one hectare of wet land systems a farmer could get a net additional income of Rs.1,08,350/- from the allied enterprises apart from his crop component.

#### **Feedback from the farmers:**

Integration of crop cultivation along with fish and poultry rearing is the profitable, sustainable and employment generating technology. The financial status of the farmer is improved by this intervention. The farmers were satisfied with this intervention.

#### **Horizontal spread**

Within a short period of 2012-14, now through interactive efforts in collaborative with local extension functionaries now about 25 Nos. farmers have established their own wetland IFS system in their farms, especially in Karveppilankurchi and Chinnakanadi areas.

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

### **1. Analyzing the effectiveness of the on and off campus training programmes**

The following methods were employed to assess the effectiveness of the on and off campus training programmes.

- a. Obtaining formal feed back at the end of each training programme in the prescribed format. This revealed the effectiveness of Subject Matter Specialist, delivery of subject and the content of the training. For each and every training such analyses were carried out and based on the feedback necessary corrections were done in the training methodologies
- b. Informal discussion at the end of the training period to assess the impact of the programme
- c. For certain very important vocational trainings we assessed the pre and post training knowledge level of the trainees by employing participatory methods.
- d. Regular follow up / mobile contacts etc.,

### **2. Demonstrations and diagnostic field visits**

- a. Participatory appraisal techniques
- b. Informal discussion
- c. Personal contacts (Farm and Home visits/telephone calls/SMS communications
- d. By assessing the percentage of adoption through casual discussion and questionnaire methods

### **5. Other extension activities (Exhibitions /KVK literature/Media activities/FFS/Field days etc.,)**

- a. Feed back register
- b. Informal discussion
- c. Responses through our social media activities (Face book activities)

## PART XII - LINKAGES

### 12.A. Functional linkage with different organizations

This Kendra has developed a strong functional linkage with Govt. and Non-Govt. organizations for conducting training programmes, demonstrations, seminar, campaigns, farm advisory service, farmers study tour and other extension activities to achieve the Krishi Vigyan Kendra mandates. The details of the collaborative activities carried out are furnished below.

Name of Organization	Nature of linkage
<b>Dept. of Agriculture</b>	<ul style="list-style-type: none"> <li>◆ Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization</li> <li>◆ Mid monthly and Monthly Zonal Workshop</li> <li>◆ FLD – Field day</li> <li>◆ Participated in the training programme</li> <li>◆ Watershed &amp; Waste land development programme</li> <li>◆ Seedling supply</li> <li>◆ District level farm improvement committee</li> <li>◆ In service training to AOs /AAOs</li> <li>◆ Off campus training programme</li> <li>◆ Farm advisory services</li> <li>◆ Seed farm- seed production meeting</li> <li>◆ ATMA implementation</li> <li>◆ Precision farming project</li> </ul>
<b>Dept. of Horticulture</b>	<ul style="list-style-type: none"> <li>◆ Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization</li> <li>◆ Off campus training programme</li> <li>◆ Collaborative training programme</li> <li>◆ Seedlings supply</li> <li>◆ Demonstration</li> <li>◆ NHM training on cashew, mango, banana, chillies and loose flowers</li> <li>◆ Precision farming project</li> </ul>
<b>Annamalai University, Chidambaram</b>	<ul style="list-style-type: none"> <li>◆ Rural agricultural work experience programme</li> <li>◆ U.G. and P.G. students visit to KVK</li> <li>◆ Training to FSC clubs</li> </ul>
<b>TANUVAS, UTRC, Cuddalore</b>	<ul style="list-style-type: none"> <li>◆ Resource persons for training</li> </ul>
<b>Agricultural Extension Wing, Department of agriculture (TANCOF)</b>	<ul style="list-style-type: none"> <li>◆ Off campus training</li> <li>◆ Seed supply &amp; Watershed development</li> <li>◆ Training on oil seed production technology</li> </ul>
<b>Department of Animal husbandry</b>	<ul style="list-style-type: none"> <li>◆ Advisory service</li> </ul>



<b>Collectorate, Cuddalore</b>	<ul style="list-style-type: none"> <li>◆ Grievance day meeting</li> <li>◆ NLC expansion programme-alternate employment for displaced riots</li> <li>◆ Agricultural production council meeting</li> <li>◆ Periodical technical / consultative meeting</li> </ul>
<b>Mahalir Thittam / DRDA Cuddalore</b>	<ul style="list-style-type: none"> <li>◆ Sponsored training</li> <li>◆ SGSY – SHG training</li> <li>◆ Skill up-gradation programme</li> <li>◆ Vazhalnthukattuvom project</li> </ul>
<b>Higher Secondary Schools</b>	<ul style="list-style-type: none"> <li>◆ Awareness campaign</li> <li>◆ NSS campaign</li> </ul>
<b>NGOs</b>	<ul style="list-style-type: none"> <li>◆ Awareness campaign</li> <li>◆ Training programme</li> <li>◆ Demonstration</li> </ul>
<b>NABARD, Cuddalore</b>	<ul style="list-style-type: none"> <li>◆ Farmers group discussion</li> <li>◆ TTC meetings</li> <li>◆ Trainings to farmers</li> </ul>
<b>Agriculture Engineering Dept. Govt. of Tamil Nadu</b>	<ul style="list-style-type: none"> <li>◆ Rain water harvesting programme</li> <li>◆ Training on agricultural implements and river basin development</li> <li>◆ Resource person for department training programmes</li> </ul>
<b>ZRC, Coimbatore</b>	<ul style="list-style-type: none"> <li>◆ Training on power tiller operation, maintenance and its attachments</li> <li>◆ Implements supply</li> </ul>
<b>Dept. of Millets, TNAU, Coimbatore</b>	<ul style="list-style-type: none"> <li>◆ FLD in kodomillet and maize</li> <li>◆ Seed supply</li> </ul>
<b>Dept. of Forage crops, TNAU, CBE</b>	<ul style="list-style-type: none"> <li>◆ FLD and OFT on forage crops</li> </ul>
<b>NGO- KVKs</b>	<ul style="list-style-type: none"> <li>◆ Training and exposure visit</li> <li>◆ Seed materials supply &amp; FLD / OFT discussion</li> </ul>
<b>WTC, Tamil Nadu Agricultural University, Coimbatore</b>	<ul style="list-style-type: none"> <li>◆ Drip and sprinkler unit supply</li> <li>◆ Technical support</li> <li>◆ Training on micro irrigation</li> </ul>
<b>Indian Bank, Vriddhachalam</b>	<ul style="list-style-type: none"> <li>◆ Training programmes</li> </ul>
<b>AIR,Puducherry</b>	<ul style="list-style-type: none"> <li>◆ Helps to popularize the latest technology</li> </ul>

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

<b>Name of the scheme</b>	<b>Role of KVK</b>	<b>Date/ Month of initiation</b>	<b>Funding agency</b>	<b>Amount (Rs.)</b>
NADP – Enhancing pulse production in Delta and non-delta district	Organising training programmes	July'16 to March' 17	NADP- State Government of Tamil Nadu	2,50,000

## 12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

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

### Coordination activities between KVK and ATMA during 2016-17

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	1. GB meeting 2. Technology advisory meeting 3. ATMA functionaries, farmers and scientists interaction meet	15 13	-	-
02	Research projects	-	-	-	-
03	Training programmes	➤ Training to farmers	20	20	

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

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

12.F. Details of linkage with RKVY / NADP :

### Brief note on the highlights of the Training

The Krishi Vigyan Kendra Vriddhachalam, Cuddalore conducted 10 batches of training on “Enhancing pulses production in delta and non-delta districts under NADP” to the beneficiary farmers identified by the Assistant Director of Agriculture of five delta blocks of Cuddalore district. The blocks covered were Keerapalayam, Kaattumannarkoil, Melbhuvanagiri, Parangipettai and Kumaratchi. The pulses growing farmers were taught on improved varieties, seed treatment, rice-fallow pulses production techniques, Integrated weed and nutrient management, Crop boosters for increasing the productivity, Integrated pest and disease management.

### Schedule and venue of training

S. No.	Name of the block	Place of training	Date(s) of training	No. of trainings conducted	No. of farmers trained	No. of officials of Agriculture department attended
1	Kattumannarkoil	KVK, Vriddhachalam	02.02.17	1	100	2
2	Kattumannarkoil	Office of Asst. Director of Agriculture, Kattumannarkoil	03.02.17	1	100	3

3	Keerapalayam	Vattathur village, Keerapalayam	15.02.17	1	106	2
4	Parangipettai	North Pitchavaram	02.03.17	1	100	7
5	Parangipettai	Keelmanakudi	03.03.17	1	100	2
6	Melbhuvanagiri	KVK, Vriddhachalam	08.03.17	2	200	1. Agri. Production Commissioner, Govt. of TN 2. District Collector, Cuddalore 3. Registrar, TNAU, Coimbatore 4. Director, TRRI, Aduthurai 5. Joint Director of Agriculture, Cuddalore 6. Member of Legislative Assembly, Vriddhachalam
7	Keerapalayam	Ayipettai village, Keerapalayam	27.03.17	1	100	3
8	Kumaratchi	Themmur Village,	28.03.17	2	200	1
		<b>Total</b>		<b>7</b>	<b>1006</b>	

### Selection of trainees

Totally 1006 farmers were trained @ 200 farmers/block.

### Resource persons for the training

The KVK and RRS scientists were fully utilized as resource persons for the trainings. Officials of Department Agriculture and progressive farmers shared their views and experience.

### Method of training

The following methods were adopted to give a meaningful interpretation of the main content of the training.

- Lecture using power point slides
- Demonstration of seed treatment with biofertilizers and bio inputs
- Group discussion involving to share their experience
- Hands of exercise in the KVK computer centre to access market based information from TNAU website / agri portal.
- Training using the smart computer (Kiosk Touch Screen) of this KVK for accessing the online market intelligence information.
- Expert farmer advisory, experienced farmers / commodity group conveners shared their experiences / difficulties in agri business activities.

### 12. G. Kisan Mobile Advisory Services

A mobile advisory account has been created at the farmers' portal (KMAS) during 2016-17. Through Kisan advisory services KVK, Cuddalore has given advisory services to farmers like crop management practices based on climate, selection of suitable season and varieties and other management practices like fertilizer and weed management. Based on pest and disease outbreak we have also given advisory services to the farmers. So far 4000 no. of farmers were registered and benefitted by this service in the Cuddalore district and 48 SMS were sent to the beneficiaries through the portal.

**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.	Hi-Tech Nursery	2009	-	PLR 2	Brinjal seedling	18930	2840	17046	-
				Parul	Brinjal seedling	7908	1200	7908	
				US 243	Chillies seedling	9950	1500	9452	
2.	Goat shed	2009	-	Tellicherry Goat	Tellicherry Goat	3 nos (78.4)	1500	19600	
3.	Poultry shed	2015	-	Vanaraja	Vanaraja	8 Nos 12.3	500	2460	
4.	Vermicompost	2012	-	Vermicompost	Vermicompost				For demo purpose only
5.	Coirpith Compost	2013	-	Coirpith compost	Coirpith compost				For demo purpose only
6.	Roof Garden	2015	-	Tomato	Amman sri				For demo purpose only
				Brinjal	Ujala				
				Greens	Amaranthus				
				Lablab	Co (GB)14				
				Mint	local				
				Coriander	Local				
7.	IFS model unit	2013	-	Hen and Fish	Namakkal chicks and cat fish				For demo purpose only
8.	Medicinal plant garden	2013		Medicinal plant	Insulin ,aloe vera,etc.	45	250	900	For demo purpose and for sale.

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

Name of the crop	Date of sowing	Date of harvest	Area	Details of production			Amount (Rs.)	
				Variety	Type of produce	Qty (kg)	Cost of inputs	Gross income
Groundnut	21.12.16	23.02.17	1 ac	VRI 8	Seed	1059	7600	95310
Gingelly	2.06.16	22.08.16	1 ac	VRI 2	Seed	156	4000	20280
Blackgram	06.10.16	02.01.17	1 ac	MDU 1	Seed	115	8000	13800
Greengram	06.10.16	04.01.17	0.5 ac	CO 8	Seed	68	8000	8160

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

Sl. No.	Name of the Product	Qty (kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	<i>Pseudomonas flourescens</i>	104.5	8000	10450	-
2.	<i>Trichoderma viride</i>	177	15000	17700	

**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 (kg)	Cost of inputs	Gross income	
1.	Goat	Tellicherry	Goat	78.4	1500	19600	-
2.	Poultry	Vanaraja	Poultry	12.3	500	2460	-

**13.E. Performance of production of Mushroom**

Sl. No.	Name of the Product	Qty (kg)	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	Oyster Mushroom	15.6	900 (Only material)	1560	-

**13. F.Utilization of hostel facilities: Accommodation available (No. of beds): 09**

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2016	3	1	-
May 2016	-	-	-
June 2016	1	1	-
July 2016	-	-	-
August 2016	2	1	-
September 2016	97	1	-
October 2016	-	-	-
November 2016	260	1	-
December 2016	134	1	-
January 2017	-	-	-
February 2017	126	1	-
March 2017	279	1	-

### 13. G. Database management

S. No	Database target	Database created
1	Resource inventory of the district 1. Nine fold classification of land 2. Number and size of operational holdings 3. Weather parameters of the district (for minimum 10 years) 4. Details of soil profile 5. Detailed cropping pattern (for minimum 10 years) 6. Area, production and productivity of major crops 7. Details of livestock wealth of district 8. Production and productivity of livestock produces 9. Area under irrigation from different sources 10. Seasonal availability of labour 11. Trend in wholesale price of major crop and livestock products(for minimum 10 years) 12. Details of input agencies 13. Details of infrastructural facilities available for production, post harvest and marketing 14. Details of institutional credit facilities 15. Any other relevant to district	Completed
2	Farmers database Details of farmers	Completed
3	Technology inventory for the district Details of suitable technologies for a district with their details	Completed
4	Database for technologies assessed and refined Technologies taken up for assessment and refinement with their attributes	Completed
5	Frontline demonstrations database Details of crops and enterprises along with technologies identified for demonstration	Completed
6	Training database Details of training programmes across all categories and types of participants	Completed
7	Database of extension programmes Details of extension activities conducted with types of participants	Completed
8	Seeds and Planting material database Details of crops along with varieties produced and sold	Completed
9	KVK inventory of assets Details of inventions including all assets explaining year of purchase, present condition etc	Completed
10	KVK account database Various accounts along with their sanction, expenditure etc	Completed

### 13. H. Details on Rain Water Harvesting Structure and micro-irrigation system -Nil

**PART XIV - FINANCIAL PERFORMANCE**

**14. A. Details of KVK Bank accounts**

<b>Bank account</b>	<b>Name of the bank</b>	<b>Location</b>	<b>Branch code</b>	<b>Account Name</b>	<b>Account Number</b>	<b>MICR Number</b>	<b>IFSC Number</b>
With Host Institute	State Bank of India						
With KVK	State Bank of India	Vriddhachalam	00954	Main	11074361787	000240	SBIN0000954
	State Bank of India	Vriddhachalam	00954	RF-Farm	11074361743	000662	SBIN0000954
	State Bank of India	Vriddhachalam	00954	RF-Building	11074361754	-	SBIN0000954

**14. B. Utilization of KVK funds during the year 2016-17 (Rs. in lakh)**

S. No.	Particulars	Sanctioned	Released	Expenditure (Rs)
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	96.78		10732585
2	<b>Traveling allowances</b>	1.50		150000
		-		-
3	<b>Contingencies</b>			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3.00		274802
B	POL, repair of vehicles, tractor and equipments	1.75		150999
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	0.70		66733
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.25		24571
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	2.34		230020
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.91		67243
G	Integrated Farming system	0.30		17630
H	Training of extension functionaries	0.25		24615
I	Extension activities	0.60		58056
J	Farmers Field School	0.30		28308
K	EDP/Innovative activities	-		
L	Soil & water testing & Issue of soil health cards	0.50		21012
M	Display boards	0.10		9850
N	Maintenance of building	0.50		46289
O	Library	0.10		9189
<b>TOTAL (A)</b>		109.88		11911902
<b>B. Non-Recurring Contingencies</b>				
1	Equipments & Furniture			
	a. Office automation	3.00		3.00
	b. Furniture & Fixtures	1.00		1.00
2	Works	-		--
3	Vehicle (Four wheeler replacement)	8.00		8.00
4	Library (Purchase of assets like books & journals)	-		--
<b>TOTAL (B)</b>		121.88		14141219



#### 14.C. Status of revolving fund building (Rs. in lakh) for the three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2014 to March 2015	564474	504259	626205	442078
April 2015 to March 2016	443703	314214	368929	415971
April 2016 to March 2017	415971	742646	810277	348340

#### 15. Details of HRD activities attended by KVK staff during 2016-17

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. S. Kannan	Programme Coordinator	II <sup>nd</sup> Scientific Tamil Conference "Ariviyal tamizhil velanmai"	ADAC & RI, Trichy	05.05.16 to 06.05.16
Dr. K. Venkatalakshmi	SMS (Agronomy)	II <sup>nd</sup> Scientific Tamil Conference "Ariviyal tamizhil velanmai"	ADAC & RI, Trichy	05.05.16 to 06.05.16
Dr. A. Ramesh Kumar	SMS (Horticulture)	II <sup>nd</sup> Scientific Tamil Conference "Ariviyal tamizhil velanmai"	ADAC & RI, Trichy	05.05.16 to 06.05.16
Mrs. G. Porkodi	SMS (SS&AC)	II <sup>nd</sup> Scientific Tamil Conference	ADAC & RI, Trichy	05.05.16 to 06.05.16
Dr. M. Nirmaladevi	SMS (Agrl Extension)	Famer produced organizations- Issues and challenges	MANAGE, Hyderabad	27.06.16 to 01.07.16
Mrs. G. Porkodi	SMS (SS&AC)	MANAGE Training on "m-extension All in on mobile agricultural extension"	AC&RI, Madurai	12.09.16 to 16.09.16
Dr. T. Saravanan	SMS (Plant Pathology)	Farm mechanization in agriculture	CIAE, Coimbatore	05.11.2016
Mrs. G. Porkodi	SMS (SS&AC)	Workshop on "ICP-OES :A novel technique for elemental	AC&RI, Madurai	10.02.17
Dr. S. Kannan	Programme Coordinator	National review workshop on Rabi oil seeds	IGKV, Raipur	14.02.17 to 20.02.17
Mrs. G. Porkodi	SMS (SS&AC)	National Symposium on "Applications of Radioisotopes and Tracer Techniques in Agriculture and Environment"	Department of Soil Science & Agrl. Chemistry, TNAU, Coimbatore	16.02.17 to 17.02.17
Mrs. G. Porkodi	SMS (SS&AC)	Training on "Question paper authoring and evaluation" at TNAU	TNAU, Coimbatore On	22.02.17 to 25.02.17
Dr. S. Kannan	Programme Coordinator	2 <sup>nd</sup> KVK symposium on "Frontline Extension Programmes for realizing higher productivity and profitability in farming"	TNAU, Coimbatore	07-08.03.2017.

Dr. M. Nirmaladevi	SMS (Agrl. Extension)	2 <sup>nd</sup> KVK symposium on “Frontline Extension Programmes for realizing higher productivity and profitability in farming”	TNAU, Coimbatore	07.03.17 to 08.03.17.
Dr. T. Saravanan	SMS (Plant Pathology)	2 <sup>nd</sup> KVK symposium on “Frontline Extension Programmes for realizing higher productivity and profitability in farming”	TNAU, Coimbatore	07.03.17 to 08.03.17.
Dr. K. Natarajan	SMS (Seed tech)	2 <sup>nd</sup> KVK symposium on “Frontline Extension Programmes for realizing higher productivity and profitability in farming”	TNAU, Coimbatore	07.03.17 to 08.03.17.
Dr. A. Ramesh Kumar	SMS (Horticulture)	2 <sup>nd</sup> KVK symposium on “Frontline Extension Programmes for realizing higher productivity and profitability in farming”	TNAU, Coimbatore	07.03.17 to 08.03.17.

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

-XXXXX-

**Summary for 2016-17**  
**1. Technology assessment**

**Summary of technology assessed under various crops**

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha
Varietal evaluation	Paddy	Assessment of suitable low glycemic index rice variety	5	5	2.0
	Groundnut	Assessment of suitable confectionary groundnut variety for Cuddalore district	6	6	2.4
	Ragi	Assessment of suitable Ragi variety for Rainfed tract of Cuddalore District	5	5	2.0
	Cumbu	Assessment of suitable Cumbu varieties for Cuddalore district	5	5	2.0
	Blackgram	Assessment of suitable rice fallow black gram variety	5	5	2.0
	Sesame	Assessment of suitable rice fallow sesame	5	5	2.0
Nutrient management	Chilli	Assessment of nutripellet pack technology in Chilli	10	10	4.0
ICM	Cashew	Assessment of control methods for stem and root borer in Cashew	10	10	4.0
Resource conservation					
<b>Total</b>			<b>51</b>	<b>51</b>	<b>20.4</b>

**Summary of technologies refined in respect of livestock enterprises : Nil**

**II. Technology refinement: NIL**

### III. FRONT LINE DEMONSTRATIONS

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demos.	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										
Paddy	Demonstration of submergence tolerant paddy variety CR1009 Sub 1 in Cuddalore District	CR1009 Sub 1	--	Irrigated	20	8	80.32	63.00	71.49	53.26	34.54	54114	125116	71001	2.32	61106	93205	32098	1.52
Paddy	Demonstration of paddy variety TPS 5 of Cuddalore District	TPS 5		Irrigated	20	8	67.72	45.67	58.35	49.37	18.0	55674	101535	45861	1.82	61459	85914	24455	1.40
Paddy	Demonstration of TKM 13 paddy variety in samba season	TKM 13		Irrigated	10	4	79.5	74.21	76.11	67.56	12.66	46892	107311	60419	2.29	43854	81069	37215	1.85
Paddy	Demonstration of pani pipe indicator tool of AWD in paddy	BPT 5204		Irrigated	6	2.4	60.50	55.90	57.30	51.77	9.7	59917	123202	63286	2.1	62567	111334	48768	1.8
Paddy	Demonstration of IPM for blast disease in samba paddy	CR 1009		Irrigated	20	8	71.14	66.64	69.18	60.10	14.97	46434	110701	59624	2.16	43416	89850	46434	2.06
Maize	Integrated crop management in maize CO 6		CO 6	Irrigated	10	4	76.7	69.1	73.79	61.21	20.55	53350	118064	64714	2.2	44910	78641	33731	1.75

Sesame	Demonstration of TNAU micro nutrient mixture application to irrigated sesame	VRI 2	--	irrigated	7	2.8	7.47	6.75	7.11	6.24	12.2	22579	42660	19738	2.1	21479	37414	15655	1.9
Brinjal	Demonstration of eco-friendly pest management in brinjal	PLR2		Irrigated	15	3	320	269	298.1	291.7	2.41	58100	208699	150599	3.59	62739	204197	141458	3.25
Snake gourd	Demonstration of ICM in Snake gourd			Irrigated	8	3.2	278.7	259.7	267.6	219.7	21.80	100930	280126	179196	2.78	97093	215837	11874	2.22
Bhendi	Demonstration of Bhendi hybrid CO 4		CO 4	Irrigated	10	2.0	265.7	250.0	259.1	219.2	18.23	78100	231358	153258	2.96	74513	181647	107135	2.44
Cashew	Demonstration of crop management practices for improving yield in cashew	VRI 3	--	Irrigated	5	2.0	5.10	4.64	4.85	4.37**	<b>Trial is in progress</b>								
Brinjal	Demonstration of grafted brinjal	PLR2	--	Irrigated	5	0.2	<b>Trial is in progress</b>												

Value Addition in varagu	Demonstration of CO3 varagu for nutritious for fibre rich nutritious noodles preparation	CO 3 varagu	--	Rainfed	10	4a c	16.5	14.2	15.4	11.70	31.62 (Yield parameters of crop cultivation)	510 (Economics of noodles preparation)	2400	1890	4.71	410	1400	990	3.41
Value addition in cashew apple juice	Demonstration of preserved cashew apple juice for commercialization	Cashew apple juice	VRI 3	Nil	-	10	-	-	-	-	Local available variety	620	1600	980	2.58	No check due to no cashew apple product is available in the market			
Fodder crops	Demonstration of fodder crops		CO (CN) 5	Irrigated	5	1	1264	1200	1233	1193.8 (yield of Co 3 grass fodder)	It is observed that feeding of animals with mixed fodder crops viz., grass and legume fodder increases the milk yield in animals as compared with the feeding of mono fodder (grass fodder). An average increase of 0.980 lit/day is observed.								
		CO (FS) 31					500	452	477.9										
		CO (FC) 8					125	105	114										
		Velim asal					25.5	20.1	235.4										
Fish farming	Demonstration of composite fish farming in farm ponds	Rohu catla Mirgal		Irrigated	7	2.8	3890	3200	3638	-	-	109571	327407	217835	2.99	-			

\* 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

\*\*\* **Yield of only two harvest. Complete harvest will be done during June, 2017**

## IV. TRAINING

### 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		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Weed management	02	35	06	41	06	08	14	41	14	55
Resource conservation technologies	01	41	05	46	13	02	15	54	07	61
Cropping systems	01	33	04	37	05	04	09	38	08	46
Crop diversification	01	18	03	21	09	01	10	27	04	31
Integrated farming	02	25	06	31	07	02	09	32	8	40
Micro irrigation / irrigation	01	24	03	27	11	03	14	35	06	41
Seed production	02	63	15	78	24	9	33	87	24	111
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated crop management	03	115	18	133	37	17	54	152	35	187
Soil and water conservation	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	01	34	06	40	07	03	10	41	9	50
Production of organic inputs	01	27	04	31	13	04	17	40	8	48
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Nursery raising	01	23	02	25	07	-	07	30	02	32
Protective cultivation	03	38	11	39	17	05	22	45	16	61
<b>b) Fruits</b>										
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
<b>c) Ornamental Plants</b>										
Nursery management	-	-	-	-	-	-	-	-	-	-
<b>d) Plantation crops</b>										
Production and management technology	-	-	-	-	-	-	-	-	-	-
<b>e) Tuber crops</b>										
Production and management technology	-									-

<b>f) Spices</b>	01	15	4	19	3	-	3	18	04	22
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management	-	-	-	-	-	-	-	-	-	-
<b>Soil Health and Fertility Management</b>										
Soil fertility management	-	-	-	-	-	-	-	-	-	-
Integrated water management	-	-	-	-	-	-	-	-	-	-
Integrated nutrient management	01	86	4	90	29	8	37	115	12	127
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of problematic soils	01	18	05	23	7	3	10	25	8	33
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Soil and water testing	02	102	4	106	33	8	41	135	12	147
<b>Livestock Production and Management</b>										
Poultry management	-	-	-	-	-	-	-	-	-	-
Feed and fodder technology	01	31	02	33	04	-	04	35	02	37
<b>Home Science/Women empowerment</b>										
Value addition	04	58	29	87	25	23	48	83	52	135
Location specific drudgery production	-	-	-	-	-	-	-	-	-	-
<b>Agril. Engineering</b>										
Farm machinery and its maintenance	01	38	10	48	2	-	2	40	10	50
<b>Plant protection</b>										
Integrated pest management	02	48	13	51	06	01	07	54	14	68
Integrated disease management	03	69	07	76	18	03	21	87	10	97
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
<b>Fisheries</b>										
Integrated fish farming	-	-	-	-	-	-	-	-	-	-
Composite fish culture	01	42	-	46	4	-	4	46	-	46
<b>Production of Inputs at site</b>										
Seed production	02	37	4	41	15	-	15	52	4	56
Planting material production	02	28	13	41	12	8	20	40	21	61
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides	-	-	-	-	-	-	-	-	-	-



production										
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Mushroom production	-	-	-	-	-	-	-	-	-	-
Others	02	37	18	55	21	4	25	58	22	80
<b>Total</b>	<b>42</b>	<b>1085</b>	<b>196</b>	<b>1265</b>	<b>335</b>	<b>116</b>	<b>451</b>	<b>1410</b>	<b>312</b>	<b>1722</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		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Weed management	03	77	14	91	28	15	43	105	29	134
Resource conservation technologies	01	34	02	36	13	01	14	47	3	50
Cropping systems	04	96	29	125	60	25	85	156	54	210
Crop diversification	02	27	12	39	10	04	14	37	16	53
Integrated farming	03	48	27	65	19	7	26	67	34	101
Micro irrigation / irrigation	04	47	13	60	15	02	17	62	15	78
Seed production	03	87	23	110	42	26	68	129	49	178
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated crop management	06	107	19	126	37	13	50	144	32	176
Soil and water conservation	-	-	-	-	-	-	-	-	-	-
Integrated nutrient management	02	26	4	30	15	3	18	41	7	48
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Off-season vegetables	02	27	37	64	8	02	10	35	39	74
Nursery raising	-	-	-	-	-	-	-	-	-	-
Protective cultivation	02	42	15	57	13	7	20	55	22	77

<b>b) Fruits</b>	-	-	-	-	-	-	-	-	-	-
Cultivation of fruit	02	36	4	40	15	04	19	51	08	59
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-
<b>g) Spices, Medicinal and Aromatic Plants</b>										
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	02	25	14	39	16	03	19	41	17	58
Soil fertility management	03	39	13	52	17	02	19	56	15	71
Integrated water management	01	16	7	23	9	02	11	25	9	34
Integrated nutrient management	04	87	11	98	38	03	41	125	14	139
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of problematic soils	03	48	21	69	02	01	03	50	22	74
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient use efficiency	03	61	28	89	23	04	27	84	32	116
Balanced use of fertilizers	-	-	-	-	-	-	-	-	-	-
Soil and water testing	03	55	19	74	28	7	35	83	26	109
Dairy management	01	17	10	27	11	04	15	28	14	42
Poultry management	01	14	16	30	06	05	11	20	21	41
Animal nutrition management	-	-	-	-	-	-	-	-	-	-

Household food security by kitchen gardening and nutrition gardening	-	-	-	-	-	-	-	-	-	-
Value addition	03	26	31	57	04	7	11	30	38	68
Location specific drudgery production	-	-	-	-	-	-	-	-	-	-
Farm machinery and its maintenance	01	48	-	48	27	-	27	75	-	75
Installation and maintenance of micro irrigation systems	04	37	02	39	15	-	15	52	2	54
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
Post harvest technology	02	23	7	31	16	5	21	39	12	51
Integrated pest management	06	86	13	99	37	11	48	123	24	147
Integrated disease management	08	95	7	102	19	7	26	114	14	128
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
<b>Fisheries</b>										
Integrated fish farming	02	18	2	20	03	-	3	21	2	23
Planting material production	-	-	-	-	-	-	-	-	-	-
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-

Mushroom production	-	-	-	-	-	-	-	-	-	-
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers /youths	-	-	-	-	-	-	-	-	-	-
<b>Others</b>	02	27	5	32	13	01	14	40	06	46
<b>Total</b>	<b>83</b>	<b>1376</b>	<b>405</b>	<b>1772</b>	<b>559</b>	<b>171</b>	<b>730</b>	<b>1935</b>	<b>576</b>	<b>2514</b>

### Training for rural youths including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery management of horticulture crops	01	15	02	17	02	01	03	17	03	20
Protected cultivation of vegetable crops	02	27	02	29	04	01	05	31	3	34
Seed production	01	28	03	30	11	02	13	39	5	44
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Planting material production	02	35	08	43	05	01	06	40	9	49
Vermi-culture	-	-	-	-	-	-	-	-	-	-
Mushroom production	02	25	18	43	10	-	10	35	18	53
Value addition	03	33	13	46	11	02	13	44	15	59
Post harvest technology	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>11</b>	<b>163</b>	<b>46</b>	<b>208</b>	<b>43</b>	<b>7</b>	<b>50</b>	<b>206</b>	<b>53</b>	<b>259</b>

### Training for rural youths including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery management of horticulture crops	-	-	-	-	-	-	-	-	-	-
Training and pruning of orchards	01	18	01	19	05	02	07	23	03	26
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-
Integrated farming	02	15	02	17	02	01	03	17	03	20
Seed production	03	47	14	61	08	02	10	55	16	71
Planting material production	01	21	03	24	04	01	05	25	4	29
Mushroom production	01	12	04	16	05	02	07	17	06	23
Value addition	03	33	02	35	08	04	12	41	06	47
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>11</b>	<b>146</b>	<b>26</b>	<b>172</b>	<b>32</b>	<b>12</b>	<b>44</b>	<b>178</b>	<b>38</b>	<b>216</b>

### Training programmes for extension personnel including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	04	119	47	165	38	16	54	157	63	220
Integrated pest management	03	77	33	110	27	12	39	104	45	149
Integrated nutrient management	02	48	08	56	11	06	17	59	14	73
Protected cultivation technology	01	27	09	36	09	02	11	36	11	47
Information networking among farmers	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>06</b>	<b>213</b>	<b>44</b>	<b>257</b>	<b>11</b>	<b>06</b>	<b>16</b>	<b>224</b>	<b>49</b>	<b>271</b>

**Training programmes for extension personnel including sponsored training programmes (off campus) Nil.**

**Sponsored training programmes conducted**

S. No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>1</b>	<b>Crop production and management</b>										
1.a.	<b>Others (pl. specify)</b>										
	NADP- Enhancing pulses production in delta and non-delta districts	10	528	176	704	187	109	296	715	285	1000
	<b>Total</b>	10	528	176	704	187	109	296	715	285	1000

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

S. No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1.a.	Integrated crop management(IFS)	-	-	-	-	-	-	-	-	-	-
1.b.	Organic farming	-	-	-	-	-	-	-	-	-	-
2.a.	Value addition	02	26	13	39	02	16	18	28	29	57
3.a.	Vermi-composting	-	-	-	-	-	-	-	-	-	-
3.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-
3.c.	Mushroom cultivation	02	38	08	46	07	01	08	45	09	54
3.d.	Nursery, grafting etc.	-	-	-	-	-	-	-	-	-	-
	<b>Grand Total</b>	<b>04</b>	<b>64</b>	<b>21</b>	<b>85</b>	<b>09</b>	<b>17</b>	<b>26</b>	<b>73</b>	<b>38</b>	<b>111</b>

## V. EXTENSION ACTIVITIES

Extension programmes (including extension activities undertaken in FLD programmes)

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field day										
Kisan mela	3	906	214	1120	237	96	333	14	13	27
Exhibition	9	MASS								
Film show	02	117	15	132	43	08	51	02	01	03
Method demonstrations	18	219	18	237	76	08	84	10	09	19
Farmers seminar	-	-	-	-	-	-	-	-	-	-
Workshop	01	107	13	120	48	02	50	8	5	13
Group meetings	16	98	35	133	24	13	37	15	13	28
Lectures delivered as resource persons	27	MASS								
Newspaper coverage	23	MASS								
Radio talks	5	MASS								
TV talks	8	MASS								
Popular articles	8	MASS								
Extension literature	15	MASS								
Advisory services	489	318	13	331	147	11	158	05	02	07
Scientific visit to farmers field	98	125	08	133	16	03	19	15	06	21
Farmers visit to KVK	-	873- Excluding the major programmes held at KVK								
Diagnostic visits	78	102	03	102	13	03	16	10	8	18
Exposure visits	11	568	186	754	187	109	296	-	-	-
Celebration of important days (World soil day)	1	83	15	98	22	7	29	-	-	-
<b>Total</b>	<b>694</b>	<b>1401</b>	<b>273</b>	<b>1671</b>	<b>457</b>	<b>148</b>	<b>605</b>	<b>53</b>	<b>34</b>	<b>87</b>

## VI. PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

Production of seeds by the KVKs:

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Quantity of seed (kg)	Value (Rs)	Number of farmers
Oilseeds	Groundnut	VRI 8	1059 kg	95310	27
	Gingelly	VRI 2	156 kg	20280	78
Pulses	Blackgram	MDU 1	117 kg	14040	17
	Greengram	CO 8	68 kg	8160	25
<b>Total</b>			1400	137790	147

## Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the variety (if hybrid pl. specify)	Number	Value (Rs.)	Number of farmers
Fruits	Cashew grafts	VRI 3	11114	280152	87 farmers and Supplied to the Department of Horticulture of Ariyalur and Kancheepuram district
	Jack grafts	PLR 1	10	500	5
	Jack Root stock	PLR 1	2000	20000	Supplied to the RRS, Vridhachalam
Fodder	Cumbu Napier	COCN 4	13000	6500	23
Medicinal and Aromatic	Insulin and Aloe vera	-	45	900	15
Ornamental plants	Crotons and rose	-	11	220	6
Brinjal –protray seedlings	Brinjal	PLR 2	18930	17046	158
Brinjal –protray seedlings	Brinjal	Parul	7908	7908	137
Chillies – Protray seedling	Chillies	US 243	9950	9452	96
Teak seedlings	Teak	-	614	6140	48
<b>Total</b>			<b>63582</b>	<b>348818</b>	<b>575</b>

## Production of bio-product

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	Number of farmers
		kg		
<i>Pseudomonas fluorescens</i>	<i>Pseudomonas fluorescens</i>	104.5	10450	80
<i>Trichoderma viride</i>	<i>Trichoderma viride</i>	177	17700	123
<b>Total</b>		<b>281.5</b>	<b>28150</b>	<b>203</b>

## Production of livestock materials :

Live stock	Name of the live stock	Quantity	Value (Rs.)	Number of farmers
		kg		
Goat	Goat	78.4	19600	3
Poultry	Poultry	12.3	2460	4
<b>Total</b>		<b>90.7</b>	<b>22060</b>	<b>7</b>

## Production of Mushroom :

Name of the Product	Name of the Mushroom	Quantity	Value (Rs.)	Number of farmers
		kg		
Mushroom	Oyster mushroom	15.6	1560	15
<b>Total</b>		<b>15.6</b>	<b>1560</b>	<b>15</b>



## Details of soil, water and plant analysis 2016-17

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	215	215	80	21500
Water Samples	92	92	40	4600
<b>Total</b>	<b>307</b>	<b>307</b>	<b>120</b>	<b>26100</b>

## 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	3807	3517	976	132075
Water Samples	3227	3176	1049	37080
<b>Total</b>	<b>7034</b>	<b>6693</b>	<b>2025</b>	<b>169155</b>

## Details of samples analyzed through mini soil test kit 2016-17

Details	No. of Samples analyzed	No. of Farmers benefited	No. of soil health card issued
Soil Samples	252	2232	2232

## VIII. Details of SAC meeting conducted:

Date: 15.11.2016

No of participants: 22

## IX. Newsletter

No of issues of the newsletter published : 4 Nos. (Quarterly)

## X. PUBLICATION

### Literature Developed/Published (with full title, author & reference)

S. No	Publications	Title
1.	Books	-
2.	Booklets	<p>1. Porkodi. G, A. Ramesh Kumar, T. Saravanan, K. Natarajan, M. Nirmaladevi, K. Venkatalakshmi, T. Kumar, K. Meenalakshmi, R. Samundeeswaran, S. Kannan and M.S. Aneesa Rani. 2016. Pulses production technology (Tamil). Published by Programme Co-ordinator, KVK, Vriddhachalam, Cuddalore dt.</p> <p>2. Ramesh Kumar. A., S. Kannan, , K. Natarajan, T. Saravanan, M. Nirmala Devi, K. Venkatalakshmi, G.Porkodi, D. Kumar, G. Meenalakshmi, R. Samundeeswaran and M. S. Aneesa Rani. 2016. Banana cultivation (Tamil). Published by KVK, Vriddhachalam.</p> <p>3. Kannan. S., A. Ramesh Kumar, K. Natarajan, M. Nirmaladevi, T. Saravanan, K. Venkatalakshmi, G. Porkodi, G.Meenalakshmi, R. Samundeeswaran, T. Kumar and M.S. Aneesa Rani. 2016. Processing of vegetables, fruits and minor millets (Tamil), published by KVK, Vriddhachalam.</p> <p>4. Natarajan. K., M. Nirmaladevi, T. Saravanan, G. Porkodi, A. RameshKumar, K. Venkatalakshmi, G. Meenalakshmi, R. Samundeeswaran, T. Kumar, S. Kannan, and M.S. Aneesa Rani. 2016. Seed production in green manure crops (Tamil), published by KVK, Vriddhachalam.</p>

		<p>5. Porkodi. G., T. Saravanan, M. Nirmaladevi, K. Venkatalakshmi, A. RameshKumar, K. Natarajan, G. Meenalakshmi, R. Samundeeswaran, T. Kumar, S. Kannan, and M.S. Aneesa Rani. 2016. Soil health management and nutrient management for crops (Tamil), published by KVK, Vriddhachalam.</p> <p>6. Venkatalakshmi. K., G. Porkodi, K. Natarajan, T. Saravanan, M. Nirmaladevi, A. RameshKumar, G. Meenalakshmi, R. Samundeeswaran, T. Kumar, S. Kannan, and M.S. Aneesa Rani. 2016. Improved package of practices for groundnut and value addition in groundnut. (Tamil), published by KVK, Vriddhachalam.</p> <p>7. Ramesh Kumar. A., M. Nirmaladevi, G. Porkodi, T. Saravanan, K. Venkatalakshmi, K. Natarajan, T. Kumar, G. Meenalakshmi, R. Samundeeswaran, S. Kannan and M.S. Aneesa Rani. 2016. Roof garden (Tamil), published by KVK, Vriddhachalam</p> <p>8. Porkodi, G., T. Saravanan, M. Nirmaladevi, K. Natarajan, A. RameshKumar, K. Venkatalakshmi, T. Kumar G. Meenalakshmi, R. Samundeeswaran, S. Kannan, and M.S. Aneesa Rani. 2017. Management of nutrients deficiency in crop (Tamil), published by KVK, Vriddhachalam.</p> <p>9. Nirmaladevi, M., G. Porkodi, T. Saravanan, K. Natarajan, A. RameshKumar, K. Venkatalakshmi, T. Kumar G. Meenalakshmi, R. Samundeeswaran, S. Kannan, and M.S. Aneesa Rani. 2017. Fodder production (Tamil), published by KVK, Vriddhachalam.</p> <p>10. Saravanan, T., M. Nirmaladevi, G. Porkodi, K. Venkatalakshmi, A. RameshKumar, K. Natarajan, G. Meenalakshmi, R. Samundeeswaran, T. Kumar S. Kannan, and M.S. Aneesa Rani. 2017. Mushroom cultivation techniques (Tamil), published by KVK, Vriddhachalam.</p> <p>11. Saravanan, T., M. Nirmaladevi, G. Porkodi, K. Venkatalakshmi, A. RameshKumar, K. Natarajan, G. Meenalakshmi, R. Samundeeswaran, T. Kumar S. Kannan, and M.S. Aneesa Rani. 2017. Management of paddy cultivation by organic method (Tamil), published by KVK, Vriddhachalam.</p> <p>12. Ramesh Kumar, A., Porkodi, G., T. Saravanan, K. Natarajan, M. Nirmaladevi, K. Venkatalakshmi, S. Kannan, and M.S. Aneesa Rani. 2017. Improved pulse production technology in delta area (Tamil), published by KVK, Vriddhachalam.</p> <p>13. Ramesh Kumar. A., M. Nirmaladevi, G. Porkodi, T. Saravanan, K. Venkatalakshmi, K. Natarajan, T. Kumar, G. Meenalakshmi, R. Samundeeswaran, S. Kannan and M.S. Aneesa Rani. 2016. Roof garden (Tamil), published by KVK, Vriddhachalam</p>
3.	Research articles	<ul style="list-style-type: none"> <li>• ம. நிர்மலாதேவி, த. சரவணன், திருமதி. கு. பொற்கொடி, சு. கண்ணன் மற்றும் முனைவர். மு.சை. அனீசாராணி. 2016. கடலூர் மாவட்டத்திற்கேற்ற உளுந்து-எம்டியு 1 (MDU1) இரகத்தினை மதிப்பீடு செய்தல்.</li> <li>• கு. பொற்கொடி, த. சரவணன், ம. நிர்மலாதேவி, சு. கண்ணன் மற்றும் எம். எஸ். அனீசாராணி. 2016. கடலூர் மாவட்டத்தில் மதுரை 6 (ஆனூரு 6) நெல் இரகத்தைக் குறுவைப் பருவத்தில் மதிப்பீடு செய்தல். பக்கம் 309 – 310 அறிவியல் தமிழில் வேளாண்மை உட. – தேசிய கருத்தரங்கு. நாள் 05.05.16 – 06.05.16. (ISBN : 81-902877-3-7)</li> <li>• Ramesh Kumar, A., T. Saravanan, K. Natarajan, S. Kannan and M.S. Aneesa Rani. 2016. Integrated Crop Management (ICM) for watermelon (Tamil). In: IInd Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp: 4-8.</li> <li>• Ashok A.D., A. Ramesh Kumar, V. Dhivyabharathi, P. Shrinivi, P. Vinotha, M. Santhakumari, U. Indumathi, G. Kalaiyarasi, N. Savithiri, K. Venkatesan and M. Jawaharlal. 2016. Studies on ripening behavior of Grand Naine banana (Tamil). In: IInd Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp: 436-442.</li> </ul>

		<ul style="list-style-type: none"> <li>• Kannan S., A. Ramesh Kumar, T. Saravanan and M.S. Aneesa Rani. 2016. Identification of suitable variety in cashew for value addition. (Tamil). In: IInd Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp: 952-955.</li> <li>• Santhi V.P., A. Ramesh Kumar, H. Vijayaraghavan and M. Jawaharlal. 2016. Collection and evaluation of guava germplasm for yield, quality and physiological properties under saline-sodic condition. In: National conference on “Fruit breeding in tropics and subtropics- An Indian perspective” held at IIHR, Bengaluru during 27-29, April, 2016 and organized by IIHR, Bengaluru.</li> <li>• Ramesh Kumar, T. Saravanan, S. Kannan and M.S. Aneesa Rani. 2017. Demonstration Of Bunch Nutrition In Banana. In: 2<sup>nd</sup> KVK symposium on “Frontline Extension Programmes for realizing higher productivity and profitability in farming” held at TNAU, Coimbatore during 07-08.03.2017.</li> <li>• Venkatalakshmi K.,S.Avudaithai and P.Puvilla. 2016. Effect of integrated agronomic management practices on physiological,nutrient uptake and yield of red gram. (Tamil). In: II<sup>nd</sup> Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp: 118-121</li> <li>• Puvilla P., L.R.Latha and K.Venkatalakshmi. Soil nutrient status of red gram + green gram intercropping system. (Tamil). In: II<sup>nd</sup> Scientific Tamil Conference, held at ADAC &amp; RI, Trichy, during 05.05.16 to 06.05.16, pp:630-631</li> <li>• பொற்கொடி. கு, ம. நிராமலாதேவி, த. சரவணன், சு. கண்ணன் மற்றும் எம்.எஸ்.அனீசா ராணி. 2016. மக்காசோளத்தில் ஊட்டமேற்றப்பட்ட உர விதை குப்பியை மதிப்பீடு செய்தல். 2 வது தேசிய கருத்தரங்கு- தமிழால் இயலும் - வேளாண்மை, கால்நடையியல், நாள் 05.08.16 – 06.08.16.</li> <li>• நிராமலாதேவி ம., த. சரவணன், கு. பொற்கொடி, சு. கண்ணன் மற்றும் மு.சை. அனீசாராணி. 2016. கடலூர் மாவட்டத்திற்கேற்ற உளுந்து-எம்டியு 1 (MDU1) இரகத்தினை மதிப்பீடு செய்தல். 2 வது தேசிய கருத்தரங்கு- தமிழால் இயலும் - வேளாண்மை, கால்நடையியல், நாள் 05.08.16 – 06.08.16.</li> <li>• Porkodi, G., T. Saravanan, M. Nirmaladevi. 2017. Nutri seed pack technology in maize COH (M) 6. National symposium “Applications of Radioisotopes and Tracer Techniques in Agriculture and Environment” on 16-17 February 2017 at Dept. of Soil Science &amp; Agrl. Chemistry, TNAU, Coimbatore. p: 147. ISBN: 978-93-80769-83-7</li> <li>• Nirmala Devi, M. T Saravanan, G Porkodi, S Kannan and M S Aneesa Rani. 2017. Performance of MDU 1 blackgram variety in Cuddalore district. Second KVK Symposium on Frontline extension programmes for realizing higher productivity and profitability in farming held at TNAU, Coimbatore from 07.03.17 to 08.03.17.P.No. 46. ISBN: 978938379-7</li> <li>• Saravanan, T. G Porkodi, M Nirmala Devi, S Kannan and M S Aneesa Rani. 2017. Integrated Pest Management practices in brinjal. Second KVK Symposium on Frontline extension programmes for realizing higher productivity and profitability in farming held at TNAU, Coimbatore from 07.03.17 to 08.03.17. P.No. 100-101. ISBN: 978938379-7</li> </ul>
4.	Folders/Pamphlets	<ul style="list-style-type: none"> <li>• Ramesh Kumar A., S. Kannan and M.S. Aneesa Rani. 2016. Cultivation of grafted brinjal (Tamil), published by KVK, Vriddhachalam.</li> <li>• Production of biocontrol agents (Tamil). 2016. Published by KVK, Vriddhachalam.</li> <li>• Blackgram seed production techniques (Tamil). 2016. Published by KVK, Vriddhachalam.</li> <li>• Slatted goat rearing unit (Tamil). 2016. Published by KVK, Vriddhachalam.</li> <li>• Drought and flood management practices in paddy. (Tamil). 2016. Published by KVK, Vriddhachalam.</li> </ul>

5.	Popular articles & New Paper	<ol style="list-style-type: none"> <li>1. தமிழ்மணி, சு. வே. பிரியா, சு. கீர்த்திகா, சு. கண்ணன் மற்றும் ம. நிர்மலாதேவி சிறுதானியங்களில் சிறந்து விளங்கும் கம்பு. பச்சையூமி. டிசம்பர். 2015. ப. எண் 16-17.</li> <li>2. கண்ணன். சு, ம. நிர்மலாதேவி மற்றும் சு. தமிழ்மணி. மருத்துவப் பயன்பாடு உள்ள கம்பு உணவு. உழவரின் வளரும் வேளாண்மை. நவம்பர் 2015. ப. எண் 45-48.</li> <li>3. நிர்மலாதேவி ம., சு. கண்ணன் மற்றும் முனைவர். மு.சை. அனீசாராணி. 2016. மதிப்புக்கூட்டப்பட்ட பொருட்கள் தயாரிப்பு. சிறந்த பெண் தொழில் முனைவோரின் அனுபவம். உழவரின் வளரும் வேளாண்மை. செப்டம்பர் 2016. ப. எண் 42-44.</li> <li>4. Aneesa Rani M.S., D. Keiser Lourdusamy and A. Ramesh Kumar. 2016. Vetiver- A God's gift for flood and drought prone area (Tamil). Ulavarin Valarum Velanmai. Pp; 32-35.</li> <li>5. Aneesa rani M.S., D. Keisar Lourdusamy and A. Ramesh Kumar. 2016. Pruning and foliar spray of nutrients to get higher yields in cashew. Velan Vanika Ulagam, September, 2016, pp: 60-61.</li> <li>6. Porkodi, G., M. Nirmaladevi, T. Saravanan, S. Kannan and M.S. Aneesa Rani. 2017. "மண் வளம் - நிலையான வேளாண்மையின் அடித்தளம்". Pp: 51-55. Farm fest – 2017. XXXI flower, vegetable and fruit show Souvenir, Puducherry on 27<sup>rd</sup> -29<sup>th</sup> January, 2017.</li> <li>7. Kannan. S., M. Nirmaladevi, T. Saravanan, G. Porkodi and M.S. Aneesa Rani. 2017. "சாமையில் மதிப்புக் கூட்டப்பட்ட பேக்கரி உணவு வகைகள்" Pp: 79-83. Farm fest – 2017. XXXI flower, vegetable and fruit show Souvenir, Puducherry on 27<sup>rd</sup> -29<sup>th</sup> January, 2017.</li> <li>8. Saravanan, T., M. Nirmaladevi, G. Porkodi, S. Kannan and M.S. Aneesa Rani. 2017. "உணவுக் காளான் மகத்துவம் மற்றும் பயன்கள்". Pp: 84-86. Farm fest – 2017.</li> </ol>
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## On Farm Testing (OFTs)



**Field visit to OFT on assessment of low glycemic index paddy varieties at Melpuliankudi village on 10.01.17**



**Field visit to OFT on assessment of low glycemic index paddy varieties at Alichikudi village on 19.01.17**



**Field visit to OFT on assessment of cumbu variety**



**Field visit to OFT on assessment of cumbu variety**



**Field visit to OFT on Assessment of suitable ragi varieties on 23.02.17-Pudukooraipeetai**



**Field visit to OFT on Assessment of suitable ragi varieties on 23.02.17- at Kuppanatham**



**Field visit -OFT rice fallow black gram**



**Assessing the crop growth in OFT rice fallow black gram**



**On Farm Testing (OFTs)**



**Field visit for OFT on assesment of confectionary groundnut varieties at Ayyankurinchipadi**



**Field visit for OFT on suitable rice fallow sesame**



**Field visit for OFT on suitable rice fallow sesame**



**Field visit to assesment of nutripellet pack technology in Chili**



**Field visit to assesment of nutripellet pack technology in Chili**





**Field visit to OFT on assessment of control methods for stem and root borer in Cashew**

**Field visit to OFT on assessment of control methods for stem and root borer in Cashew**

**Front Line Demonstration (FLDs)**



**Demonstration of submergence tolerant paddy variety CR 1009 Sub 1 in flood affected areas in cuddalore district**



**Demonstration of TKM 13 paddy variety for samba season**



**Demonstration of in paddy variety TPS 5**



**Demonstration of pani pipe-indicator tool of AWD in paddy**



**Front Line Demonstration (FLDs)**



**Demonstration of IPM for blast disease in samba paddy**



**Demonstration of integrated crop management in maize CO 6**



**Demonstration of TNAU micro nutrient mixture application to irrigated sesame**





**Demonstration of grafted brinjal  
Front Line Demonstration (FLDs)**



**Demonstration of eco-friendly pest management in brinjal**



**Demonstration of bhendi CO 4 hybrid**



**Demonstration of ICM in snake gourd**





**Demonstration of fodder crops**



**Oncampus Training**



**Groundnut seed production technology**



**Value addition in Jack fruit**



**IPDM In Vegetables**



**Cashew cultivation and Value addition**





**Composite Fish Farming**



**Value addition in Vegetables and Minor millets**

**ICT tools in agriculture**



**IPDM In Paddy**

**Off campus Training**



**Turmeric cultivation at Adari village**



**Fodder and Milk production at Alandur village**



**Blackgram production technology at Ayyankurinipadi village**



**Maize and cotton production technology at Ariyanatchi village**





**Banana cultivation at Ramapuram village**



**Groundnut production technology at Karuppanchavadi village**



**Training on Pest and disease management in kuruvai paddy on 02.06.16**



**Maize production technology at Kattumailur village**

**Front Line Demonstration (FLDs)**



**Demonstration of composite fish farming in farm ponds**



**Demonstration of preserved cashew apple juice for commercialization**







**Demonstration of Co3 varagu for fibre rich nutritious noodles preparation**



**Demonstration of crop management practices for improving yield in Cashew**

**Field day**



**FLD on Demonstration of TKM 13 paddy variety**



**FLD on Demonstration of Groundnut variety**



**Photographs of Rabi Campaign Programme at KVK, Cuddalore on 05.12.2016**



**The Programme Coordinator, KVK, Vridhachalam explained the activities of KVK to the Department officials and farmers in the stall**



**The solar traps from private company exhibited in the stalls.**





**Welcome address given by the Programme Coordinator, KVK, Cuddalore**



**Special address given by the Deputy Director of Agriculture, Cuddalore**



**Chief guest address given by the Professor and Head, Regional Research Station, Vridhachalam**



**Book released during the soil health day and rabi campaign**



**Distribution of soil health card to the farmers**





**Taking pledge on soil health day in the programme**



**Technical lecture on soil health management**



**Demonstration on soil sampling**



**Demonstration on use of LCC for nitrogen fertilizer application in paddy**



**Demonstration on seed treatment with bio control agent and bio fertilizer in greengram  
Pradhan Mantri Fasal Bima Jojana Programme (PMFBY)**







**Exhibition inaugurated by the Honourable Industries Minister, Govt. of Tamil Nadu**



**The Programme Coordinator Dr.S. Kannan explained the activities of KVK and technologies**



**Lighting of Kuthuvilakku by VIPs**



**Welcome address by Programme Co-ordinator**



**Release of Technical bulletin on Crop Insurance**



**Release of Book on Cultivation of Minor millets**





**Special address by the Honorable Industries Minister, Govt. of Tamil Nadu, Mr. M.C. Sampath**



**Presidential address by Smt. G. Vijaya, District Collector, Cuddalore**



**Technical lecture on crop insurance by Mr. K. Jaganathan, Sr. Manager, Indian bank, Cuddalore**



**Technical lecture on crop insurance by Mr. D. Shankar, AGM, NABARD, Cuddalore**



**A view of farmers gathering**



**A view of exhibition stalls**



**Vocational Training**



**Mushroom production and value addition in mushroom**



**Value addition in vegetables and Minor millets**





**Value addition in Fruits and vegetables**

**Diagnostic Field Visit**



**Banana micro nutrient management - Chinnavadavadi**



**Brinjal ash weevil grub management - Thottikuppam**



**Mango Hoppers management - Adhivaraganallur**



**Marigold flower bud borer management - Adari**



**Tapioca micro nutrient management - Kolavai**



**Diagnostic field visit at Kasbha Alambadi on 20.12.2016**



**Maize cob damage - Mangalur**



**Pruning in cashew - Vegakollai**



**Swachhta Pakhawada**



**Taking up of Swachhta Sapath**



**Cleaning of KVK premises**



**Cleaning of school premises at Govt. Primary School at Mankulam Village**



**Skit by the School students on "Avoid plastic and save environment"**



**Cleaning of village roads at Vannankudikadu village**



**Demonstration of decompositions of Bio waste at Melmuliyakudi Village**



**Demonstration of decomposition of farm waste at Vannankudikadu village**



**Rally on Swachhta Bharath holding the slogans about**



**CLUSTER FRONT LINE DEMONSTRATIONS IN RABI OILSEEDS**



**Field visit and field day at Ayyan Kurinjipadi village**



**Spraying of Groundnut rich at Chinnakomatti village**



**Demonstration of Solar trap at Ayyan Kurinjipadi village**



**Demonstration of Solar trap at Karuppanchavadi village**

**CLUSTER FRONT LINE DEMONSTRATIONS IN RABI PULSES**



**Demonstration of pulse wonder at karnatham village**



**Field visit at Karnatham village**





**Field visit at Agaram village**



**Seed treatment with biofertilizer at Karnatham village**

**NADP-PULSES PROGRAMME**



**Lecture on Pulses production by Assistant Professor (Hort.), KVK, Vriddhachalam on 02.03.17 to Parangipettai block farmers**



**Lecture on Plant protection in pulses by Assistant Professor (Pl. Pathol), KVK, Vriddhachalam on 02.03.17 to Parangipettai block farmers**



**Lecture on Agronomic practices for pulses by Assistant Professor (SS&AC), KVK, Vriddhachalam on 02.03.17 to Parangipettai block farmers**



**Lecture by Asst. Director of Agriculture, Parangipettai on 02.03.17 to Parangipettai block farmers**





**Special Address by Shri. Gagandeep Sing Bedi, IAS, Agri. Production Commissioner, Govt. of TN during the training to Melbhuvanagiri block farmers on 08.03.17**



**Release of booklet on "Enhancing pulses production in delta region" by VIPs on 08.03.17 at KVK, Vriddhachalam during the training to Melbhuvanagiri block farmers**



**Address by the Director, TRRI, Aduthurai during the training to Melbhuvanagiri block farmers on 08.03.17**



**Address by the Registrar, TNAU, Coimbatore during the training to Melbhuvanagiri block farmers on 08.03.17**



**Address by the District Collector, Cuddalore during the training to Melbhuvanagiri block farmers on 08.03.17**



**Address by the Member of Legislative Assembly, Vriddhachalam during the training to Melbhuvanagiri block farmers on 08.03.17**