ANNUAL REPORT 2015-16

(FOR THE PERIOD APRIL 2015 TO MARCH 2016)

KRISHI VIGYAN KENDRA (CUDDALORE DISTRICT)

TAMIL NADU AGRICULTURAL UNIVERSITY

KRISHI VIGYAN KENDRA – CUDDALORE

TAMIL NADU, INDIA

ANNUAL REPORT (2015-16)

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		
Krishi Vigyan Kendra Vriddhachalam - 606 001 Cuddalore District Tamil Nadu	04143-238353	04143-238353	kvkvri@tnau.ac.in	www.kvkcuddalore.com www.tnau.ac.in

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

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

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

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

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 31st March 2016)

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	22.04.2016	Permanent	OBC
3	SMS (Plant Protection/ Agro Forestry)	Dr.K.Natarajan	Assistant Professor	M	Seed Science & Technology	Ph. D	15600-39100-7000(GP)	31660	16.04.16	Permanent	OBC
4	SMS (Agricultural Engineering)	Dr.T.Saravanan	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	OBC
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^2
2.	Under Demonstration Units	208.66 m^2
3.	Under Crops	16.1 ha
4.	Orchard/Agro-forestry	3.8 ha
5.	Others	Nil

1.7. Infrastructural Development (2015-16):Nil

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	-	-	-	-	-		
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	7714	Under repair
Mahindra Jeep (TN 31 L 7571)	2004	4,48,196	202310 km	Running
Motor cycle-Hero Honda (TN 31V 4421)	2009	48,255	36693 km	Running
Tractor - (New)	2011	4,87,500	1127 hrs	Running

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Pentax camera	1988	7,572	Condemned
Over head projector	2004	25,488	Condemned
Slide projector	2004	14,588	Condemned
Digital camera	2006	19,900	Good
LCD projector with accessories (2 nos)	2007	1,10,000	Good
Public address system	2008	68,941	Good
Projection screen (Manual)	2009	2,500	Good
Projection screen (Electrical)	2009	28860	Good

1.8. Details SAC meeting conducted in 2015-16

Date : 05.09.14

No. of participants : 22

Sl.No	Recommendations of SAC meeting	Action taken
1.	Need more number of interventions on the major crops like groundnut, rice and cashew	OFT on • Assessment of paddy varieties for samba season • Suitable submergence tolerance paddy variety for cuddalore district • Water saving technology in paddy FLD on • Demonstration Farmers participatory seed production of paddy variety CO 51 • MDU 6 for Kuruvai • Farmers participatory seed production of groundnut variety VRI 6, CO 7 under rainfed areas • Paired row planting in rainfed groundnut are proposed during the year 2015-16
2.	Ragi cultivation under SRI method	• OFT on Assessment of different ragi varieties for salt affected soil was conducted during the year 2014-15.
3	Conduct demonstrations on the machineries like groundnut harvester and stripper	• Training cum demonstration on use of groundnut harvester and stripper was conducted on 11.02.2015

4	Promoting moringa as a iron supplement as most of the women are deficient in iron	• Nutritional value of moringa was highlighted in the training on Hi tech Vegetable cultivation held on 17.9.14 at KVK, Vridhachalam and the farmers are facilitated with the information on cultivation aspects and availability of seeds
5	Crop based enterprises and major technologies during the interface meeting to be conducted in near future at this KVK.	• An Interaction meeting was conducted on issue based interventions with farmers, extension officials (All line departments) and scientists on 18.3.2015. Progressive farmers have participated and given suggestions for action plan preparation. • Interaction meeting was conducted for the sector of animal sciences and fisheries on 24.2.2015 and suggestions were invited for action plan preparation.
6	Conduct of possible OFTs and FLDs in KVK campus itself	• In 2014-15, demonstration of Co (GB) 14 lab lab was taken up as a demonstration in the KVK farm. • FLD on demonstration of MDU 1 black gram was taken up as demonstration during the year 2015-16.
7	More trainings have to be imparted on high density planting in cashew to the farmers of this district	• A training on hi tech cashew cultivation was conducted at KVK, Vridhachalam on 13.8.2014 and 56 farmers participated in the training.
	Remarks from farmer members	
8	Requested to form vegetable commodity group	• Vegetable commodity group was started with the technical guidance of KVK at Gunamanagalam village of Kattumannar koil Taluk during the year 2014-15 and the group got registered as "Cuddalore Districr Vegetable Growers Association"
9	Requested training on weed management techniques in direct seeded paddy crop.	• An OFT on Assessment of effective weed control measures in direct seeded paddy is taken in the year 2014-15. Based on OFT, it was found that bispyribac (25 gai/ha) + azimsulfuron (17.5 g ai/ha)-15-25 DAS or pretilachlor -0.45 kg /ha-3DAS, azimsulfuron 50 DF-35 g/ha-20 DAS and hand weeding -45 DAS were effective in controlling weed in direct seeded paddy. • Besides, training on samba paddy cultivation was given to the farmers on 15.10.14, in which, weed management in direct seeded paddy is taken to the trainees.
10	Requested to provide advanced training on value addition and products packaging methods.	• More number of training was proposed during 2015-16 for value addition and products packaging methods. A training calendar for the year 2015-16 was prepared and displayed in the KVK notice board and also published in the newspaper
11	Requested for trainings on cashew apple and jack fruit.	• Trainings on value addition in cashew apple and jack fruit will be provided during the ensuing season.

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 systems
3	Rainfed agricultural systems
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	Agro-climatic Zone	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	Characteristics
AES-I	Sandy Clay loam, Medium texture, Normal Rainfall, Well irrigated area	Diversified agriculture
AES-II	Clay loam, Heavy texture, Normal Rainfall, Delta area	Paddy areas
AES-III	Sandy clay loam, Medium to light texture, Rainfed area.	Rainfed agriculture

2.3 Soil type/s

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
	Total		**367791**

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

S. No	Crop	Area (ha)	Productivity (Kg/ha)	Production (Metric tons)
Agricultural crops				
Cereals				
1	Rice	133936	Paddy 7411 Rice 2039	6.70 (Rice)
Millets				
1	Sorghum	44	2100	0.001
2	Cumbu	2918	4635	0.14
3	Maize	23157	8166	1.82
4	Varagu	1059	2420	0..03
Pulses				
1	Redgram	815	1140	0.01
2	Blackgram	52366	846	0.45
3	Greengram	11781	710	0.09
Oilseeds				
1	Groundnut	10523	2741	0.29
2	Gingelly	4737	479	0.23
Cash crops				
1	Cotton	6905	1860	0.13
2	Sugarcane	25773	110 (Mt)	28.35
Horticultural crops (2011-12)				
Fruits/plantation crops				
1	Cashew nut	32261	552.9	178371
2	Banana	4250.83	97421	23571.6
3	Jack	664.91	-	4930
4	Guava	570.405	403	658.86
5	Mango	494.935	2277	4438.09
Vegetables/spices				
1	Brinjal	172.385	2542	16637.73
2	Chillies	128.170	45	436.55
3	Bhendi	153.12	757	8699.58
4	Tapioca	3252.010	101408	29790.82
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,2014

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April 2015	145	35.2	24.4	78.2
May 2015	92.2	36.5	26.6	78.0
June 2015	156.2	35.9	26.5	79.0
July 2015	198.4	36.7	26.0	77.9
August 2015	103.4	35.9	25.8	80.1
September 2015	57.7	36.3	25.6	77.9
October 2015	107.8	33.5	24.6	83.2
November 2015	572.4	29.9	23.4	91.1
December 2015	361.4	29.9	22.9	86.0
January 2016	-	31.3	21.2	84.4
February 2016	-	33.7	22.1	84.1
March 2016				
Total/Mean				

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

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2015-16)

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

Category	Area	Production	Productivity
Fish			--
Marine	57.5 km	426735	477943.69
Inland	45 km	184753.44	103122.52
Prawn	--	--	--
Scampi	--	--	--
Shrimp	--	--	--

* Source: Handbook of Cuddalore district, O/o the Deputy Director, Statistics, Cuddalore

2.7 District profile has been **Updated** for 2014-15 Yes / No: Yes

2.8 Details of Operational area / Villages

Sl. No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Chidambaram	Parangipettai	B.Muttlur Kothattai Parangipettai, Chinnakumati Periyakumatti	3 years	Paddy blackgram groundnut vegetables livestock Inland aquaculture	Lack of awareness about newly released high yielding varieties	FLD on Demonstration and farmers participatory seed production of groundnut variety VRI 6 of Cuddalore district
		Parangipettai	Keezhanuvampattu	1 year	Paddy Blackgram Groundnut Vegetables	Lack of knowledge about short duration long slender variety	FLD on Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district
		Melbhuvanagiri	Chinnakumatti Kothattai Sillankuppam	1 year	Paddy Blackgram Groundnut Watermelon	Lack of awareness about the fertlization and plant protection measures Yield loss due to pest and diseases	FLD on Demonstration of ICM in water melon
		Melbhuvanagiri	Agaramalampadi	1 year	Paddy Blackgram Sugarcane	Unjudicious application of water leads to wastage of water. Lack of suitable technology for AWD irrigation method	OFT on Assessment of water saving techniques in paddy
2.	Cuddalore	Cuddalore	Kuruvinatham	1 year	Paddy blackgram	Non availability of suitable varieties for flood prone area Crop failure or heavy yield reduction due to water logging situation	OFT on Assessment of Suitable submergence tolerance paddy variety for Cuddalore district
		Cuddalore	Nellikuppam Thirumanikuzhi Gunamangalam	1 year	Paddy Sugarcane	Lack of awareness about the promising quality rice variety for Kuruvai season	FLD on Demonstration and farmers participatory seed production of paddy variety CO 51 of Cuddalore district

3.	Kurinjipadi	Kurinjipadi	Thambipettai	1 year	Paddy Black gram	Non availability of suitable varieties for flood prone area Crop failure or heavy yield reduction due to water logging situation	OFT on Assessment of Suitable submergence tolerance paddy variety for Cuddalore district
		Kurinjipadi	Annukampattu	1 year	Paddy Black gram Groundnut	Lack of knowledge about short duration long slender variety	FLD on Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district
		Kurinjipadi	Annukampattu	1 year	Paddy Black gram Groundnut	Micronutrient deficiencies leads to lower yield in oil seed crops	FLD on Demonstration of TNAU MN mixture in ground nut
4.	Vridhachalam	Kammapuram	Ookolapakkam	1 year	Paddy Black gram Vegetables	Non availability of suitable varieties for flood prone area Crop failure or heavy yield reduction due to water logging situation	OFT on Assessment of Suitable submergence tolerance paddy variety for Cuddalore district
		Kammapuram	Keezhavaliyamadevi	1 year	Paddy Black gram Groundnut Vegetables	Lack of knowledge about short duration long slender variety	FLD on Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district
			K.Mavidangal	3 years	Paddy Groundnut Sugarcane	Lack of awareness about latest, high yielding variety in ground nut	FLD on Demonstration of Ground nut variety Dharani
		Vridhachalam	Agaram Karunatham	1 year	Sorghum Black gram Vegetables	Lack awareness about newly released high yielding varieties in blackgram	FLD on Demonstration of Black gram MDU 1
		Vridhachalam	Rajendrapattinam	1 year	Paddy Blackgram	Lack awareness about newly released high yielding varieties in blackgram	FLD on Demonstration of Black gram MDU 1
		Vridhachalam	Rajendrapattinam	1 year	Paddy Black gram	Low yield of milk Low availability of fodder	FLD on Demonstration of fodder crops
		Vridhachalam	Puliyur Manavalanallur	3 years	Paddy Sugarcane	Unhealthy seedlings due to nutrient deficiency High mortality rate, yield reduction	FLD on Demonstration of enriched coco pith as a medium for portray in Sugarcane seedling

		Vridhachalam	Kavanai Sathakudal Sitherikuppam	1 year	Paddy Black gram Sugarcane Vegetables	Yield loss from shoot and fruit borer Indiscriminate use of chemicals for control of the borer Lack of awareness about the use of bio management strategies	FLD on Demonstration of IPM in for shoot and fruit borer in brinjal
		Vridhachalam	Rajendrapattinam	1 year	Paddy Blackgram	Yield loss due to pest and diseases Lack of awareness about the egg parasites for management of leaf folder and stem borer Huge chemicals used for control of the pest and disease	FLD on Demonstration of IPM for Pest and disease in samba paddy
		Vridhachalam	Irrusalakuppam Puliyur	1 year	Paddy Blackgram Groundnut Vegetables	Lack of knowledge about short duration long slender variety	FLD on Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district
		Vridhachalam	Chinnavadavadi Kuppanatham Pudukoorapettai Palayapattinam K.Mavidangal	5 years	Paddy Groundnut Sugarcane	Lack of awareness about latest, high yielding variety in ground nut	FLD on Demonstration of Ground nut variety Dharani
		Vridhachalam	Rajendrapattinam Sathakudal Alachikudi	5 years	Paddy Black gram Sugarcane	Unjudicious application of water leads to wastage of water. Lack of suitable technology for AWD irrigation method	OFT on Assessment of water saving techniques in paddy
		Vridhachalam	Aladi Alichikudi Vridhachalam	1 year	-	Poor nutritional status of family Increase the cost of vegetables Lack of utilization of unused water. Lack of knowledge in multi nutritive value of vegetables and greens	FLD on Demonstration of Nutri-herbo Garden
		Vridhachalam	Sitherikuppam Kavanai	1 year	Paddy Black gram Sugarcane Vegetables	Lack of awareness about high yielding new variety	FLD on Demonstration of new Cluster bean variety MDU 1

		Vridhachalm	Chinnavadavadi	1 year	Banana Groundnut Paddy Black gram	Poor bunch quality fetches lower price in market	FLD on Demonstration of IIHR bunch nutrition
		Vridhachalam	Pudukooraipettai Kuppanatham K.Mavadangal Ponneri Thoravallur	1 year	Paddy Groundnut Blackgram	Micronutrient deficiencies leads to lower yield in oil seed crops	FLD on Demonstration of TNAU MN mixture in ground nut
		Vridhachalam	Kuppanatham Pudukooraipettai Thoravallur	1 year	Paddy Black gram Groundnut Sugarcane Maize	Lower productivity due to unbalanced and indiscriminate usage of fertilizers	OFT on Assessment of nutriseed pack technology in maize
		Vridhachalam	Kavanai Sathakudal	3 years	Paddy Groundnut Sugarcane Black gram	Unjudicious application of water leads to wastage of water. Lack of suitable technology for AWD irrigation method	OFT on Assessment of water saving techniques in paddy
5.	Panruti	Annagrammam	Elimedu	1 year	Paddy Sugarcane Vegetables	Lack of awareness about the promising quality rice variety for Kuruvai season	FLD on Demonstration and farmers participatory seed production of paddy variety CO 51 of Cuddalore district
		Panruti	Siruthondamadevi Vegakollai	1 year	Vegetables Paddy Black gram	Lack of awareness about high yielding new variety	FLD on Demonstration of new Cluster bean variety MDU 1
6.	Kattumannarkoil	Kattumannarkoil	Srineduncheri Ambujavallipettai	1 year	Paddy Sugarcane	Lack of awareness about the promising quality rice variety for Kuruvai season	FLD on Demonstration and farmers participatory seed production of paddy variety CO 51 of Cuddalore district
		Kattumannarkoil	Ambujavallipettai	1 year	Paddy Black gram Sugarcane	Samba paddy is frequently affected by Pest and disease Existing variety is more vulnerable to pest and disease	OFT on Assessment of varieties for samba paddy
		Kattumannarkoil	Srineduncheri	2 years	Paddy Sugarcane Gingelly	Unhealthy seedlings due to nutrient deficiency High mortality rate, yield reduction	FLD on Demonstration of enriched coco pith as a medium for portray in Sugarcane seedling

		Kattumannarkoil	Adivraganallur Melpuliyankudi Nagarapadi Gunamangalam	3 years	Paddy	Unjudicious application of water leads to wastage of water. Lack of suitable technology for AWD irrigation method	OFT on Assessment of water saving techniques in paddy
		Kumarachi	Vadakkumavadi	1 year	Paddy Black gram Groundnut Vegetables	Lack of knowledge about short duration long slender variety	FLD on Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district
7.	Thttakudi	Mangalore	Mangulam	1 year	Maize, Groundnut Paddy Blackgram	Poor plant population is maintained under rainfed areas-Yield reduction. Inadequate moisture conservation –yield loss	FLD on Demonstration of paired planting in rain fed ground nut
		Mangalore	Kazhuthur Adari	1 year	Sorghum, Varagu Paddy Maize	Poor yield and Lack of knowledge in value addition	FLD on Demonstration of varagu CO 3
		Nallur	Kattumayilur	1 year	Sorghum, Varagu Paddy Maize	Incidence of smut Poor grain yield	OFT on Assessment of sorghum varieties for Cuddalore district
		Mangalore	Mangulam	1 year	Paddy Cotton Maize	Micronutrient deficiencies leads to lower yield in oil seed crops	FLD on Demonstration of TNAU MN mixture in ground nut
		Mangalore	Kolavai Adari	1 year	Maize Cotton Varagu Sorghum	Lower productivity due to unbalanced and indiscriminate usage of fertilizers	OFT on Assessment of nutriseed pack technology in maize

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
5	5	32	32	16	16	165	165

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
-	180	-	2411	-	649	-	4005

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	Blackgram MDU 1 seeds: 116 kg	-	Cahew grafts: 3282 Nos
			Brinjal seedlings:14797 Nos
			Teak:182 Nos

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	Tellicherry goat: 5 Nos	-	Vermicompost : 1160 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
01	Varietal evaluation	Paddy	Yield loss from leaf folder, stem borer, sheath blight and blast in samba paddy	Assessment of varieties for samba paddy	-	2	-	3	-	Seeds of TKM 13 : 108 kg Co 50 : 108 kg	-	-	-	
02	Varietal evaluation	Paddy	Non availability of submergence tolerance variety	Assessment of Suitable submergence tolerance paddy variety for Cuddalore district	-	4	-	1	-	CR 1009 sub 1 : 150 kg Swarna sub 1 : 150 kg	-	-	-	*Pseudomonas* : 12 kg
03	Crop management	Paddy	Excessive use of irrigation water Suitable technologies for adopting AWD is not available.	Assessment of water saving technologies in paddy	-	3	-	2		-	-		-	*T.viridi*: 10 kg *Pseudomonas* : 10 kg TNAU MN mixture for paddy: 50 kg

04	Crop management	Maize	Lower productivity due to unbalanced and indiscriminate usage of fertilizers	Assessment of nutriseed pack technology in maize	-	3	-	2		Maize hybrid Co 6 seed 16kg Maize nutriseed pack: 44,000 Nos.	-	-	-	-
05	Varietal evaluation	Sorghum	Incidence of smut and grain mould, Poor grain yield	Assessment of sorghum varieties for Cuddalore district		3	-	1	-	CO 30 seeds 15 kg DSV 7 seeds 15 kg	-	-	-	-
06	Seed production	Paddy	Non availability of quality seeds for further multiplication	-	Demonstration and farmers participatory seed production of paddy variety CO 51 of Cuddalore district	3	2	1	2	CO 51 seeds: 300 kg	-	-	-	*Pseudomonas* : 15 kg
07	Varietal demonstration	Paddy	Lack of knowledge about short duration long slender rice variety	-	FLD on Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district	2	-	2	1	Paddy MDU 6 seeds 240 kg	-	-	-	-

08	Crop protection	Paddy	Yield loss due to pest and diseases Lack of awareness about the egg parasites for management of leaf folder and stem borer Huge chemicals used for control of the pest and disease	-	Demonstration of IPM for Pest and disease in samba paddy	3	-	2	1	-				*Pseudomonas*- 10 kg Pheromone trap-50 Nos Yellow sticky trap -50 Nos
09	Varietal demonstration	Blackgram	Average yield of existing varieties(VBN 3,4, T9) are low, more prone to YMV	-	Demonstration of Blackgram MDU 1 and its value addition	2	-	1	1	Balck gram MDU 1 seeds: 100 kg				
10	Seed production	Groundnut	Local varieties – VRI 2 Average yield – 2060 kg/ha Lack of knowledge about high yielding newly released variety (VRI 6 average yield – 2600kr/ha)		Demonstration and farmers participatory seed production of groundnut variety VRI 6 of Cuddalore district	2	3	2	1	VRI 6 pods: 200 kg				*Trichoderma viridi: 6 kg*

11	Crop management	Ground nut	Poor plant population under rainfed areas leads to yield reduction(30-40%) Inadequate moisture conservation leads to yield loss		Demonstration of paired row planting method in rain fed ground nut	2	2	2	2	VRI 2 pods : 500 kg	-	-	-	*Trichoderma viridi: 10 kg Rhizobium : 5 kg*
12	Crop management	Ground nut	Lack of awareness about latest, high yielding variety in ground nut	-	Demonstration of Ground nut variety Dharani	2	-	2	-	Dharani pods: 300 kg				
13	Nutrient management	Ground nut	Micronutrient deficiencies leads to lower yield in oil seed crops	-	Demonstration of TNAU MN mixture in ground nut	2	-	2	-	-	-	-	-	TNAU MN mixture: 125 kg
14	Varietal demonstration	Cluster bean	Lack of awareness about high yielding new variety	-	Demonstration of new Cluster bean variety MDU 1	2	-	2	-				-	

15	Plant protection	Brinjal	Yield loss from shoot and fruit borer Indiscriminate use of chemicals for control of the borer Lack of awareness about the use of bio management strategies	-	Demonstration of eco friendly pest management in brinjal	2	-	1	1					*Pseudomonas*- 5 kg Pheromone trap-25 Nos Yellow sticky trap -25 Nos Egg parasites: 20cc
16	Crop management	Watermelon	Lack of awareness about the fertlization and plant protection measures Yield loss due to pest and diseases	-	Demonstration of ICM in water melon	2	-	2	-					
17	Crop management	Banana	Poor bunch quality fetches lower price in market	-	Demonstration of IIHR bunch nutrition in banana	2	-	2	-					
18	Crop management	Sugarcane	Unhealthy seedlings due to nutrient deficiency Mortality rate of seedling is higher Final yield reduction	-	Demonstration of enriched cocopith as a medium for protray sugarcane seedling	2	-	2	-	Seedlings: 5000 Nos				Cocopith: 200 kg

		Major Vegetables - Tomato, brinjal, chillies, bittergourds, moringa, bhendi , snakegourd , bottle gourd	Poor nutritional status of family Increase the cost of vegetables Lack of utilization of unused water Lack of knowledge in multi nutritive value of vegetables and greens Intake of vegetables with toxic residues of pesticides which are hazardous to health		Demonstration of Nutri-herbo Garden in schools	2	-	-	-					
20	Varietal demonstration	Varagu	Low yield, Price instability	-	Demonstration of varagu CO 3 for Cuddalore district	3	-	1	-	10 of Varagu Co 3 seeds				
21	Varietal demonstration	Cumbu napier, fodder sorghum, fodder cow pea	Low yield of milk Low availability of fodder	-	Demonstration of fodder crops	2	-	-	-	CO(CN) 4: 500 slips CO(FS) : 200 g Velimasal: 800 g Cowpea: 200 g				

3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/enterprise	No.of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1	Assessment of varieties for samba paddy	TNAU Coimbatore Bapatla	Paddy	6	-	5	Demonstration of IPM practices Demonstration of INM practices
2	Assessment of Suitable submergence tolerance paddy variety for Cuddalore district	TNAU CRRI Cuttack	Paddy	6	-	5	Demonstration of drum seeder sowing methods Demonstration of machine transplanting in paddy
3	Assessment of water saving technologies in paddy	TNAU Coimbatore IRRI, Philippines	Paddy	10	-		Training on use of pani pipe.
4	Assessment of nutriseed pack technology in maize	TNAU Coimbatore	Maize	5	-	5	Demonstration of planting technique Demonstration of IPM for maize stem borer
5	Assessment of sorghum varieties for Cuddalore district	TNAU Coimbatore UAS, Dharwad	Sorghum	5	-	4	Demonstration of seed hardening technique using KH_2PO_4 Created awareness on sorghum poisoning Demonstration of value added products from sorghum
6	Demonstration and farmers participatory seed production of paddy variety CO 51 of Cuddalore district	TNAU Coimbatore	Paddy	-	15	6	Demonstration of SRI method Demonstration of machine transplanting in paddy Demonstration of seed treatments methods Demonstration of rouging operation for seed production
7	FLD on Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district	TNAU Coimbatore	Paddy	-	10	4	Demonstration of IPM and INM in paddy Training on Cultivation aspects
8	Demonstration of IPM for Pest and disease in samba paddy	TNAU Coimbatore	Paddy	-	10	5	Demonstration of Seed treatment in paddy IPM practices Pest and disease identification Pheromone trap installation and identification of pest Release of egg parasitoids

9	Demonstration of Blackgram MDU 1 and its value addition	TNAU Coimbatore	Blackgram	-	12	3	Demonstration of seeds treatment in blackgram Demonstration of foliar nutrition
10	Demonstration and farmers participatory seed production of groundnut variety VRI 6 of Cuddalore district	TNAU Coimbatore	Groundnut	-	6	7	Demonstration of seed treatments methods Demonstration of groundnut rich and gypsum application Demonstration of post emergence herbicide application Demonstration of rouging operation for seed production
11	Demonstration of paired row planting method in rain fed ground nut	DOR, Hyderabad	Groundnut	-	10	6	Demonstration of pair row planting methods Demonstration of seed treatment methods Demonstration of groundnut rich and gypsum application Demonstration of post emergence herbicide application Demonstration of rouging operation for seed production
12	Demonstration of Ground nut variety Dharani	TNAU Coimbatore	Groundnut	-	6	2	Training on production technologies of groundnut
13	Demonstration of TNAU MN mixture in ground nut	TNAU Coimbatore	Groundnut	-	25	2	Demonstration on application of TNAU MN mixture Training on pest and disease management
14	Demonstration of new Cluster bean variety MDU 1	TNAU Coimbatore	Clusterbean	-	10	2	Training on production technologies of Cluster bean
15	Demonstration of eco friendly pest management in brinjal	TNAU Coimbatore	Brinjal	-	10	3	Demonstration of Seed treatment in paddy IPM practices Pest and disease identification Pheromone trap installation and identification of pest Release of egg parasitoids
16	Demonstration of ICM in water melon	TNAU Coimbatore	Watermelon	-	10	4	Training on production technologies of watermelon
17	Demonstration of IIHR bunch nutrition in banana	IIHR Bengaluru	Banana	-	12	4	Demonstration of bunch feeding of nutrients

18	Demonstration of enriched cocopith as a medium for protray sugarcane seedling	TNAU Coimbatore	Sugarcane	-	10	4	Demonstration of using enriched cocopith as medium for raising sugarcane seedlings in portray
19	Demonstration of Nutri- herbo Garden in schools	TNAU Coimbatore	Nutri herbal garden	-	10	2	Training cum demonstration on establishment of nutri herbo garden
20	Demonstration of varagu CO 3 for Cuddalore district	TNAU Coimbatore	Varagu	-	10	4	Imparted training on cultivation aspects of Varagu.
21	Demonstration of fodder crops	TNAU Coimbatore	Fodder crops	-	5	2	Highlighted the importance of cultivation of mixed fodder crops. Training on production technologies of fodder crops

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**
22	4	6	0	116	8	31	2	**2062**	**112**	**242**	**28**	**3344**	**198**	**421**	**42**

PART IV - ON FARM TRIAL

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

Thematic areas	**Cereals**	**Oilseeds**	**Pulses**	**Commercial Crops**	**Vegetables**	**Fruits**	**Flower**	**Plantation crops**	**Tuber Crops**	**TOTAL**
Varietal Evaluation	3									3
Integrated Crop Management										
Nutrient management	1									1
Resource Conservation Technology	1									1
Others										-
Total	**5**									**5**

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 varieties for samba paddy	6	6	2.2
	Paddy	Assessment of Suitable submergence tolerance paddy variety for Cuddalore district	6	6	2.2
	Sorghum	Assessment of sorghum varieties for Cuddalore district	5	5	2
Nutrient Management	Maize	Assessment of nutriseed pack technology in maize	5	5	0.8
Resource Conservation	Paddy	Assessment of water saving technologies in paddy	10	10	4
Total			32	32	11.2

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.C1. Results of Technologies Assessed

Results of On Farm Trial

OFT 1: Assessment of varieties for samba paddy

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Paddy	Irrigated	In Samba season, pest and disease problem is serious and cause yield loss of 20%	Assessment of varieties for samba season	6	TO1 – Farmer's practice- BPT 5204 TO2- CO 50 paddy variety TO3- TKM 13 paddy variety	Leaf folder Stem borer Blast incidence 1000 grain weight Grain yield (q/ha) Net return (Rs)	1.00 1.03 0.29 15.02 78.18 74529	Among the varieties assessed, Co 50 has given and recorded more yield and less incidence of pest and disease and net return is also more due to more marketable price for the variety TKM 13	Incidence of leaf folder , stem borer and blast disease is low when compared to ruling BPT 5204 variety.	No	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
TO1 – Farmer's practice- BPT 5204	Bapatla Agricultural College, Bapatla	6756	kg/ha	64295	1.36
TO2- CO 50 paddy variety	TNAU 2011	7818	kg/ha	70514	1.59
TO3- TKM 13 paddy variety	TNAU 2015	7671	kg/ha	74529	1.70

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

1.	**Title of Technology Assessed**	:	Assessment of varieties for samba season paddy		
2.	**Problem Definition**	:	• In samba season, pest and disease problem is serious and cause • Existing varieties are more susceptible for the incidence		
3.	**Details of technologies selected for assessment**	:	Technology option 1 - Farmer's practice- BPT 5204	Technology option 2- Co 50	Technology option 3: TKM 13
4.	**Source of technology**	:	Bapatla Agricultural College	TNAU 2010	TNAU 2015
5.	**Production system and thematic area**	:	Varietal evaluation		
6.	**Performance of the Technology with performance indicators**	:	Among the varieties assessed, Co 50 has given more yield (78.18 q/ha) and recorded less incidence of pest and disease. TKM 13 also given more yield (76.71 q/ha) when compared to ruling variety (67.56 q/ha). The net return is more due to more marketable price for the TKM 13 (Rs 15.5 per kg). TKM 13 had leaf folder incidence of 1.00 % leaf damage, stem borer of 1.03 % dead heart symptoms, blast of 0.29 lesion per leaf and bacterial leaf blight of 0.08 leaves infected per m^2.		
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
			40%	60%	60%	40%	50%
8.	**Final recommendation for micro level situation**	:	-				
9.	**Constraints identified and feedback for research**	:	Nil				
10.	**Process of farmers participation and their reaction**	:	The farmers have realized the use and effect of mitigation practices on crop growth and yield. The farmers were fully aware about benefits of the mitigation strategies tested in the OFT.				

Pest and disease incidence in the varieties assessed in the OFT

Sl.No	Varieties	Leaf folder incidence (% leaf damage)	Stem borer incidence (% dead heart symptoms)	Blast incidence (Number of lesion/leaf)	BLB incidence (No of infected leaves/ m^2)
1	Check	4.48	8.50	2.62	5.75
2	CO 50	1.17	1.77	0.67	0.17
3	TKM 13	1.00	1.03	0.29	0.08

- Leaf folder: Per cent leaf damage assessed during tillering to panicle initiation stage at 10 days interval. Four leaves selected in each hill of 20 hills randomly selected in the field.
- Stem borer incidence: Dead heart symptoms measured for 50 hill and per cent was calculated.
- Blast incidence: No of lesions produced by blast disease was measured per leaf from 100 leaves at 10 days interval from tillering to panicle initiation.
- BLB incidence: No of infected leaves per m^2 and the measurement was taken in five places in the field from tillering to panicle initiation

OFT 2: Assessment of Suitable submergence tolerance paddy 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
Paddy	Irrigated	Non availability of suitable submergence variety	Assessment of suitable submergence tolerance paddy variety for Cuddalore district	6	TO_1 – Farmers' practice – CR 1009 TO_2 – CR 1009 sub 1 TO_3 – Swarna sub 1	No. of tillers /plant No. of grains/panicle Grain Yield q/ha	23 129 34.8 (Results on the TO_3 – the best technology alone given here)	Planting of CR 1009 sub 1 while flooding in 15 days gives higher yield than Swarna sub 1 and CR 1009	CR 1009 sub 1 and Swarna-Sub1 as a 'wonder variety', with high degree of survival under submergence, good grain quality and taste and lower fertilizer requirement. Require combining flash-flood and drought Tolerance variety . Quite often due to uneven distribution of rainfall, both droughts and floods occur in the same area during a cropping season.	No	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 – CR1009)	TNAU	2.71	t/ha	6219	1.03
Technology option 2: CR 1009 Sub 1	TNAU, 2015	3.48	t/ha	13040	1.30
Technology option 3: Swarna sub 1	CRRI 2009	3.40	t/ha	11495	1.26

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

1.	**Title of Technology Assessed**	:	Assessment of suitable submergence tolerance paddy variety for Cuddalore district		
2.	**Problem Definition**	:	• Non availability of suitable submergence variety		
3.	**Details of technologies selected for assessment**	:	Technology option 1 CR 1009	Technology option 2 CR 1009 sub 1	Technology option 3: Swarna sub 1
4.	**Source of technology**	:	Farmers' practice TNAU	TNAU, 2015	CRRI, 2009
5.	**Production system and thematic area**	:	Crop Improvement		
6.	**Performance of the Technology with performance indicators**	:	The growth and yield attributes were on par with both the sub 1 varieties. Among them, CR 1009 sub 1 recorded highest yield of 3.48 t/ha (28.4 % increased yield over control). The yield attributing characters viz., No. of tillers, No. of grains per panicle and 1000 seed weight were on par with both the sub 1 varieties.		
7.	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques**		Seed treatment	SRI planting	Seed drill & Machine transpalnting / Post harvest technology
			85 %	80 %	75% / 65%
8.	**Final recommendation for micro level situation**	:	Transplanting of CR 1009 sub 1 and Swarna sub 1 paddy variety is recommended for flood affected areas especially it will tolerate upto 15 days of flooding		
9.	**Constraints identified and feedback for research**	:	❖ Combining flash-flood and stagnant flooding tolerance. Most rainfed lowlands areas have both of these problems and varieties having tolerance to both stresses could be a way to enhance and stabilize production. ❖ Require combining flash-flood and drought Tolerance variety . Quite often due to uneven distribution of rainfall, both droughts and floods occur in the same area during a cropping season. ❖ Combining flash-flood and salinity tolerance for coastal areas. Since coastal areas could face both flooding and salinity simultaneously, combining tolerances to both of these stresses could be beneficial to the farmers of the coastal regions.		
10.	**Process of farmers participation and their reaction**	:	❖ The farmers have realized the variety is suitable for flood affected areas of Cuddalore district especially during North east monsoon. ❖ Establishment of a network of small and medium seed growers in rainfed areas for the supply of locally available quality seed, and also to create the awareness about new varieties among the farmers		

OFT 3: Assessment of water saving technologies in paddy

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Paddy	Low land transplanted	Excessive use of irrigation water Suitable technology for adopting Alternate wetting and drying (AWD) is not available.	Assessment of water saving technology for paddy	10	TO_1 – Farmers' practice (Flood irrigation) TO_2 - Cyclic submergence TO_3 – Alternate wetting and drying through Pani pipe	No. of tillers/m^2 No. of panicle/ hill Yield (kg/ha) No. of irrigations (Results on the TO_3 – the best technology alone given here)	29.4 20.9 5580 17	Irrigation given by alternate wetting and drying method through pani pipe to low land transplanted paddy not only increases the yield but also saved the number of irrigations given.	Pani pipe is the simple and easy tool to identify the correct time of irrigation has to be given for paddy	No	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 - Flood irrigation)	-	5150	kg/ha	19343	1.31
Technology option 2: Cyclic submergence	Tamil Nadu Crop production Guide ,2012	5330	kg/ha	24641	1.41
Technology option 3: – Alternate wetting and	IRRI,2012	5580	kg/ha	30841	1.53

drying through Pani pipe					

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

1.	**Title of Technology Assessed**	:	Assessment of water saving technology in paddy		
2.	**Problem Definition**	:	• Excessive use of irrigation water • Suitable technology for adopting Alternate wetting and drying (AWD) is not available		
3.	**Details of technologies selected for assessment**	:	Technology option 1 Farmers' practice-Flood irrigation	Technology option 2 Cyclic submergence	Technology option 3: Alternate wetting and drying through Pani pipe
4.	**Source of technology**	:	-	Tamil Nadu Crop production Guide ,2012	IRRI,2012
5.	**Production system and thematic area**	:	Crop management		
6.	**Performance of the Technology with performance indicators**	:	Irrigation management for low land transplanted paddy by alternate wetting and drying method (AWD) using pani pipe is performing better than the other methods .Irrigation by AWD increases the yield by 8.3 and 4.6 percent than the flooding and cyclic submergence and also it saves the irrigation by 29.1 and 16.7 per cent over farmers practice and cyclic submergence.		
7.	**Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques**		Nursery raising / 50%	Transplanting / 65%	Fertilizer application / 70%	Irrigation management / 90%	Plant protection measures / 75%
8.	**Final recommendation for micro level situation**	:	Irrigation by alternate wetting and drying (AWD) method by using pani pipe is ideal method for low land transplanted paddy		
9.	**Constraints identified and feedback for research**	:	Nil		
10.	**Process of farmers participation and their reaction**	:	The farmers were realized the benefit of AWD method of irrigation in terms of increase in yield and saving of irrigation water.		

OFT 4: Assessment of nutriseed pack technology in maize

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
Maize	Irrigated	Lower productivity due to unbalanced and indiscriminate usage of fertilizer	Assessment of nutriseed pack technology in maize	5	TO_1 – Farmers' practice TO_2 – Application of recommended dose of fertilizers (250:75:75 kg/ha) by surface soil application TO_3 – Nutriseed pack technology	No. of grains/cob Cob length (cm) Grain yield q/ha	547.5 20.26 74.00	Cob length and number of grains per cob were recorded higher and grain yield also increased due to continuous release of nutrient upto the maturity stage	Uniform crop growth was observed in maize nutri seed pack trials Complete cob filling was observed 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_1 – Farmers' practice	--	65.44	q/ha	23984	1.50
TO_2 – Application of recommended dose of fertilizers (250:75:75 kg/ha)	TNAU(CPG 2012)	71.92	q/ha	44588	1.80

by surface soil application					
TO_3 – Nutriseed pack technology	TNAU (2014)	74.00	q/ha	59500	2.01

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

<table>
<tr><td>1.</td><td>Title of Technology Assessed</td><td>:</td><td colspan="4">Assessment of nutriseed pack technology in maize</td></tr>
<tr><td>2.</td><td>Problem Definition</td><td>:</td><td colspan="4">• Lower productivity due to unbalanced and indiscriminate usage of fertilizer</td></tr>
<tr><td>3.</td><td>Details of technologies selected for assessment</td><td>:</td><td>Technology option 1

-</td><td>Technology option 2

Recommended dose of fertilizer</td><td colspan="2">Technology option 3

Nutriseed pack technology</td></tr>
<tr><td>4.</td><td>Source of technology</td><td>:</td><td>Farmers' practice</td><td>TNAU (CPG 2012)</td><td colspan="2">TNAU (2014)</td></tr>
<tr><td>5.</td><td>Production system and thematic area</td><td>:</td><td colspan="4">Nutrient management</td></tr>
<tr><td>6.</td><td>Performance of the Technology with performance indicators</td><td>:</td><td colspan="4">➢ Among the technologies, Nutriseed pack technology has increased cob length, number of grains per cob and grain yield per ha (13.08% increased yield over control). However, recommended dose of fertilizer has also increased the yield (9.90% increased yield over control)
➢ Uniform crop growth was observed in maize nutri seed pack trials
➢ Continuous release of nutrient upto the maturity stage was observed in nutri seed pack</td></tr>
<tr><td rowspan="2">7.</td><td rowspan="2">Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</td><td rowspan="2"></td><td>Seed sowing</td><td>Agronomy practice</td><td>INM</td><td>IPM</td></tr>
<tr><td>60%</td><td>80%</td><td>60%</td><td>50%</td></tr>
<tr><td>8.</td><td>Final recommendation for micro level situation</td><td>:</td><td colspan="4">Nutriseed pack technology in maize is useful for effective cultivation, since uniform maintenance of plant population and more yield is achieved</td></tr>
<tr><td>9.</td><td>Constraints identified and feedback for research</td><td>:</td><td colspan="4">Nil</td></tr>
<tr><td>10.</td><td>Process of farmers participation and their reaction</td><td>:</td><td colspan="4">The farmers have realized the nutriseed pack technology in maize by observing more yield and uniform population. Besides the farmers also realized the fertilizer usage in the nutriseed pack technology</td></tr>
</table>

OFT 5: Assessment of suitable sorghum 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
Sorghum	Irrigated	Incidence of smut and grain mould, Poor grain yield	Assessment of sorghum varieties for Cuddalore district	5	TO_1 – Farmers' practice- local varieties TO_2 – Sorghum CO 30 TO_3 – Sorghum DSV 27	Yield: Plant height Length of ear head: Shoot fly incidence	580.10 kg/ha 4.35 feet 13.5 cm 4.12 %	The variety Co 30 performed well compared to DSV 7	The variety DSV 7 is taller than the variety Co 30 and both the varieties are on par with one another.	-	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: Local variety	-	414.4	kg/ha	4850	1.82
Technology option 2: Variety Co30	TNAU, 2009	580.10	kg/ha	9158	2.54
Technology option 3: Variety DSV 7	UAS, Dharwad 2008	563.30	kg/ha	8721	2.46

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

<table>
<tr><td>1.</td><td>Title of Technology Assessed</td><td>:</td><td colspan="3">Assessment of sorghum varieties for Cuddalore district</td></tr>
<tr><td>2.</td><td>Problem Definition</td><td>:</td><td colspan="3">• Incidence of smut and grain mould, Poor grain yield</td></tr>
<tr><td>3.</td><td>Details of technologies selected for assessment</td><td>:</td><td>Technology option 1

Local varieties</td><td>Technology option 2

Cultivation of Sorghum CO 30</td><td>Technology option 3:

Cultivation of Sorghum DSV 27</td></tr>
<tr><td>4.</td><td>Source of technology</td><td>:</td><td>Farmers' practice</td><td>TNAU</td><td>UAS, Dharwad</td></tr>
<tr><td>5.</td><td>Production system and thematic area</td><td>:</td><td colspan="3">Varietal evaluation</td></tr>
<tr><td>6.</td><td>Performance of the Technology with performance indicators</td><td>:</td><td colspan="3">The performance of the crop was recorded under irrigated condition. The Sorghum variety CO 30 performed well compared to DSV 7 and found suitable for cultivation in Cuddalore district
<table>
<tr><th>Particulars</th><th>Yield kg/ha</th><th>Plant height feet</th><th>Earhead length cm</th><th>Shootfly damage %</th></tr>
<tr><td>CO 30</td><td>580.1</td><td>4.35</td><td>13.50</td><td>4.12</td></tr>
<tr><td>DSV 7</td><td>563.3</td><td>5.25</td><td>13.44</td><td>5.80</td></tr>
<tr><td>Check</td><td>414.4.</td><td>4.10</td><td>10.20</td><td>12.48</td></tr>
</table></td></tr>
<tr><td rowspan="2">7.</td><td rowspan="2">Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques</td><td></td><td>Seed sowing</td><td>Agronomy practice</td><td>IPM</td></tr>
<tr><td></td><td>60%</td><td>80%</td><td>50%</td></tr>
<tr><td>8.</td><td>Final recommendation for micro level situation</td><td>:</td><td colspan="3">The Sorghum variety CO 30 may be recommended for Cuddalore district.</td></tr>
<tr><td>9.</td><td>Constraints identified and feedback for research</td><td>:</td><td colspan="3">Nil</td></tr>
<tr><td>10.</td><td>Process of farmers participation and their reaction</td><td>:</td><td colspan="3">The farmers have actively participated in all the activities in conducting the OFT. The performance of CO 30 sorghum variety was realized by the farmers. The higher yield obtained compared to the local varieties cultivated by them made them to go for CO 30 in future.</td></tr>
</table>

4. D1. Results of Technologies Refined: -Nil

PART. V - FRONTLINE DEMONSTRATIONS

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

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	--
1	Pulses	Irrigated	Rabi, 2015	Black gram	MDU-1	-	Variety demonstration	Demonstration of Blackgram MDU 1	4.2	4.2	2	9	11	
2	Cereals	Irrigated	Kharif 2015	Paddy	CO 51	-	Variety demonstration	Demonstration and farmers participatory seed production of paddy variety CO 51 of Cuddalore district	6.0	6.0	2	13	15	
3	Cereals	Irrigated	Kharif 2015	Paddy	MDU 6	-	Variety demonstration	Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district	4.0	10	0	10	10	
4	Cereals	Irrigated	Rabi 2015	Paddy	CR 1009	-	Plant protection	Demonstration of IPM strategies for pest and disease management in samba paddy	2.5	2.5	2	8	10	
5	Millets	Rainfed	Rabi 2016	Varagu	Co 3	-	Varietal evaluation	Demonstration of Varagu Co 3	3.2	3.2	3	5	8	
6	Oil seeds	Irrigated	Rabi 2015	Groundnut	VRI 6	-	Seed Production	Demonstration and farmers participatory seed production of groundnut variety VRI 6 of Cuddalore district	1.4	1.4	2	4	6	
7		Rainfed	Rabi 2015	Groundnut	VRI 2	-	Crop management	Demonstration of paired row planting in rainfed groundnut	4	4	3	7	10	
8		Irrigated	Rabi 2015	Groundnut	Dharani	-	Variety demonstration	Demonstration of Ground nut variety Dharani	2.4	2.4	1	5	6	
9		Irrigated	Rabi 2015	Groundnut	-		Nutrient management	Demonstration of TNAU MN mixture in groundnut	10	10	5	20	25	
10	Vegetables	Irrigated		Cluster bean	MDU 1	-	Variety demonstration	Demonstration of new cluster bean variety MDU 1	3.6	3.6	4	10	14	
11		Irrigated	Kharif 2015	Brinjal	Ujala	-	Plant protection	Demonstration of eco friendly pest management in brinjal	2.5	2.5	1	9	10	
12		Irrigated		Nutri herbo garden	-	-		Demonstration of nutri herbo garden in schools	0.2	0.2	-	-	10	
13	Fruit	Irrigated	Rabi 2015	watermelon	-	NS5	Crop	Demonstration of ICM in watermelon	0.4	0.4	2	8	10	

							management							

14	Fruit	Irrigated		Banana	Poovan	-	Nutrient management	Demonstration of IIHR bunch nutrition in banana	4.8	4.8	4	8	12	
15	Sugarcane	Irrigated	Rabi 2015	Sugarcane	COC 08336	-	Crop management	Enrichment of coco pith as a medium for portray sugarcane seedling	0.4	0.4	1	4	5	
16	Fodder	Irrigated	Through out the year	Fodder sorghum Fodder cowpea Velimasal	CO 31 Co(FC) 8	CO(CN) 4 -	Crop management	Demonstration of fodder crops	0.47	0.47	1	4	5	-

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

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Status of soil			Previous crop grown
									N	P	K	
1.	Pulses	Irrigated	Rabi, 2015	Black gram	MDU-1	-	Variety demonstration	Demonstration of Blackgram MDU 1	L	M	H	Paddy
2.	Cereals	Irrigated	Kharif 2015	Paddy	CO 51	-	Variety demonstration	Demonstration and farmers participatory seed production of paddy variety CO 51 of Cuddalore district	L	M	H	Blackgram
3.	Cereals	Irrigated	Kharif 2015	Paddy	MDU 6	-	Variety demonstration	Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district	L	M	H	Blackgram
4.	Cereals	Irrigated	Rabi 2015	Paddy	CR 1009	-	Plant protection	Demonstration of IPM strategies for pest and disease management in samba paddy	L	M	H	Blackgram
5.	Oil seeds	Irrigated	Rabi 2015	Groundnut	VRI 6	-	Seed Production	Demonstration and farmers participatory seed production of groundnut variety VRI 6 of Cuddalore district	L	M	H	Blackgram
6.	Oil seeds	Rainfed	Rabi 2015	Groundnut	VRI 2	-	Crop management	Demonstration of paired row planting in rainfed groundnut	L	M	H	Blackgram
7.	Oil seeds	Rainfed	Rabi 2015	Groundnut	Dharani	-	Variety demonstration	Demonstration of ground nut variety Dharani	L	M	H	Blackgram
8.	Oil seeds	Irrigated	Rabi 2015	Groundnut	VRI 2		Nutrient management	Demonstration of TNAU MN mixture in groundnut	L	M	H	Sesame
9.	Millets	Rainfed	Rabi 2016	Varagu	Co 3	-	Varietal evaluation	Demonstration of Varagu Co 3	L	M	H	Sorghum
10.	Vegetables	Irrigated		Cluster bean	MDU 1	-	Variety demonstration	Demonstration of new cluster bean variety MDU 1	L	M	H	Groundnut
11.		Irrigated	Kharif 2015	Brinjal	Ujala	-	Plant protection	Demonstration of eco friendly pest management in brinjal	L	M	H	Tapioca
12.		Irrigated		Nutri herbo garden	-	-	Food and Nutrition	Demonstration of nutri herbo garden in schools	L	M	H	-

13.	Fruits	Irrigated	Rabi 2015	Watermelon	-	NS5	Crop management	Demonstration of ICM in watermelon	L	M	H	Paddy
14.		Irrigated		Banana	Poovan	-	Nutrient management	Demonstration of IIHR bunch nutrition in banana	L	M	H	Vegetables
15.	Sugarcane	Irrigated	Rabi 2015	Sugarcane	COC 08336	-	Crop management	Enrichment of coco pith as a medium for portray sugarcane seedling	L	M	H	Groundnut
16.	Fodder	Irrigated	Throughout the year	Fodder sorghum Fodder cowpea Velimasal	CO 31 Co(FC) 8	CO(CN) 4	Crop management	Demonstration of fodder crops	L	M	H	Paddy

5.B. Results of Frontline Demonstrations

5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Pulses	Demonstration of Blackgram MDU 1	MDU-1		Irrigated	11	4.4	9.62	8.00	8.67	7.02	23.50	21060	70296	49236	3.34	21060	56872	35812	2.71
Cereals	Demonstration of farmers participatory seed production of paddy variety CO 51 of Cuddalore District	CO 51	-	Irrigated	15	6	75	60	67.5	60.4	11.7	38126	107600	69474	2.83	49494	88487	38993	1.79
	Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district	MDU 6		Irrigated	10	4	60.00	53.47	56.48	51.62	9.41	44485	62127	17642	1.40	46375	56782	10707	1.23
	Demonstration of IPM strategies for pest and disease management in samba paddy	CR 1009		Irrigated	10	2.5	70.5	64.25	66.09	63.72	3.71	44451	107041	62590	1.41	47071	101956	54885	1.16

Millets	Demonstration of Varagu Co 3	CO 3	-	Rainfed	8	3.2	17.50	14.35	15.79	11.70	34.95	11012	28433	17420	2.58	11012	21071	10058	1.92
Oil seeds	Demonstration and farmers participatory seed production of groundnut variety VRI6 of Cuddalore District	VRI 6	-	Irrigated	6	2.4	26.47	23.75	25.11	20.53	22.30	54800	101926	47126	1.86	64376	82840	17715	1.27
	Demonstration of paired row planting in rainfed groundnut	VRI 2		Rainfed	10	4	27.33	23.64	25.48	19.72	29.20	56559	103256	46699	1.82	55426	78908	23482	1.42
	Demonstration of Ground nut variety Dharani	Dharani		Irrigated	6	2.4	42.80	38.50	40.80	20.10		32267	122440	90173	3.8	32267	60340	28073	1.87
	Demonstration of TNAU MN mixture in groundnut	VRI 2		Irrigated	25	10	31.65	28.2	29.88	28	6.72	58720	149394	90674	2.55	57845	139986	82141	2.42
Vegetables	Demonstration of new cluster bean variety MDU-1	MDU-1	-	Irrigated	14	3.6	174.25	158.00	167.20	131.36	10.28	49882	150266	100384.29	3.01	49882	111740	61858	2.24
	Demonstration of eco friendly pest management in brinjal	Ujala		Irrigated	10	2.5	335.28	259.12	293.62	278.72	5.34	48311	234902	186591	3.86	53036	222981	169944	3.205
	Demonstration of nutri herbo garden in schools	-		Irrigated	10	0.2	176.25	118.7	148.73	-	-	52865	14872	95860	2.81	-	-	--	-
Fruits	Demonstration of ICM in watermelon	-	NS 5	Irrigated	10	4.0	322.5	277.5	298.1	242.7	22.82	78100	207068	137068	2.65	74513	165758	91246	2.22
	Demonstration of bunch nutrition in banana	Poovan	-	Irrigated	12	4.8	677.5	590.0	643.33	535.63	20.10	127604	388685	261081	3.05	120757	308568	187811	2.55
Sugarcane	Enrichment of coco pith as a medium for portray sugarcane seedling	COC 08336	-	Irrigated	5	1 acre	-	-	-	-	Establishment % of seedlings is 8 % higher	4488 for 5000 seedlings	8658	4164	1.93	4413 for 5000 seedlings	7974	3561	1.81

Fodder Crops	Demonstration of fodder crops		CO (CN) 4	Irrigated	5	0.47	34.20	26.84	30.11	-	Four animals can be fed throughout the year
		CO (FS)31	-				13.82	11.26	12.47	-	
		CO(FC) 8	-				12.10	8.45	10.88	-	
		Velimas al	-				56.08	42.00	48.56	-	

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

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Demo**	**Check**
Demonstration of Black gram MDU 1		
No.of pods/plant	12.88	10.75
Incidence of yellow mosaic virus %	0.83	19.23
Demonstration and farmers participatory seed production of paddy variety CO 51 of Cuddalore district		
No. of productive tillers	21.4	17.6
No.of grains /panicle	150	132
Demonstration of paddy variety MDU 6 for Kuruvai season in Cuddalore district		
No. of productive tillers	19.84	16.32
No.of grains /panicle	161.26	137.72
Demonstration of IPM strategies for pest and disease management in samba paddy		
Leaf folder incidence %	0.8	2.64
Stem borer incidence %	2.01	2.7
Blast incidence %	0.76	1.9
Bacterial blight incidence %	3.08	3.02
Demonstration and farmers participatory seed production of groundnut variety VRI 6 of Cuddalore district		
No.of pods/plant	33.6	18.8
100 pod weight	37.9	29
Demonstration of paired row planting in rainfed groundnut		
No.of pods/plant	43.8	19.5
100 pod weight	49.9	31.6
Demonstration of Ground nut variety Dharani		
No. of pods/plant	21.3	18.3
100 seed weight	41.8	40.5
Demonstration of TNAU MN mixture in groundnut		
No.of pods/plant	23.96	18.8
Demonstration of Varagu Co 3		
No.of tillers /hill	22.71	13.66
Days to maturity	120.62	142.75
Demonstration of new cluster bean variety MDU 1		
No.of pods/plant	154.59	129.85
100 pod weight	431.2	389.3
Demonstration of eco friendly pest management in brinjal		
Fruit borer incidence %	15.88	20.74 (FP: Application of only chemicals)
Shoot damage incidence %	11.41	16.52 (FP: Application of only chemicals)
No.of fruit borer adults captured /trap	78.2	- (Trap not fixed)

Demonstration of ICM in watermelon		
No.of fruits /plant	3.33	2.95
Fruit weight (kg)	3.43	3.02
Demonstration of IIHR bunch nutrition in banana		
No.of hands /plant	10.21	9.15
Fruit weight (g)	140.79	115.75
Enrichment of coco pith as a medium for portray sugarcane seedling		
Establishment per cent	96.0	88.6
Seedling vigour index	2995	1411
No.of leaves /plant (Nos.)-25 DAS	3.8	2.1
Root length (cm)-25 DAS	45.5	35.6

5.B.2. Livestock and related enterprises : Nil
5.B.3. Fisheries : Nil
5.B.4. Other enterprises : Nil
5.B.5. Farm implements and machinery : Nil

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

Sl.No.	Activity	No. of activities organized	Number of participants	Remarks
1	Field days	9	264	-
2	Farmers Training	50	2370	-
3	Media coverage (Radio programme)	3	Mass	-
4	Training for extension functionaries	29	1102	-
5	Others (Please specify) a. Extension literatures prepared and distributed b. News paper coverage	9	Mass	-

PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids: Demonstration of ICM in watermelon

Crop	Name of the Hybrid	No. of farmers	Area (ha)	Yield (kg/ha) / major parameter			Economics (Rs./ha)			
				Demonst-ration	Local check	% change	Gross Cost	Gross Return	Net Return	BCR
Watermelon	NS 5	10	4.0	298.1	242.7	22.82	78100	207068	137068	2.65

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
Crop Production										
Weed Management	03	17	03	20	02	-	02	19	03	22
Resource Conservation Technologies	-	-	-	-	-	-	-	-	-	-
Cropping Systems	-	-	-	-	-	-	-	-	-	-
Crop Diversification	-	-	-	-	-	-	-	-	-	-
Integrated Farming	42	21	02	23	04	01	05	25	0	28
Micro Irrigation/Irrigation	-	-	-	-	-	-	-	-	-	-
Seed production	02	18	02	20	02	-	02	20	02	22
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	06	42	16	58	11	03	14	53	19	72
Soil and Water Conservation	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	05	48	12	60	02	03	05	57	17	68
Production of organic inputs	02	41	08	49	03	02	05	44	10	54
Horticulture										
a) Vegetable Crops										
Nursery raising	02	18	02	20	03	01	04	21	03	24
Protective cultivation	-	-	-	-	-	-	-	-	-	-
b) Fruits										
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
c) Ornamental Plants										
Nursery Management	-	-	-	-	-	-	-	-	-	-
d) Plantation crops										
Production and Management technology	-	-	-	-	-	-	-	-	-	-
e)Tuber crops										
Production and Management technology	-									-
f) Spices	--	--	--	--	--	--	--	--	--	--
g) Medicinal and Aromatic Plants										
Nursery management	-	-	-	-	-	-	-	-	-	-
Soil Health and Fertility Management										
Soil fertility management	-	-	-	-	-	-	-	-	-	-
Integrated water management	-	-	-	-	-	-	-	-	-	-
Integrated nutrient management	-	-	-	-	-	-	-	-	-	-

Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of Problematic soils	02	13	02	15	02	-	02	15	07	17
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient use efficiency	-	-	-	-	-	-	-	-	-	-
Soil and water testing	-	-	-	-	-	-	-	-	-	-

Livestock Production and Management										
Poultry Management	-	-	-	-	-	-	-	-	-	-
Feed and Fodder technology	01	10	02	12	02	-	02	12	02	19
Home Science/Women empowerment										
Value addition	03	36	11	47	04	08	12	40	19	59
Location specific drudgery production	-	-	-	-	-	-	-	-	-	-
Agril. Engineering										
Farm machinery and its maintenance	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	03	52	10	62	02	-	02	54	10	64
Integrated Disease Management	03	47	03	60	02	-	02	49	03	51
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
Fisheries										
Integrated fish farming	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Production of Inputs at site										
Seed Production	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Mushroom production	-	-	-	-	-	-	-	-	-	-
Others	02	16	08	22	02	01	03	18	09	27
Total	**76**	**379**	**84**	**468**	**41**	**19**	**60**	**427**	**104**	**527**

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
Crop Production										
Weed Management	03	48	03	51	02	01	03	50	04	54
Resource Conservation Technologies	-	-	-	-	-	-	-	-	-	-
Cropping Systems	-	-	-	-	-	-	-	-	-	-
Crop Diversification	-	-	-	-	-	-	-	-	-	-
Integrated Farming	04	36	18	54	10	02	12	46	20	56
Micro Irrigation/Irrigation	-	-	-	-	-	-	-	-	-	-
Seed production	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	05	72	16	88	17	03	20	89	19	108
Soil and Water Conservation	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Horticulture										
a) Vegetable Crops										
Off-season vegetables	04	36	42	78	10	02	12	46	44	90
Nursery raising	-	-	-	-	-	-	-	-	-	-
Protective cultivation	-	-	-	-	-	-	-	-	-	-
b) Fruits	-	-	-	-	-	-	-	-	-	-
Training and Pruning	-	-	-	-	-	-	-	-	-	-
Cultivation of Fruit	-	-	-	-	-	-	-	-	-	-
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
Nursery Management	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-
g) Medicinal and Aromatic Plants										
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	-	-	-	-	-	-	-	-	-	-
Soil fertility management	04	36	18	54	11	02	13	47	20	57
Integrated water management	05	41	17	48	06	01	07	47	18	65
Integrated nutrient management	04	26	13	39	07	03	10	33	16	49
Production and use of organic inputs	03	48	21	69	02	01	03	50	22	74
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-

Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient use efficiency	04	52	24	66	03	04	07	55	28	83
Balanced use of fertilizers	-	-	-	-	-	-	-	-	-	-
Soil and water testing	03	32	18	50	03	02	05	35	20	55
Dairy Management	-	-	-	-	-	-	-	-	-	-
Poultry Management	02	10	18	28	04	05	09	14	23	37
Animal Nutrition Management	-	-	-	-	-	-	-	-	-	-
Household food security by kitchen gardening and nutrition gardening	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Location specific drudgery production	-	-	-	-	-	-	-	-	-	-
Farm machinery and its maintenance	-	-	-	-	-	-	-	-	-	-
Installation and maintenance of micro irrigation systems	-	-	-	-	-	-	-	-	-	-
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	08	73	12	85	24	13	37	95	25	120
Integrated Disease Management	10	86	09	95	11	04	15	97	13	110
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
Fisheries										
Integrated fish farming	-	-	-	-	-	-	-	-	-	-
Seed Production	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-
Others	1	18	7	25	-	-	-	18	7	25
Total	**60**	**614**	**236**	**830**	**110**	**43**	**153**	**722**	**279**	**983**

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	03	17	02	19	02	01	03	19	03	22
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-
Integrated farming	-	-	-	-	-	-	-	-	-	-
Seed production	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Vermi-culture	-	-	-	-	-	-	-	-	-	-
Mushroom Production	02	30	21	51	-	-	-	30	21	51
Value addition	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
TOTAL	**05**	**47**	**23**	**70**	**02**	**01**	**03**	**49**	**24**	**73**

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	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-
Integrated farming	02	08	02	10	02	01	03	10	03	13
Seed production	01	11	01	12	02	02	04	13	03	16
Planting material production	02	07	01	08	01	01	02	08	02	10
Mushroom Production	01	16	07	23	04	05	09	20	12	32
Value addition	02	11	02	13	02	01	03	13	03	16
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
TOTAL	**08**	**53**	**13**	**66**	**11**	**10**	**21**	**64**	**23**	**87**

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	02	69	16	85	03	01	04	72	17	89
Integrated Pest Management	02	70	14	84	04	02	06	74	16	88
Integrated Nutrient management	01	36	07	43	02	01	03	38	8	46
Protected cultivation technology	01	38	07	45	02	01	03	40	8	48
Information networking among farmers	-	-	-	-	-	-	-	-	-	-
Total	06	213	44	257	11	06	16	224	49	271

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
1	**Crop production and management**										
1.a.	**Others (pl. specify)**										
	SSI	17	330	07	337	83	-	83	418	07	420
	Total	**17**	**330**	**07**	**337**	**83**	**-**	**83**	**418**	**07**	**420**

7.H. Details of Vocational Training Programmes carried out by KVKs for rural youth

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**Crop production and management**										
1.a.	Integrated crop management(IFS)	-	-	-	-	-	-	-	-	-	-
1.b.	Organic farming	-	-	-	-	-	-	-	-	-	-
2											
2.a.	Value addition	-	-	-	-	-	-	-	-	-	-
3.											
3.a.	Vermi-composting	-	-	-	-	-	-	-	-	-	-
3.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-
3.c.	Mushroom cultivation	02	50	11	51	06	01	03	42	12	68
3.d.	Nursery, grafting etc.	-	-	-	-	-	-	-	-	-	-
	Grand Total	**02**	**50**	**11**	**51**	**06**	**01**	**03**	**42**	**12**	**68**

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	6	74	18	92	16	2	18	7	-	7
Kisan Mela	4	912	14	926	48	14	62	18	8	26
Exhibition	5	MASS								
Film Show	15	912	14	926	48	14	62	18	8	26
Method Demonstrations	24	248	06	254	14	06	20	06	02	8
Farmers Seminar	-	-	-	-	-	-	-	-	-	-
Workshop	-	-	-	-	-	-	-	-	-	-
Group meetings	06	212	3	215	12	4	16	6	2	8
Lectures delivered as resource persons	23	MASS								
Newspaper coverage	15	MASS								
Radio talks	5	MASS								
TV talks	14	MASS								
Popular articles	13	MASS								
Extension Literature	09	MASS								
Advisory Services	324	296	12	308	12	04	16	-	-	-
Scientific visit to farmers field	108	94	03	97	08	03	11	-	-	-
Farmers visit to KVK	-	795- Excluding the major programmes held at KVK								
Diagnostic visits	108	94	03	97	08	03	11	-	-	-
Exposure visits	25	657	-	657	48	-	48	-	-	-
Celebration of important days (World soil day)	1	184	06	190	12	-	12			
Total	**649**	**3589**	**76**	**3665**	**218**	**47**	**265**	**55**	**20**	**75**

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

a. Pre-Kharif Awareness Programme: 08.08.2015

1	Name of the KVK	:	**Krishi Vigyan Kendra, Viruddhachalam**, Cuddalore District.
2	Date (s) of Conduct of the Programme	:	08.08.2015
3	Number of participants attended	:	425
	• Farmers	:	300
	• Farm Women	:	25
	• Rural Youths	:	25
	• Extension Workers	:	20
	• NGOs / Private Agencies	:	15
	• Line Department Officials	:	10
	• Others	:	30
4	Involvement of line departments in the programme	:	Line departments of agriculture and horticulture were participated in the programme
	• Indicate the details	:	Joint Director of Agriculture, Deputy Director of Horticulture and Assistant Director of Agriculture of Vriddhachalam, Kammapuram, Mangalur, Kattumannarkoil, Nallur have participated in the programme
5	Involvement of NGOs / Private Agencies in the programme	:	NGO, Private companies, agro service agencies and farmer producer companies were participated in the programme.
	• Indicate the details	:	1. Sri SSAA Agri & Auto Service, 83/1, Main Road, Lalpuram, Chidambaram – 60 8001 2. Jain Irrigation Systems Private Limited, Vriddhachalam 3. Netafim Irrigation Limited, Vriddhachalam 4. Aspee Sprayer Private Limited, Cuddalore 5. Sri Sivasakthi Agencies, Kumaradevar Mud Premises, Gandhi Nagar, pennadam Road, Vriddhachalam 6. Sri Murugan Traders , 47 Junction Road, Vriddhachalam 7. Dhanuka Agritech Private Limited, Vriddhachalam 8. Indian Potash Limited, Vriddhachalam 9. Reliance Foundation, NGO Cuddalore 10. Rasi Nursery, Pudukurapettai, Vriddhachalam 11. Jayam Home made Products , Neyveli 12. Araikkal farmer producer company, Namakkal 13. Aero foods Vriddhachalam 14. Eeriyur manimuklta farmer producer company, Eeriyur
6	Give details above participation of MPs / MLAs / Local body members of the area concerned in the programme	:	**Honourable Th. M.C. Sampath,** Minister for Commercial Tax and Registration, Government of Tamil Nadu

			Hon.ble **Th. A. Arulmozhithevan** Member of Parliament for Cuddalore Constituency District Collector **Th. C. Sureshkumar** **Thiru. T. Dhanasekar,** Joint Director of Agriculture, Cuddalore **Dr. S. Elango,** Deputy Director of Agriculture (State Scheme) **Thiru. P.Haridoss,** Deputy Director of Agriculture (Central Scheme) **Thiru. P. Manimozhi,** Deputy Director of Horticulture **Thiru. M. Veeramuthu**, Kuppanatham Village president
7	Participation of press / media persons in the programme	:	08
	• Indicate details	:	Press people of Dinakaran, Dinamalar, Dinaboomi, Dinathanthi, Dinamani, Theekathir and mass media of Jaya TV and Puthiya thalaimurai have participated in the programme.
8	Efforts made to create awareness about the programme through newspapers / radio/ television/ mobile	:	Short message service were given to farmers via through MKisan Joint Director of Agriculture was requested to congregate groundnut and paddy growing farmers from the nearby blocks through the concerned Assistant Director of Agriculture Messages about the prekharif programme were published in tamil dailies
9	Press coverage /media coverage made about the conduct of the programme	:	Press and media were published the prekharif awareness programme in dailies and mass media telecast the programme
	• Give appropriate evidences	:	Enclosure I
10	Number of Exhibition stalls arranged and profile of stalls	:	**17 stalls were arranged** 1. KVK and Regional Research Station Vriddhachalam – Varieties, technology related to paddy, groundnut, jack and cashewnut 2. Oilseeds Research Station, Tindivanam- live Specimen of Groundnut and gingelly Varieties 3. Vegetable Research Station, Palur - Live specimens of vegetable varieties and Jack 4. Dhanukka Agritech Private Ltd- herbicides, growth regulators, insecticides, fungicides 5. Sri SSAA Agri & Auto Service – Mini tractor and power tiller and farm machinery 6. Aspee Sprayer Limited – Sparayer and other farm machinaries 7. Sri Murugan Traders – Equipments related to grafting, budding knife, sicature and other mini equipments related to agriculture, horticulture and forestry 8. Sri Sivasakthi Agencies – Farm machinaries and implements

			9. Indian Potash Limited – Fertilizers and water soluble fertilizers 10. Reliance Foundation – activities of NGO 11. Rasi Nursery – Seedlings of vegetables and flower crops 12. Jain Irrigations – drip units and sprinkler 13. Netafim – Drip irrigation and sprinkler 14. Jayam home made products – Pickles and idli podi 15. Aero foods – Millets flour and Confectionery items in millets 16. Araikkal farmer producer company – Millets based products 17. Eeriyur manimukta farmer producer company – Rice based products
11	Number of Demonstrations organized and their details	:	3 Demonstration were conducted. 1. Groundnut Seed drill sowing 2. Egg floatation techniques in paddy 3. Seed treatments methods
12	Valedictory function /Concluding session organized and its details	:	After the technical session, Interaction session was arranged with farmers and scientists of RRS and KVK were participated. Valedictory function was arranged at KVK Vriddhachalam with Professor and Head Regional Research Station, Programme coordinator and senior Professors of Regional Research Station were participated and concluded the programme.
13	Publications brought out – details	:	2 booklets and 6 leaflets were prepared and distributed to the farmers attended the prekharif training programme **I. Booklets** 1. Kuruvai mattrum samba nerpayir melanmai 2. Groundnut production Technology **II. Leaflets /Pamphlets** 1. Neradi nel vithaippu – sagupadi kurippukal 2. Nellil rettippu magasuluku enthral nadavu 3. Valarum velanmai subscription 4. Nellil ilai vanna attai moolam thazaisathu nirvagam 5. Kaalan valarppu **6.** Maavu poochi melanmai
14	Sale of KVK inputs in the programme – details of inputs and income generated	:	Nil
15	Income generated through stall rent etc.	:	Rs. 9500/- were generated through stall rent
16	Budget sanctioned and expenditure made	:	Budget Sanctioned : Rs. 80,000/- Expenditure : Rs. 80,000/-
17	Details about participation of VIPs in the programme	:	**Honourable Th. M.C. Sampath,** Minister for Commercial Tax and Registration, Government of Tamil Nadu Hon.ble **Th. A. Arulmozhithevan** Member of Parliament for Cuddalore Constituency

			District Collector **Th. C. Sureshkumar** **Thiru. T. Dhanasekar,** Joint Director of Agriculture, Cuddalore **Dr. S. Elango,** Deputy Director of Agriculture (State Scheme) **Thiru. P.Haridoss,** Deputy Director of Agriculture (Central Scheme) **Thiru. P. Manimozhi,** Deputy Director of Horticulture **Thiru. M. Veeramuthu**, Kuppanatham Village president
18	Feedback received from the farmers about the programme	:	• The technical programme on paddy groundnut, pulses, gingelly, cashew, Jack and plant protection measures were very informative • Exhibition stalls were self explanatory and more informative on farm implements and millets based products • Demonstration on seed treatment and egg floatation techniques in paddy was very much useful • Demonstration of using seed drill for sowing Groundnut is impressive and eye opener for change of attitude towards farm mechanization
19	Mobilisation of funds	:	Nil
20	Any other pertinent information about the programme	:	Seeds were distributed to the farmers by Honourable Minister M.C. Sampath, Commercial Tax and Registration for FLD Programme

b. Soil Health Day conducted on 05.12.2015

1	Name of the KVK	:	**Krishi Vigyan Kendra, Viruddhachalam**, Cuddalore District.
2	Date (s) of Conduct of the Programme	:	05.12.2015
3	Number of participants attended	:	202
	• Farmers	:	158
	• Farm Women	:	25
	• Rural Youths	:	32
	• Extension Workers	:	15

The soil health day was conducted at KVK, Cuddalore on 5.12.2015. Totally 158 farmers participated in the event. The programme was started at 10.30 AM. Welcome address was given by Dr. S. Kannan, Programme Coordinator of the KVK. The Presidential address was given by Dr. M. S. Aneesa Rani, Professor and Head, Regional Research Station stating that maintaining the good soil health is a strong base for effective crop production and also distributed 100 soil health cards to the farmers. The Assistant Director of Agriculture Mr. R. Vijayaragavan gave the details of schemes provided by government for improving soil health in the block.

In the programme, technical lectures on need of soil testing and soil health management by Mrs.G.Porkodi, SMS (Soil Science), organic farming by Dr.C.Harisudan, Asst. Prof. (Agronomy), micronutrients application for crops by Dr. K. Natarajan, SMS (SST), soil health and crop management in flood condition by Dr. K.Venkatalakshmi, SMS (Agronomy), bio fertilizers in soil health management by Dr.T.Saravanan, SMS (Plant Pathology), nutrient deficiency and its management by Dr.A.Rameshkumar, SMS (Hort), soil borne insects management by Dr. P. Indiragandhi, Asst. Prof (Entomology) and use of Agri tech portal in soil health management by Dr.M.Nirmala Devi, SMS (Agrl. Extension) were given to the participants.

Besides, advisory on soil health management in flood affected areas was also given in the programme in lieu of recent flood condition in the district and finally Mrs. G. Porkodi, SMS (Soil Science) gave vote of thanks.

c. Pre- Rabi Awareness Programme on 21.01.2016

Awareness campaign on pulses and vegetables was organized at KrishiVigyan Kendra, Vridhachalam, Cuddalore on 21.01.2016 for creating awareness in pulses and vegetables for achieving higher productivity in the district. The District Collector Dr. S. Sureshkumar and Dr.V.Ravi, Director, Tamil Nadu Rice Research Institute, Aduthurai were the special invitees of the programme.

The Programme was chaired by the District Collector Dr. S. Sureshkumar and 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 district collector Dr. C. Sureshkumar declared opened the exhibition having various agricultural technologies, varieties and farm implements displayed by the Regional Research Station and KrishiVigyan Kendra, Vridhachalam, Vegetable Research Station, Palur, State agricultural department 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 Director of Tamil Nadu Rice Research Institute, Aduthurai asked the farmers to test their soil for nutrient availability and use the fertilizers based on the soil test. He also mentioned importance of maintenance of soil health for future generation.

The District Collector Dr. S. Sureshkumar delivered special address and urged the farmers to utilise the KVK and research centre for technical guidance in crop cultivation. He also narrated the scope for higher productivity in pulses and vegetables so as to meet the demand of people in coming years.

Technical bulletins on Pulses and vegetables cultivation were released by the District Collector Dr. S. Sureshkumar. The critical inputs for cluster Front Line Demonstration Programmes on rabi pulses and groundnut were distributed to the farmers by the dignitaries.

Dr. M.S. Anneesarani, Professor and Head of Regional Research Station, Vridhachalam and Mr. P. Haridoss, Deputy Director (Agriculture), Joint Director of Agriculture and Mr. K. Sunder Rajan, Union Chairman of Vridhachalam felicitated the programme.

Technical session included lectures on recent technologies in pulses, varietal development, crop management, plant protection in pulses and vegetables were delivered by the scientists of KVK and RRS. Protray nursery for hi tech production of vegetable seedlings in brinjal and chillies were demonstrated to the farmers. Demonstration on integrated pest management in vegetables and decomposition of coirpith were taken in the programme.

Finally there was an interaction session between the scientists and farmers where the queries of the farmers on herbicides, fertilizers usage, plant protection in crops were answered. There were 204 farmers participated in the mega programme and got benefitted.

Dr. M. Nirmala Devi, SMS (Agrl. Extension) delivered the vote of thanks. The Programme ended up with National Anthem.

d. R

eport on Kisan Jai Vigyan Diwas Programme held on 29.12.2015.

- Day of conducting the Function : One day on 29.12.15
- Number of participants : 146

Name of the Dignitaries / People's Representatives Participated

- Professor and Head, Regional Research Station, Vridhachalam
- Assistant Director of Agriculture, Vridhachalam Block, Panchayat President, Pudukooraipet

Major events organized

- Importance and need of the celebration of Jai Kisan Jai Vigyan was highlighted.
- Exhibition on technologies and value added products of millets was arranged.
- Models on Roof gardening, slatted goat rearing, Integrated Farming System
- Activities of KVK were explained to the farmers
- Issues of the farmers related to crop production technologies were addressed
- Demonstration on Nutraceutical drink (Herbal drink) was done and drink issued to the participants in view of the preventive measure for the water borne diseases in flood affected areas

- Technical sessions on management of pest and diseases in paddy, pulses and oil seeds were conducted.

e.Report on Flood affected areas and Field visit in Cuddalore district

Agricultural crops		Horticultural crops	
Crop	**Area in hectares**	**Crop**	**Area in hectares**
Paddy	24000.0	Banana	1314.9
Sugarcane	1200.0	Tapioca	3510.15
Maize	7479.0	Flowers	112.0
Blackgram	1256.0	Vegetables	461.95
Cotton	3296.0	Papaya	21.0
Varagu	23.0	Betelvine	73.0
Total	**37254.0**	**Total**	**5493.0**

In Cuddalore District, there are 8 taluks, 13 Blocks, 5 Municipalities and 18 Town Panchayats. The blockwise data on flood affected areas is given below.

Blocks	Agricultural crops	Horticultural crops
	Area in hectares	**Area in hectares**
Cuddalore	1600.0	743.0
Kurinjipadi	6800.25	597.0
Panruti	496.7	502.0
Annagramam	1532.0	641.0
Parangipettai	3018.0	49.25
Keerapalayam	3260.0	138.4
Kumaratchi	3681.6	109.0
Bhuvanagiri	3867.3	133.0
Kattumannarkoil	156.0	87.25
Viruddhachalam	568.0	370.0
Kammapuram	1946.0	251.0
Mangalur	6720.0	1551.5
Nallur	3608.35	230.60
Total	**37254.0**	**5493.0**

Consequent to the heavy rain and flood on 8.11.15 & 9.11.15, a review meeting on flood damage assessment was conducted at Collectorate Office on 12.11.2015 and Honourable Ministers for Finance, Electricity, Revenue, Agriculture, Fisheries , Commercial tax and registration of Tamil Nadu Government, Secretaries of Tamil Nadu Govt and Officials of Line Departments attended the review meeting and gave suggestions for attending relief work. In this connection, on behalf of RRS & KVK, the following Scientists attended the meeting at Collectorate , Cuddalore.

1. Dr. M.S. Aneesa Rani, Professor and Head
2. Dr. S. Kannan, Programme Coordinator
3. Dr. K. Natarajan, SMS (Seed Science & Technology)
4. Tmt. G. Porkodi, SMS (Soil Science)

Damage Assessment in Mangalur block

Tmt. G. Porkodi SMS (Soil Science) of this KVK visited the flood affected fields of cotton and maize at Mangalur Block of Cuddalore district along with Officials of Department of Agriculture on 13.11.15 and assessed the damage and recommended necessary crop recovery measures.

Damage Assessment in Vriddhachalam block

The Programme Coordinator and SMS of the KVK, Vridhachalam visited fields affected by the recent rain along with Assistant Director of Agriculture, Vridhachalam and Deputy Director of Horticulture, Villupuram who is deputed for cyclone affected areas for the Vridhachalam block by the Government of Tamil Nadu on 16.11.2015. The crops viz., blackgram, maize and paddy were inspected in the villages viz., Thoravalur, Saasthium and Kodukkur of vridhachalam block.

The blackgram was in early vegetative stage and the field was in inundated condition. The maize crop was in maturity stage and lodging was observed due to the heavy downpour. The paddy crop was in submerged condition in the low lying areas. The farmers were advised to drain out the water stagnated in the field.

Damage Assessment in Kurinjipadi block

The following scientists visited flood affected areas of Kurinchipadi block on 17.11.2015 along with Agricultural Officer of the block concerned.

1. Dr. M. S. Aneesa Rani, Professor and Head
2. Dr. S. Kannan, Programme Coordinator
3. Dr. K. Natarajan, SMS (SST)
4. Dr. T. Saravanan, SMS (Plant Pathology)
5. Dr. A. Ramesh Kumar, SMS (Horticulture)

The above scientists visited flood affected village - Ayyan kurinchipadi of kurinchipadi block, in which paddy crop is in submerged condition. The crop is 25 days after transplanting stage. The farmers are advised to drain out the water stagnated in the field and suitable management practices (recommended by Director, TRRI, Aduthurai) were recommended to the farmers for speedy recovery of the crop.

The scientists visited Kalkunam and Reddipalayam villages, where paddy fields are totally damaged and settlement of sand due to flood in Sengaal Channel is also observed in Kurinchipadi Block. In Pallineerodai village of Kurinchipadi block, the paddy crop is still in submerged condition and farmers are advised to drain the water.

Then the scientists also visited Nochikadu, Thiagavalli village of Kurinchipadi block, where casuarina and vettiver crops are being cultivated in large scale. Vettiver is cultivated in an area of 200 ha along the seashore. It is observed that the crop stand is good even under water inundation and settlement of sand due to flood and heavy rain. The farmers showed their interest towards vettiver cultivation as it serves as a good soil binder to control soil erosion. They also requested for training programme on vettiver cultivation, processing and value addition.

Damage Assessment in Panruti block

On, 18.11.2015, The Programme Coordinator, SMS of the KVK, Vriddhachalam visited Anguchettipalayam, Siruvattur village of Panruti block, in which paddy and sugarcane crop is damaged and submerged in rain water. The farmers are advised to drain out the water stagnated in the field and advised suitable management practices. Then, they also visited banana field affected by the recent rain at Periya Kappankulam of Panruti block. The crop was totally damaged, partially developed bunches were broken and were unsuitable for marketing.

f. Report for Awareness camp on Nutraceutical drink as preventive medicine for flood affected area in Cuddalore District

The KVK, Vridhachalam conducted awareness camps on nutraceutical drink as preventive medicine for flood affected area in Sathapadi and Vilakapadi villages of Kammapuram block on 14.12.2015. The KVK scientist demonstrated the preparation of the nutraceutical drink. The village people gathered in the camp were explained on the benefits of nutraceutical drink for preventing communicable diseases in view of recent flood. There were 243 peoples were benefited from the camp and taken the nutraceutical drink prepared by the KVK.

On 15.12.2015, the KVK conducted camps at Karunkuzhi and Maruvai villages of Kurinchipadi block. The scientist of the KVK demonstrated the preparation and benefits of the nutraceutical drink to the school childrens and teacher of Elementary as well as high school of Maruvai village and there were 257 students were taken the nutraceutical drink prepared by the KVK. Similarly, the camp also conducted at Karunkuzhi village and there were 162 peoples were benefited from the camp.

g. Free distribution of inputs as a measure of flood relief in cuddalore district

A Programme on **"Free distribution of inputs as a measure of Flood Relief in Cuddalore district"** was jointly organized by Regional Research Station, Vriddhachalam, Krishi Vigyan Kendra, Vriddhachalam, Sugarcane Research Station, Cuddalore and Vegetable Research Station, Palur at Kalkunam village of Cuddalore district on 21.12.2015. During the programme, Dr. K. Ramasamy, Hon'ble Vice-Chancellor of Tamil Nadu Agricultural University, Coimbatore distributed the inputs *viz.*., CO-51 paddy seeds, Pro-tray seedlings of brinjal, grafts of Palur -1 jackfruit and vegetable seed kit to the farmers whose farming was worst-hit by the recent floods during the north-east monsoon.

Cuddalore District Collector Dr. C. Suresh Kumar, I.A.S., presided over the programme. Dr.V. Ravi, Director, Tamil Nadu Rice Research Institute, Aduthurai, Dr.M.Baskaran, Special Officer (Seeds), TNAU, Coimbatore, Shri. K. Ilango, Joint Director of Agriculture (in-charge) of Cuddalore district, the Heads of various Research Stations of Cuddalore district and officials of Department of Agriculture and Horticulture, Govt. of Tamil Nadu participated in the Programme.

h. Progress Report for Cluster Frontline Demonstrations of Rabi pulses 2015-16 under NFSM

A. General Information

1	Name of the KVK	Cuddalore
2	Name of the crop	Blackgram
3	No. of FLDs (farmers) sanctioned	30
4	No. of FLDs (farmers) conducted	30
5	Area (ha) sanctioned	12
6	Area (ha) actually conducted	12
7	Sanctioned budget (Rs.)	90000
8	Budget received actually (Rs.)	90000
9	Expenditure so far (Rs.)	90000
10	Balance amount (Rs.)	Nil

B. Technical Information

1	Number of clusters	30
2	Land situation (irrigated, dry land, others specify)	Irrigated, Rice fallow pulses
3	Name of variety/varieties demonstrated	VBN 5 of Blackgram and MDU 1
4	Name of technology/technologies demonstrated	▪ Seed treatment with biofertilizers, bio control agents ▪ Soil sampling ▪ Pulse wonder spray ▪ Pest and disease identification ▪ IPM practices: Setting of pheromone trap and yellow sticky trap
5	Sowing date/dates as per clusters	First week of Feb, 2016
6	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them	Manuring, weedking, Irrigation done
7	Stage of the crop	The crop is in maturity stage as on 12.4.2016

C. Information on training and extension activities conducted

1. Training programmes

a. Number of training programmes organized: 2

b. Number of extension activities done: 7

Inputs given

- Seeds of blackgram
- Pulse wonder
- Pheromone trap
- Yellow sticky trap

Present status: The crop is in 72 days old and 10 days to remain for harvest.

Sl.No	Name of villages	No of pods/plants	Per cent incidence of yellow mosaic disease
1	Melpuliangkudi	5.75	15.65
2	Ambujavallipettai	4.5	20.14

i. Progress Report for Cluster Frontline Demonstrations of Groundnut 2015-16 under NFSM

A. General Information

1	Name of the KVK	Cuddalore
2	Name of the crop	Groundnut
3	No. of FLDs (farmers) sanctioned	55
4	No. of FLDs (farmers) conducted	55
5	Area (ha) sanctioned	22
6	Area (ha) actually conducted	22
7	Sanctioned budget (Rs.)	2,75,000
8	Budget received actually (Rs.)	2,75,000
9	Expenditure so far (Rs.)	2,75,000
10	Balance amount (Rs.)	Nil

B. Technical Information

Crop	Groundnut
Variety	TMV 13 and GJ 7
No. of demo	55 demonstration in 22 ha (Each demo 1 acre)
Season and date of sowing	Rabi - Farmers taken sowing on January last week due to heavy rain during November – December
Area of operation	Karuppanchavadi (Kurinjipadi Block) – 22 demonstration Chinnakomati (Parangipettai Block) – 33 demonstration
Critical inputs given	Seeds of TMV 13 Rhizobium, Phosphobacteria and *Trichoderma viride* Fertilizers – Urea and Potash , Groundnut Rich
Technology demonstrated	Demonstration of variety TMV 13 & GC 7 Demonstration Seed drill sowing Application of groundnut rich @ 5 kg/acre Demonstration of gypsum application Demonstration of Pre emergence and post emergence herbicide application Demonstration of IPDM practices
Present status	Crop is in maturity stage and it will be harvested within a week

C. Information on training and extension activities conducted

1. Training programmes

a. Number of training programmes organized: 2

b. Number of extension activities done: 8

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 (q)	Value (Rs)	Number of farmers
Pulses	Black gram	MDU 1	116	9280	10
Total				9280	10

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	3282	78768	150
	Jack grafts	PLR 1	2	10	2
Medicinal and Aromatic	Insulin and Aloe vera	-	28	280	15
Ornamental plants	Crotons		58	580	20
Brijal –protray seedlings	Brinjal	PLR 2	14797	11837	262
Teak			182	1820	27
Total				**93385**	**476**

9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
	Vermicompost	1160	11600	10
Total	Vermicompost	**1160**	**11600**	**10**

9.D. Production of livestock materials : Nil

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	• நிலக்கடலை சாகுபடி தொழில்நுட்பங்கள் • பலா சாகுபடி ஒரு கையேட • காளான் வளர்ப்பு • நீடித்த நிலைத்த நவீன கரும்பு சாகுபடி • குறுவை மற்றும் சம்பா நெற்பயிர் மேலாண்மை • தீவன பயிர் சாகுபடி தொழில்நுட்பங்கள் • பயறு வகை பயிர்களின் சாகுபடி தொழில்நுட்பங்கள் • மண் பரிசோதனையும் மண் வள மேம்பாடும். • காய்கறி பயிர்களில் பயிர் பாதுகாப்பு • காய்கறி பயிர்கள் சாகுபடி தொழில்நுட்பங்கள் • காய்கறி பயிர்களில் நாற்றாங்கால்

		தொழில்நுட்பங்கள். • பயறு வகை பயிர்கள்
3.	Research articles	-
4.	Symposium papers	-
5.	Popular articles	7
6.	Folders/Pamphlets	08 Nos
7.	New Paper	17 Nos.

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

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 ten successful entrepreneurs on seed production/ nursery technologies/ food processing/ flower arrangements. Brief outlines of their success story are presented here under.

Success story 1	**SEED PRODUCER (RAM MAHESH)**	

Name of the Farmer	:	Thiru. S.Ram Mahesh
Address for the communication with pin code	:	S/o. Sambanthamoorthy Vallam ,Thatchakadu B.Muttlur, ChidambaramT.K.
Contact Phone number	:	98844 01114
Area of the Farm and water source	:	He owns an area of 20 ha of rain fed land.
Technologies adopted	:	• He adopted improved Production Technologies for Rainfed Rice-ANNA 4. • He had followed all agronomic and plant protection practices for the paddy crop. • PPFM spray to mitigate drought
Impact due to Technological interventions	:	• In samba season, he cultivated ANNA 4 rice variety (under OFT) and achieved a good yield of 5880 kg/ha even though the entire Cauvery delta zone suffered out of severe water scarcity during this samba season. • The farmers have realized a increase of 23.81% yield over ruling Kar variety. The net return from the ANNA 4 variety given Rs 11485 per ha than of Rs 7557/- from Kar rice variety. • He won state level Best farmer award from TNAU during February, 2013.
Lessons learnt	:	• The Cuddalore district has considerable area under rainfed rice especially at Nallur, Mangalore blocks and also part of Bhuvanagiri and Vriddhchalam block during samba season. Generally, the farmers get very low yield mainly under rainfed situation owing to local varieties and poor maintenance. The locally available kar (Red) rice variety fetches low market value. • Cultivation of ANNA -4 proved excellent yield performance in his field (5880 kg/ha) even though the entire Cauvery delta zone suffered out of severe water scarcity during this samba season.

Details of spreading success to other farmers or farmers groups	:	Out of his yield, 2500 kgs of seed was procured from him as TFL seed with the approval of TNAU and distributed to the other farmers of Cuddalore district for further spread.

Field assessment by the DEE and KVK scientists

Mr. Ram Magesh receiving Best Farmer award from TN Agri Minister on 28.02.2013

Success story 2	SEED PRODUCER (SHIVASHAKTHI SEEDS)	

Name of the Farmer	:	Th. A. Ramesh
Address for the communication with pin code	:	S/o Adivaragan pillai Main road, Gunamangalam &Post Srimushnam 608703
Contact Phone number	:	9942515469
Area of the Farm and water resourced	:	15 acres with bore well
Technologies adopted	:	• 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.
Impact due to Technological interventions	:	• 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. • 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 BPT5204, 7t of ADT 39 and 3t of IW Ponni as his contribution to the farmers of Cuddalore District • He is earning approximately Rs. 3 lakhs /annum and generating employment of 192 man days per year.
Lessons learnt	:	• The seed production is a successful venture for farmers as it gives remuneration income to the farmer. • 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.
Details of spreading success to other farmers or farmers groups	:	The farmers of Gunamangalam village are being trained by the Th. A. Ramesh.

The Vice-Chancellor, TNAU, and the ZPD interacting with the entrepreneur at this KVK

Seed processing unit of the entrepreneur Mr.A.Ramesh

Success story 3	SEED PRODUCER (RAJA SEEDS)	

Name of the Farmer	:	Th. T. Subramaniyam
Address for the communication with pin code	:	S/o Thirugnanasambantham North street, Rajendrapattinam-608703
Contact Phone number	:	
Area of the farm and water source	:	35 acres of wet land with good irrigation sources**.**
Technologies adopted	:	Krishi Vigyan Kendra intervened and trained the farmers of Rajendrapattinum about the production of quality seeds under seed village training programme
Impact due to Technological interventions	:	• 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.
Lessons learnt	:	• Before the Training programme the farmer purchased the seeds from private seed companies, government outlets and also used their own farm saved seeds. • 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. • 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.
Details of spreading success to other farmers or farmers groups	:	The farmers of the Rajendra pattinum trained from Th. T. Subramaniyam and they are also producing certified seeds.

Mr. Raja, the seed producer at his sale outlet

Certified seed packs of Raja Seeds

Success story 4	NURSERY GARDEN (AMMAN NURSERY)	

Name of the Farmer	:	S.VIJAYALAKSHMI
Address for the communication with pin code	:	M/s.Amman nursery , Cuddalore Main Road, V.Sathamangalam, Vridhachalam t.k.
Contact Phone number	:	98652 45007
Area of the Farm and water source	:	1 ha. with bore well.
Technologies adopted	:	• Cashew seedlings were raised under soft wood grafting method under shade net. • Jack seedlings were also raised by grafting technology by the Amman nursery.
Impact due to Technological interventions	:	• A total no.of 2,10,000 Cashew seedlings were sold in the year of 2012 with a high viability rate (more than 95 %). • Earned a profit of 30,000/- per month.
Lessons learnt	:	• Seedlings recovery rate is higher in this grafting technology when compared to conventional method. • Seedling production is also a very good commercial venture for the farmers,rural youth and farm women to get a remunerative monthly income.
Details of spreading success to other farmers or farmers groups	:	This nursery is approved by the directorate of cashew and cocoa Development board, Cochin. So more numbers of farmers visited this nursery and learnt the technology.

Amman Nursery name board

Mr.Sivakumar Explaining his client

Success story 5	NURSERY GARDEN (SARADHAMBAL NURSERY)	

Name of the Farmer : Thiru. R.Muthukumaran

Address for the communication with pin code : Sarathambal nursery,
361, Kullanchavadi salai,
Vegakollai and Post, Panrutti taluk,
Cuddalore district.

Contact Phone number : 97904 15127

Area of the Farm and water source :
- Total area is 12 acres with assured irrigation source.
- One acre is being used for nursery.
- Among the total area, 5 acres have been planted with cashew, 2 acres with jack and remaining 3 acres has been utilized for crossandra cultivation and one acre for jasmine in which the mother plant stock materials are collected for making cuttings

Technologies adopted :
- Nursery production technologies-Grafting technique.
- Mist chamber construction,
- Use of growth regulators and
- Nursery mixture preparation.

Impact due to Technological interventions :
- At present in and around Vegakollai village there are 20 nurseries and the production capacity is 3-5 lakhs per unit with initial cost of Rs.50,000.
- On an average 15-20 lakh plants has been produced every year from crossandra nurseries in Vegakollai village.

Lessons learnt :
- The nursery unit is providing employment to the rural youth for 750-800 man days per unit per year.
- Seedling production is also a very good commercial venture for the farmers,rural youth and farm women to get a remunerative monthly income

Details of spreading success to other farmers or farmers groups :
- He generated rural employment to about 50 people in vegakollai.
- Nursery garden is profitable agribusiness and it provides employment oppurtunities to rural youth and farm women.
- The advent of hi tech methods will further boost up the production of quality seedling and higher returns.

Workers active in preparation of pot mixture

Workers active in seedling preparation

Success story 6	NURSERY GARDEN (SRI MURUGAN NURSERY)	

Name of the Farmer	:	A.Dhanavel
Address for the communication with pin code	:	Sri Murugan Nursery Cuddalore road, Pudukuraipettai Kuppanathum, Vridhachalam t.k.
Contact Phone number	:	98651 97550
Area of the Farm	:	1 acre
Technologies adopted	:	• Raising of seedlings viz., Cashew,Jack,Mango,Guava, • Sapota,Lemon,Amla, and other Ornamental plants • soft wood grafting method • .Shade net method
Impact due to Technological interventions	:	• 3000 no.of seedling are being sold/month • Approximately Rs.15,000/month as profit.
Lessons learnt	:	• Viability of seedlings is more than the conventional planting. • Quality and true types of seedlings were produced under soft wood grafting. • Even growth is achieved.
Details of spreading success to other farmers or farmers groups	:	Rasi Nursey, Amman nursery and velkkani nursery were started after getting training from Murgan nursey.

Nursery Board

Our SMS with the entrepreneur

Success story 7	JEYAM HOME MADE PRODUCTS	

Name of the Farmer	:	R.Suganthi and K.Seetha lakshmi
Address for the communication with pin code	:	M/s. Jeyam home made products, 101 ,Thangam Nagar, Gandhi nagar post, Vadakuthu, Kurinjipadi T.K.
Contact Phone number	:	Cell: 94860 89781
Area of the farm	:	1200 sq.ft
Technologies adopted	:	• Value added products in fruits, vegetables, pulses, cereals and millets. • Pickle preparation ready mix powder • Health food • Improved packaging and marketing.
Impact due to Technological interventions	:	• Sale of pickles/month:3000 bottles • Instant powder/month:200 kgs • Approximate profit/month :Rs.30,000/-
Lessons learnt	:	Value added products gain more market value than raw products.
Details of spreading success to other farmers or farmers groups	:	More no. of self help groups visited and learnt the technology from them .

Vice Chancellor, TNAU visiting the Stall of Mrs. Suganthi (Jeyam Food Products)

Mrs. N. Suganthi receiving "Velanmai Chemmal" award during the farmers day celebration on 11.01.2014 at TNAU

Success story 8	AERO FOODS	

Name of the Farmer	:	Mr.Manimozhi
Address for the communication with pin code	:	M/s.Aero Foods, 144/1 Annasalai, Periyar Nagar Vridhachalam, Cuddalore Tk.
Contact Phone number	:	94435 11316
Area of the company	:	800-900 sq.ft
Technologies adopted	:	• Prepared milletsbased value added products (Varagu,Samai,Theni, Ragi). • Prepared millet based Health mix
Impact due to Technological interventions	:	• 1.5 tonnes of processed millets are being sold every month • 400-500 kgs of millet based health mix powder are being sold every month • Earning an approximate profit of Rs.20,000/month
Lessons learnt	:	• Processed millets fetch more price than raw products. • Diabetic patient prefers millet based product rather than cereal based product and hence more market value.
Details of spreading success to other farmers or farmers groups	:	More no. of farmers were attracted towards this company and become member of this society.

AERO Foods –Production Unit

Display of Food products – AERO Foods Team

Success story 9	PETALZ BOUQUET SHOP	

Name of the Farmer	:	Mrs. R. Umaraju
Address for the communication with pin code	:	W/o Rajasekar 42, Ranganathan Street, Pathirikuppam Post, Arisiperiyankuppam Via, Cuddalore -607002
Contact Phone number	:	99651 21620
Area of the shop	:	Petals shop with a area of 700 sq.ft.
Technologies adopted	:	• Florist - Flower Bouquet arrangement • Floral stage decoration on commercial basis • Dry flower preparation and arrangement
Impact due to Technological interventions	:	• Effectively utilized flower raw materials available in the area. • One of the income generation activities for the farm woman, rural youth and earned Rs 40,000 per month.
Lessons learnt	:	• Flower Bouquet arrangement is a very good commercial venture for the women and youth to get a remunerative monthly income.
Details of spreading success to other farmers or farmers groups	:	➢ .Mr. R. Kovathanan of Mangalampettai has specialized in floral stage decorations and he has completed more than 300 floral stage decorations in and around Namakkal, Trichy, Villupuram, Neyveli and Vridhachalam ranging from Rs 6000 to Rs One lakh per decoration. ➢ Further Mr. K. Sakthivel of Chidambaram has been selling flower bouquet and basket bouquet during his leisure time from home on order basis ➢ Mrs.Punithavathi from Bhuvanagiri also doing dry flower business on new basis.

Vocational Training on Flower arrangements

Vice Chancellor,TNAU visiting the Stall of Mrs. Umaraju.(Petalz Bouquet Shop)

Success story 10	VERMICOMPOST PRODUCTION	

Name of the Farmer	:	Mr.V.Sekar
Address for the communication with pin code	:	S/o.Velmurugan Kodukkur village Vridhachalam tk-606001
Contact Phone number	:	97863 46901
Area of the farm	:	3000 sq.ft with bore well
Technologies adopted	:	Vermi composting technologies-by utilizing agricultural waste
Impact due to Technological interventions	:	• Recycled the waste effectively • Reduced the environmental pollution • 35 tonnes of vermi compost are being sold per year • Earning an approximate profit of Rs. 75,000 per year.
Lessons learnt	:	• Application of vermi compost enhances growth and yield of the crop rather than normal compost because of its growth hormone content and fetches huge margin. • Efficient way of utilizing agricultural waste.
Details of spreading success to other farmers or farmers groups	:	More no. of farmers were visited his farm and learnt the technology.

SUCCESSFUL ENTREPRENEURS
11. MUSHROOM

Name	Tmt: M.P. Fousiaa Begam W/o. Mohammed Faruk Jinna Sister Rajia Memorial Self Help group Aliyar Nagar Mangalampettai Vridhachalam Cuddalore District Mobile: 9443285405
Enterprise	Mushroom production
Brief about the individual	• Tmt: M.P. Fousiaa Begam was an unemployed woman and in a position to earn money to satisfy her family needs.
Write up on success story	• The KVK vridhachalam offered training on mushroom production and value added products from mushroom. • Production of oyster mushroom, milky mushroom, construction of mushroom shed and its maintenance and harvesting techniques were imparted to her. • She mobilized a group of 15 persons and formed a self help group viz., "Sister Ragia Mahalir Self Help Group" and started the enterprise in an area of 25 x 15 feet. • Further, she has established as additional unit of milky mushroom production unit in an area of 30 x 18 feet and successfully running the enterprise.

Success stories: 2015-16

1. IPM practices demonstration in samba paddy

Name of the Farmer	:	Mr. G. Sakthivel
Address for the communication with pin code	:	Sathukudal village Vridhachalam Block Cuddalore Dt
Contact Phone number	:	9788272673
Area of the Farm	:	8 acre
Practices followed before interventions:		• Indiscriminate use of pesticides • Four to six time spray of chemicals for pest and two time spray for disease • Annually an amount of Rs 6000 is spent for plant protection aspects in paddy cultivation
Technologies adopted (KVK interventions)	:	• Seed treatment with *P. fluorescens* at 10 g/kg of seeds • Soil application of *P. fluorescens* at 2.5 kg/ha • Setting of pheromone trap at 12/ha • Setting of yellow sticky trap at at 12/ha • Release of *Trichogramma chilonis* egg parasite at 5cc/ha for two times • Need based application of chemicals
Results of the KVK interventions		• IPM demonstration field recorded paddy yield of 66.49 q//ha, leaf folder incidence of 0.4 % leaf damage, stem borer incidence of 2.01 % dead heart symptom, blast disease of 0.76 lesion per leaf. The net return of Rs 65716. Where as farmers practice, an amount of Rs 62032 realized as net income in the cultivation.
Farmers feed back	:	• No pesticide spray in IPM demo field and No cost for pesticide purchase • In case, non IPM, four time spray of chemicals for control of leaf folder and stem borer and one time spray for disease done.

2. Demonstration of groundnut variety Dharani

Name of the Farmer	:	Mr.C.Thiyagarajan
Address for the communication with pin code	:	S/o.Mr.Chandran No. 6/16, Arul Illam Vevara Street North Periyar Nagar Vridhachalam
Contact Phone number	:	9994670428
Area of the farm	:	Ko.Mavidanthal
Technologies adopted	:	He adopted all the IPM and ICM practices recommended by TNAU for ground nut including micro nutrient and gypsum application
Impact due to Technological interventions	:	He obtained highest yield of ground nut variety Dharani (4280 kg/ha) which is 97.2 per cent higher than the farmers practice. He obtained a additional income of Rs.63,240/ha than the check (JL 24).
Lessons learnt	:	Ground nut variety Dharani withstand the moisture stress Easy to harvest High response to applied inputs (fertilizer and water etc.)
Details of spreading success to other farmers or farmers groups	:	More number of farmers were visited his farm and they were seen the performance of ground nut variety Dharani. He participated in the programmes organized by our Krishi Vigyan Kendra viz., Pre-*Kharif*, Pre-*Rabi* awareness programme, exhibitions and trainings. He shares his experience with other farmers.
Feed back	:	He satisfied about the performance of ground nut variety Dharani. He obtained higher income by the cultivation of ground nut variety Dharani.

3. Demonstration of black gram MDU 1

Name of the Farmer	:	Th. Haridas
Address for the communication with pin code	:	S/o. Srinivasan South street Karunatham village (Po) Mangalampet via Vridhachalam Taluk Cuddalore district
Contact Phone number	:	8124745434 9894826040
Area of the Farm	:	1 acre
Technologies adopted	:	• Seeds of black gram MDU 1 • Line sowing • Foilar application of TNAU pulse wonder • Drip irrigation
Results of intervention	:	• Yield obtained : 962.10 kg/ha • Pods /plant : 14.2 • Incidence of YMV: 0.8 %
Feed back from the farmer	:	• Cultivation of YMV resistant variety MDU 1 yielded more • The incidence of YMV is observed very less almost nil compared to the check variety VBN 3 (17.8 %) • Due to the quality produce harvested got good market price and earned the net return of Rs. 63289 with the BCR of 3.72
Details of spreading success to other farmers or farmers groups	:	As the farmer much satisfied with the performance of the variety he is ready to produce seeds during the next season and motivating other farmers to go for MDU 1

4. Demonstration of paddy MDU 6

Name of the Farmer	:	Th. S. Kanagaraj
Address for the communication with pin code	:	S/o. Sengalvarayan Muthiyal pettai, Annukkampattu (Po) Kurinjipadi Taluk Cuddalore district - 607 301
Contact Phone number	:	9524112744
Area of the Farm	:	1 acre
Technologies adopted	:	• Seeds of paddy MDU 6 • Integrated nutrient management practices • Integrated pest and disease management practices
Impact due to Technological interventions	:	• Yield obtained : 5564 kg/ha • No. of tillers : 19.4 • No. of grains per panicle: 154
Lessons learnt	:	• Highly suitable for *kuruvai* season • Suitable for raw rice and aval making • Good market price and earned the net return of Rs.16204 with the BCR of 1.36
Details of spreading success to other farmers or farmers groups	:	As the farmer much satisfied with the performance of the variety he is ready to produce seeds during the next season.

5. Integrated Crop management (ICM) practices in watermelon

Name of the Farmer	:	Th. V.Kanakarajan
Address for the communication with pin code	:	S/o. Veeraperumal Chinnakumatti Melbhuvanagiri block Chidhambaram Taluk Cuddalore district
Contact Phone number	:	
Area of the Farm	:	1 acre
Technologies adopted	:	• Seed treatment with Carbendazim @ 2 g/kg • Soil application of *Azospirillum-1.0 kg/acre, Phosphobacteria – 1.0 kg/acre and Pseudomonas fluorescens 1.0 kg/acre* • Ethrel spray @ 25 ml/ acre, 3 times from two leaf stage onwards at 7 days interval to increase female flower production
Impact due to Technological interventions	:	• Yield obtained : 111 quintal/ acre • Fruit weight : 3.36 kg • No. fruits/plant: 3.00
Lessons learnt	:	• Seed treatment with Carbendazim

- Use of bio fertilizers and bio inputs
- Use of ethrel to induce female flowers
- Due to the quality produce harvested got good market price and earned the net return of Rs. 47810 with the BCR of 2.54

Details of spreading success to other farmers or farmers groups : As the farmer realized the impact of ICM practices in watermelon, he is ready to spare his experience to his fellow farmers.

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	*Vasambu* (*Acotus calamus*) 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		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	To control parasites

		were mixed with water into paste and apply on the body of cattles for 2 hours	
14		Application of fat of pigs/henna leaf paste	To control foot and mouth disease in cattles

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	14
(ii)	Number of farm families selected	110
(iii)	Number of survey / PRA conducted	14

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^H 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
	Total	**12**	**532157**

Details of soil , water and plant analysis 2015-16

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	354	200	70	35400
Water Samples	58	35	10	2900
Total	**412**	**235**	**80**	**38300**

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	3592	3302	896	110575
Water Samples	3135	3084	1009	32480
Total	**6727**	**6386**	**1905**	**143055**

10.I. Technology Week celebration during 2015-16 :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: Does not arise

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Lectures organized	-	-	-
Exhibition	-	-	-
Diagnostic Practical's	-	-	-
Supply of Literature (No.)	-	-	-
Supply of Planting materials (No.)	-	-	-
Total number of farmers visited the technology week	-	-	-

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

Our KVK was not included under this special programme and hence the following details could not be provided.

A. Introduction of alternate crops/varieties - Does not arise

B. Major area coverage under alternate crops/varieties - Does not arise

C. Farmers-scientists interaction on livestock management - Does not arise

D. Animal health camps organized - Does not arise

E. Seed distribution in drought hit states - Does not arise

F. Large scale adoption of resource conservation technologies - Does not arise

G. Awareness campaign - Does not arise

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)
Drought mitigation in rice	625	25	Rs. 30000/ha	Rs. 35000/ha
Introduction of Anna 4 Paddy variety in drought prone areas	56	45	Rs. 34557/ha	Rs. 43485/ha
Precision farming technology (Sugarcane)	500	40	Rs. 127000/ha	Rs. 155000/ha
Introduction of ADT (R) 49 paddy	48	35	Rs. 40000/ha	Rs. 47000/ha
Transplanted redgram-FLD	20	10	Rs.17000/ha	Rs.25000/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
Flower arrangement techniques - vocational training during 2012-13	15	10	Rs. 10000/month	Rs. 28000/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

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.	ANNA 4 DROUGHT TOLERANT VARIETY

Anna 4 paddy was released during 2009 and is a semi dwarf, erect and non–lodging drought tolerant variety. The Cuddalore district has considerable area under rainfed rice especially in Nallur, Mangalore and also part of Bhuvanagiri and Vriddhchalam blocks during samba season. Generally, farmers get very low yield mainly under rainfed situation due to use of local varieties and moisture stress.

Interventions of KVK, Vridhachalam

During Samba 2012-13, this KVK has introduced this drought tolerant variety ANNA 4 to the above rainfed area under OFT programme. The farmers were trained well on improved production technologies for this rainfed rice and also they were explained about the performance of ANNA 4 paddy variety. The OFT programme was conducted in Sathiyam, Vaiyankudi and Thatchukadu areas. The farmers have realized a increase of 23.81% yield over ruling Kar variety. The net return from the ANNA 4 variety was Rs. 43485/- per ha than of Rs. 34557/- from local rice variety. Besides, the farmers were also impressed with the performance of ANNA 4 in terms of establishment, tiller production and non lodging characteristic until harvest. ANNA 4 variety has slender white rice compared local kar (red bold) and fetches more market value than local kar (red bold).

Impact of intervention

A farmer named Mr. Ram Jegathesh from Thatchukadu village of Parangipettai block cultivated ANNA 4 rice variety in his field at OFT trial in 2 ha. He had followed all agronomic and plant protection practices as recommended. He showed excellent yield performance in his field even though the entire cauvery delta zone suffered out of severe water scarcity during this samba season. More over as the crop stand was good in his field, during a field assessment made by the Director of Extension Education and the Programme Co-ordinator of this KVK it has been decided to procure TFL seed from this farmer for distribution to the local farmers. Accordingly we procured 1535 kg of TFL seed from this farmer with the approval of the honourable Vice Chancellor of Tamil Nadu Agricultural University. The farmer received “Best farmer” Award from the Honourable Minister for Agriculture, Tamil Nadu for the year 2013. The farmer has produced more than 3 tons of TFL seed during 2013 for further horizontal spread. This year 52 farmers adopted this variety in about 500 acres.

CASE 3.	AREA SPECIFIC MINERAL MIXTURE

TANUVAS evolved area specific mineral mixture "TANUVAS – SMART" mineral mixture and which is much than the conventional mineral mixture. About 50 g of TANUVAS – SMART mineral mixture should be supplemented to cows daily, which means that a farmer having five cows would be able to save about Rs 1000 / year.

Intervention of KVK, Vridhachalam

On farm trial on the assessment of mineral mixture "TANUVAS – SMART has been conducted during the period 2012- 13 at Sathiyavadi village, Vridhachalam Taluk. Totally 40 cows were taken for assessment (20 for control and 20 for treatment) with the following technological options.

Technology option-1 (Farmer's practice) – No mineral mixture

Technology option -2 (TANUVAS Mineral mixture)

Technology option -3 (Area specific mineral mixture)

Finally it was found that Area specific mineral mixture fed cows produced more milk (3-4 liters/day) compared to ordinary mineral mixture (2-3 liters/day) and control (1-2 liters/day).

Before intervention : Poor milk yield, unhealthy and poor consumption rate of dairy cows.

After intervention : After intervention, dairy cows gave more milk and the external appearance was also good and healthy. On seeing the success of this trial and on our subsequent intensive trainings now more than 200 farmers are using this mineral mixture for their dairy cows.

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 Puliyur 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

4. 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
Dept. of Agriculture	♦ Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization ♦ Mid monthly and Monthly Zonal Workshop ♦ FLD – Field day ♦ Participated in the training programme ♦ Watershed & Waste land development programme ♦ Seedling supply ♦ District level farm improvement committee ♦ In service training to AOs /AAOs ♦ Off campus training programme ♦ Farm advisory services ♦ Seed farm- seed production meeting ♦ ATMA implementation ♦ Precision farming project
Dept. of Horticulture	♦ Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization ♦ Off campus training programme ♦ Collaborative training programme ♦ Seedlings supply ♦ Demonstration ♦ NHM training on cashew, mango, banana,chillies and loose flowers ♦ Precision farming project
Annamalai University, Chidambaram	♦ Rural agricultural work experience programme ♦ U.G. and P.G. students visit to KVK ♦ Training to FSC clubs
TANUVAS, UTRC, Cuddalore	♦ Resource persons for training
Agricultural Extension Wing, Department of agriculture (TANCOF)	♦ Off campus training ♦ Seed supply & Watershed development ♦ Training on oil seed production technology
Department of Animal husbandry	♦ Advisory service
Collectorate, Cuddalore	♦ Grievance day meeting ♦ NLC expansion programme-alternate employment for displaced riots ♦ Agricultural production council meeting ♦ Periodical technical / consultative meeting

Table 12. A contd..

Mahalir Thittam / DRDA Cuddalore	♦ Sponsored training ♦ SGSY – SHG training ♦ Skill up-gradation programme ♦ Vazhalnthukattuvom project
Higher Secondary Schools	♦ Awareness campaign ♦ NSS campaign
NGOs	♦ Awareness campaign ♦ Training programme ♦ Demonstration
NABARD, Cuddalore	♦ Farmers group discussion ♦ TTC meetings ♦ Trainings to farmers
Agriculture Engineering Dept. Govt. of Tamil Nadu	♦ Rain water harvesting programme ♦ Training on agricultural implements and river basin development ♦ Resource person for department training programmes
ZRC, Coimbatore	♦ Training on power tiller operation, maintenance and its attachments ♦ Implements supply
Dept. of Millets, TNAU, Coimbatore	♦ FLD in kodomillet and maize ♦ Seed supply
Dept. of Forage crops, TNAU, CBE	♦ FLD and OFT on forage crops
NGO- KVKs	♦ Training and exposure visit ♦ Seed materials supply & FLD / OFT discussion
WTC, Tamil Nadu Agricultural University, Coimbatore	♦ Drip and sprinkler unit supply ♦ Technical support ♦ Training on micro irrigation
Indian Bank, Vriddhachalam	♦ Training programmes
AIR,Puducherry	♦ Helps to popularize the latest technology

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

Name of the scheme	Role of KVK	Date/ Month of initiation	Funding agency	Amount (Rs.)
NADP – SSI Training	• Organising training programmes • Conducting demonstrations • Exposure visits	**July'15 to August '15**	NADP- State Government of Tamil Nadu	3,19,200

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 2014-15

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	10 8	-	-
02	Research projects	-	-	-	-
03	Training programmes	➢ Training to farmers	17	17	

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 17 batches of training on " Sustainable Sugarcane Initiatives" to the beneficiary farmers recommended by the Joint Director of Agriculture, Cuddalore. The trainee farmers were taught on SSI Principles and practices, precision farming in sugarcane, Integrated weed and nutrient management, Crop boosters for increasing the productivity, Integrated pest and disease management, protray nursery raisning and their their maintenance, Planting methods and lay out of pipelines for drip irrigation and exposure visit to successful entrepreneurs of sugarcane by SSI. Hands on training were given to farmers in KVK demo unit.

Schedule of training

The training on SSI was conducted during July and August 2015 in 17 batches on the dates viz.,.6.7.15 & 7.7.15, 10.7.15 & 11.7.15, 15.7.15 & 16.7.15, 23.7.15 & 24.7.15, 4.8.15 & 5.8.15, 6.8.15 & 7.8.15.

Venues of training

We conducted 17 trainings at KVK, Vriddhachalam.

Selection of trainees

Totally 420 farmers were trained @ 25 farmers/batch. Farmers were selected based on recommedndation list received from the State Department of Agriculture, Cuddalore and experience in agri business and commodity interest group and farmers producer club members.

Resource persons for the training

The KVK and RRS scientists were fully utilized as resource persons for all the 17 batches of trainings. Besides scientists, farmers followed SSI technology of the Cuddalore district , producer club president and self help group members were also engaged as resource persons for the training programme.

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 single chip bud of sugarcane
- Demonstration of protray based seedling raise using single chip bud of sugarcane and their maintenance in nursery
- Demonstration of planting of single budded seedlings of sugarcane in field
- Group discussion involving to share their experience
- Hands of exercise in the KVK shadenet demonstration unit
- 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.

Feedback from farmers

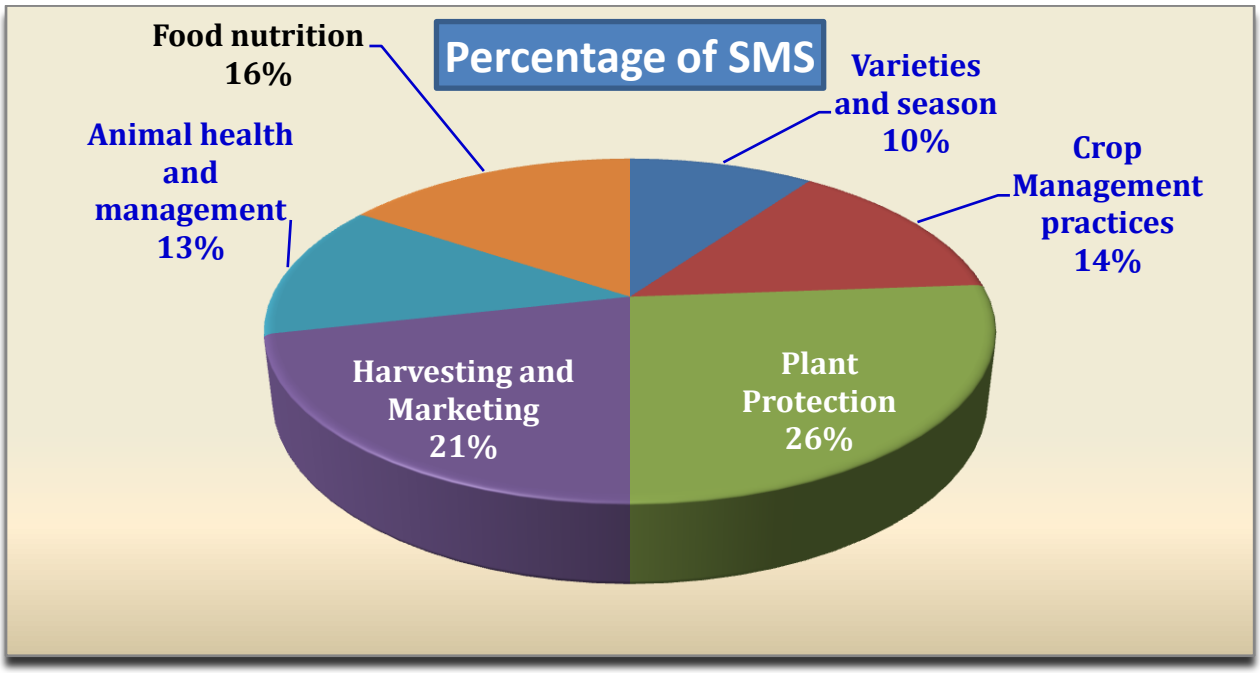
At the end of training a feedback session was conducted to all farmers and their feedbacks on the training were obtained.

1. The training imparted a very good knowledge about SSI technology and their benefits
2. Farmers felt that SSI technology may give higher yield and income
3. Farmers need quality materials for installation of drip irrigation because by subsidy they will installed low quality material by private companies
4. Farmers feel that for precision farming in horticultural crops and sugarcane quality water soluble fertilizer should be supplied by the University through KVKs
5. Farmers felt that there is no knowledge about funding and subsidies given by the central government and NABARD for formation of federation and producer company under the company act limited
6. Farmers felt that cold storage godown should installed atleast one per block for storing the horticultural produce based on the production of their produce to avoid price fluctuation and continuous supply to the consumers

7. Farmers feel that there is no cooperation among the farmers for fixation of price for their produce because of the middlemen in their market
8. From the training, farmers feel that we have to form farmers producer club, federations and producer company for fixing price for their produce by own and to avoid middlemen in market structure
9. Farmers felt that commodity group formation is a very good approach for selling their agriculture products with good margin.
10. Farmers were confident in getting information about DEMIC from Agri-Tech Portal.
11. Farmers were confident and interested in forming commodity groups in their crop of interest.

12. G Kisan Mobile Advisory Services

A mobile advisory account has been created at the farmers' portal (KMAS) during 2015-16. 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	-	-	11837	-
2.	Goat shed	2009	-	Tellicherry Goat	Tellicherry Goat	5 nos.		-	For Demo purpose
3.									
4.	Vermicompost	2012	-	Vermicompost	Vermicompost	1160 kgs	-	11600	-
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	-	-	-	
				Green chillies	Arka Meghna	-	-	-	
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.	28	-	-	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.	Cost of inputs	Gross income
Blackgram	14.10.15	11.01.16	0.75 ac	MDU 1	Seeds	116	Rs./kg	9280

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
2.	Vermicompost	1160kgs	Rs.10/kg	Rs.11600/-	-

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1.	Goat	Tellicherry	Goat	5 nos	-	-	For demo purpose

13.E. 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 2015	4	12	-
May 2015	4	14	-
June 2015	-	9	-
July 2015	122	31	-
August 2015	131	17	-
September 2015	2	8	-
October 2015	2	2	-
November 2015	10	26	-
December 2015	21	5	-
January 2016	25	2	-
February 2016	50	5	-
March 2016	-	-	-

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

PART XIV - FINANCIAL PERFORMANCE

14.A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India						
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 2015-16 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	9478000	10827958	11499396
2	**Traveling allowances**	100000		100000
		-		-
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	75000	-	75000
B	POL, repair of vehicles, tractor and equipments	100000	-	100000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	50000	-	50000
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	32000	-	32000
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	194000	-	100000
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	94000	-	94000
	Integrated Farming system		-	
G	Training of extension functionaries		-	
H	Maintenance of buildings		-	
I	Extension activities	50000	-	50000
J	Farmers Field School		-	
K	Library	5000	-	5000
TOTAL (A)		600000		600000
B. Non-Recurring Contingencies				
1	Works	-	-	-
2	Equipments including SWTL & Furniture	-	-	-
3	Vehicle (Four wheeler/Two wheeler, please specify)	-	-	-
4	Library (Purchase of assets like books & journals)	-	-	-
TOTAL (B)		-	-	-
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		10178000	10827958	12199396

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2013 to March 2014	439349.72	138650	379229	198770.72
April 2014 to March 2015	198770.72	120615	115619	203316.72
April 2015 to March 2016	203316.72	284214	365929	391988.73

5. Details of HRD activities attended by KVK staff during 2015-16

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. S. Kannan	Programme Coordinator	Attended training programme on MDP on Newly recruited PC of KVK Phase I held at NAARM, Hyderabad	NAARM training at Hyderabad	15.04.15 to 03.05.15
		Attended training programme on MDP on Newly recruited PC of KVK Phase II held at Best KVK of Nimpith, West Bengal	Nimpith, West Bengal	08.05.15 to 23.05.15
		Attended training programme on MDP on Newly recruited PC of KVK Phase III held at ZPD office ICAR, Zone VIII, Bangalore	Bangalore	08.06.15 to 12.06.15
Dr.K.Natarajan	SMS(Seed Science and technology)	Social media for effecting sharing of agricultural knowledge	TNAU, Coimbatore	09.06.15 to 11.06.15
		To arrange exhibition at AGRI INDEX held at CODISSIA, Coimbatore	CODISSIA, Coimbatore	16.07.15 to 21.07.15
		KVK – National conference	Patna, Bihar	24.07.15 & 27.07.15
		Management Skills for Convergence in Agricultural Extension to be held at MANAGE, Hyderabad	Hyderabad	24.08.15 to 27.08.15
		FPO - training	KVK, Namakkal	11.09.15
Dr. A.Ramesh Kumar	SMS(Horticulture)	Orientation programme on mandated activities of KVKs , Phase I	DOEE, TNAU, Coimbatore	14.09.15 to 16.09.15

Tmt.G.Porkodi	SMS(Soilscience)	Orientation programme on mandated activities of KVKs , Phase I	DOEE, TNAU, Coimbatore	14.09.15 to 16.09.15
Tmt.G.Porkodi	SMS(Soilscience)	Administrative training for academic staff	TNAU, Coimbatore	21.09.15 to 23.09.15
Dr.K.Venkattalakshmi	SMS(Agronomy)	Recent advances in groundnut production technologies	RARS, Tirupathi	25.09.15 to 15.11.15
Dr. A.Ramesh Kumar	SMS(Horticulture)	Agro forestry Policy , 2014	FC & RI, Mettupalayam	10.12.15 to 11.12.15
Dr. T. Saravanan	SMS(Plant pathology)	Orientation programme on mandated activities of KVKs , Phase I	DOEE, TNAU, Coimbatore	14.09.15 to 16.09.15
Dr.M.Nirmala Devi	SMS(Agrl. Extension)	Oilpalm production technologies	KVK, Tindivanam	04.11.15 to 05.11.15
Dr.K.Venkattalakshmi	SMS(Agronomy)	Oilpalm production technologies	KVK, Tindivanam	04.11.15 to 05.11.15
Dr.K.Venkattalakshmi	SMS(Agronomy)	Agro forestry model –establishment and management	IFGTB, Coimbatore	18.11.15 to 20.11.15
Dr.T. Saravanan	SMS(Plant pathology)	Biogas production technology	TNAU,Coimbatore	07.12.15 to 11.12.15
Tmt.G.Porkodi	SMS(Soilscience)	Workshop cum training programme on Rabi pulses	KVK, Madurai	28.01.16 to 29.01.16
Dr.K.Natarajan	SMS(Seed Science and technology)	First KVK symposium for effective transfer of technology application and research	UAS, Dharwad	18.01.16 to 21.01.16

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