



ANNUAL REPORT 2016-17

(FOR THE PERIOD FROM APRIL 2016 TO MARCH 2017)

KRISHI VIGYAN KENDRA (NAGAPATTINAM)

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
ICAR Krishi Vigyan Kendra Tamil Nadu Agricultural University, Sikkal-611108 Nagapattinam	04365 – 246266	kvksikkal@tnau.ac.in	www.kvknagapattinam.com

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

Address	Telephone	Fax		
Tamil Nadu Agricultural University Coimbatore – 641 003	0422-2431222	91- 422-2431672	vc@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.A.Anuratha	-	9865145075	anurakrish@yahoo.com

1.4. Year of sanction: 2004

1.5. Staff Position (as 31st March 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M / F	Discipline	Highest Qualification	Pay Scale	Date of joining KVK	Permanent /Temporary	Category
1	Programme Coordinator	Dr. A. Anuratha	Programme Coordinator	F	Soil Science	Ph.D	15600-39100+7000	30/12/2009	Permanent	OBC
2	SMS	Dr.M.Tamilselvan	Subject Matter Specialist	M	Horticulture	Ph.D	15600-39100+7000	10/04/2015	Permanent	SC
3	SMS	Dr.P.Kamaraj	Subject Matter Specialist	M	Agricultural Engineering	Ph.D	15600-39100+7000	15/06/2015	Permanent	SC
4	SMS	Dr. J. Thilagam	Subject Matter Specialist	F	Agricultural Extension	Ph.D	15600-39100+6000	19/07/2014	Permanent	OBC
5	SMS	Dr. R. Ravi	Subject Matter Specialist	M	Forestry	Ph.D	15600-39100+6000	19/07/2014	Permanent	OBC
6	SMS	Dr. M. Alagar	Subject Matter Specialist	M	Agricultural Entomology	Ph.D	15600-39100+6000	01/09/2014	Permanent	SC
7	SMS	Dr. J. Selvi	Subject Matter Specialist	F	Home Science	Ph.D	15600-39100+6000	17/09/2014	Permanent	OBC
8	Programme Assistant (Lab Tech.)/T-4	Mr.V.Gnanabharathi	Programme Assistant (Technical)	M	Agriculture	B.Sc, (Agri)	9300-34800+4400	05/06/2007	Permanent	SC
9	Programme Assistant (Computer)/ T-4	Er. R. Sakunthala	Programme Assistant (Computer)	F	Computer Science	B.E (Agri), MCA	9300-34800+4400	03/12/2008	Permanent	OBC
10	Programme Assistant/ Farm Manager T-4	Mr.R.Vedharethinam	Farm Manager	M	Agronomy	M.Sc, (Agri)	9300-34800+4400	04/06/2007	Permanent	OBC
11	Assistant	Th. E. Sivanesan	Superintendent	M	-	-	9300-34800	20/06/20	Permanent	OBC

							+4800	13		
12	Jr. Stenographer	S. Chitradevi	Assistant	F	-	-	5200-20200 +2800	20/04/20 15	Permanent	OBC
13	Driver	Vacant	----							
14	Driver	Mr.C.Veerakumar	Agri. Engg. Supervisor	M	-	-	9300- 34800+420 0	08/07/20 13	Permanent	OBC
15	Supporting staff	Mr.A.Ravi	Office Assistant	M	-	-	9000 (consltd)	01/12/20 11	Temporary	SC
16	Supporting staff	Mr.K.Krishnasamy	Office Assistant	M	-	-	9000 (consltd)	01/12/20 11	Temporary	OBC

1.6. Total land with KVK (in ha) : 22.6 ha

S. No.	Item	Area (ha)
1	Under Buildings	2.40
2.	Under Demonstration Units	3.60
3.	Under Crops	16.60
4.	Orchard/Agro-forestry	0.00
5.	Others	0.00
Total		22.6

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs. in Lakhs)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	02/03/2009	548	41.65	-	-	-
2.	Farmers Hostel	ICAR	09/03/2009	300	26.38	-	-	-
3.	Staff Quarters	ICAR	19/03/2009	400	33.30	-	-	-
4.	Rain Water harvesting system	Others (AED)	16/03/2007	2400	0.80	-	-	-
5	Threshing floor	ICAR	21/01/2015	900	3.00	-	-	-
6	Fencing	ICAR	16/04/2014	-	5.00	-	-	-
7	SWTL	ICAR	31/03/2011	-	10.00	-	-	-
8	PHDF	ICAR	23/05/2012	-	10.00	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Four Wheeler Bolero Jeep	2004	4,88,210	221234	Poor performance
Two Wheeler (TVS – star city)	2006	39,641	86242	Good condition
Two Wheeler (Suzuki Access 125)	2009	49,651	49153	Good condition
Tractor	2005	345607	2591.3 hrs	Good condition

C) Equipments & AV aids

Name of the equipment	Cost (Rs.)	Purchased date	Present status
Desktop computer-Hp pavilion	48750	2005	Not in use

COMPAQ- Desktop computer with 17 “ Sony TFT monitor, 0.6 KV Numeric UPS	93000	2007	Not in use
Digital Visible Spectrophotometer	39104	2011	Good Condition
Digital pH meter “Elico” Make	5970	2011	Good Condition
All Glass Single Distillation unit	36400	2011	Good Condition
Khan Shaker “Labline”	20800	2011	Good Condition
Hot air oven	17680	2011	Good Condition
Hot plate	7956	2011	Good Condition
Willey mill	32760	2011	Good Condition
Water Bath	7249	2011	Good Condition
UP based Flame Photometer “Elico” Make	45240	2011	Good Condition
Digital conductivity meter “Elico” Make	11326	2011	Good Condition
Electronic Top loading balance “Cyberlab”	6760	2011	Good Condition
Electronic Top loading balance “Shimadzu”	20592	2013	Good Condition
Water and Soil analysis kit	19750	2011	Good Condition
Digestion system (Kelplus)	112216	2011	Good Condition
Distillation system (Kelplus)	182936	2011	Good Condition
Instrument table	78000	2011	Good Condition
Rack,Almirah, Angle Iron rack	70000	2011	Good Condition
Soil and Plant storage cabin	100000	2011	Good Condition
Wash basin, sink and exhauster fan	70000	2011	Good Condition
Servo relay stabilizer – 2 Kva	75000	2011	Good Condition
Micropipette	3600	2011	Good Condition
Buchner funnel with flask	2000	2011	Good Condition
Titration unit	10000	2011	Good Condition
Vacuum pump	5000	2011	Good Condition
HCL Computer with printer	37600	2011	Good Condition
1 ton AC	19750	2011	Good Condition
Vertical stirrer	6500	2011	Good Condition
Electric muffal furnace	8892	2011	Good Condition
Remi model centrifuge	18946	2011	Good Condition
Laboratry incubator	16604	2011	Good Condition
Fire extinguisher	4500	2011	Good Condition
Soxhlet extraction mantle	5187	2011	Good Condition
Remi make cyclo mixer	4000	2011	Good Condition
Invertor	8650	2011	Good Condition
Battery	9850	2011	Good Condition
Executive chair netted	5800	2011	Good Condition
Computer table with cop board	4200	2011	Good Condition
Wall storage cup board	21250	2011	Good Condition
Wall side storage cabinet	5312	2011	Good Condition
Storage cabinet	44837	2011	Good Condition
Cabinet for conditioned storage of plant samples	10200	2011	Good Condition

Slotted angle iron rack	4250	2011	Good Condition
Steel Almirah	44200	2011	Good Condition
Revolving stool	7800	2011	Good Condition
Sink unit	36771	2011	Good Condition
Exhaust fan	12240	2011	Good Condition
Work table	9500	2011	Good Condition
Laboratory revolving chair	5658	2011	Good Condition
Steel senior plain cup board	36473	2011	Good Condition
Instrument table	69333	2011	Good Condition
Wall table	50825	2012	Good Condition
Sink with table	10750	2012	Good Condition
Revolving stools	6500	2012	Good Condition
Vortex mixer	6500	2012	Good Condition
Shaker	13388	2012	Good Condition
Water path	4620	2012	Good Condition
Split A/C with accessories	43300	2012	Good Condition
Vertical blinds	25500	2012	Good Condition
Separator	15500	2012	Good Condition
Electrical installation	5670	2012	Good Condition
Wall cupboard	24150	2012	Good Condition
Auto clave	28000	2012	Good Condition
Induction hot plate	3832	2012	Good Condition
Analytical balance	23100	2012	Good Condition
Magnetic stirrer	4725	2012	Good Condition
Laminar Air flow chamber	27300	2012	Good Condition
Laminar Air flow chamber	27300	2012	Good Condition
Thermo hygrometer	945	2012	Good Condition
Deep freezer	20475	2012	Good Condition
Stereo Zoom microscope	81900	2012	Good Condition
Stereo Zoom microscope	81900	2012	Good Condition
Stereo Zoom microscope	81900	2012	Good Condition
Hot air oven	18900	2012	Good Condition
Magnifer	4988	2012	Good Condition
B.O.D. Incubator	3600	2012	Good Condition
Digital pH meter	6300	2012	Good Condition
Dessicator (Table top plastic mount)	1575	2012	Good Condition
Dessicator (Table top plastic mount)	1575	2012	Good Condition
Refrigerated Centrifuge	149500	2012	Good Condition

D.O. Meter	9923	2012	Good Condition
U.V. Chamber	6825	2012	Good Condition
Display cabinet	25200	2012	Good Condition
Digital moisture meter	80950	2012	Good Condition
Cold water supplier	39950	2012	Good Condition
UPS (for Data processing system)	6700	2012	Good Condition
Refrigerator	17025	2012	Good Condition
Single glass distillation unit	45900	2012	Good Condition
Data processing system (one desktop, HP Colour printer)	90000	2012	Good Condition
Polarimeter	2999.85	2012	Good Condition
Force air circulator	11550	2012	Good Condition
Micro wave oven	5775	2012	Good Condition
Micro pipette and pipette holder	4200	2012	Good Condition
Colony counter	4935	2012	Good Condition
Portable Auto clave	4620	2012	Good Condition
SMS room partitioning	9180.5	2012	Good Condition
Desktop computer-Hp pavilion	48750	2005	Not in use
COMPAQ- Desktop computer with 17 " Sony TFT monitor, 0.6 KV Numeric UPS	6500	2007	Not in use
COMPAQ- Desktop computer with 17 " Samsung TFT monitor, 0.6 KV Numeric UPS	46500	2007	Not in use
Apple i Mac work station	56000	2009	Good Condition
COMPAQ-Laptop	49400	2007	Good Condition
Hp laser printer-1010	8800	2007	Good Condition
TOSHIBA e studio 160- Copier cum printer	71400	2005	Not in use
Printer -HP-Colour Inkjet printer 3920	2600	2006	Good Condition
SAMSUNG Laser printer ML 1610	4925	2008	Not in use
SAMSUNG SCX4521-F fax cum printer	14400	2009	Good Condition
SAMSUNG Laser printer ML 1666	6800	2011	Not in use
Printer -HP-Laser jet 1020 plus	6450	2012	Good Condition
LCD projector SANYO- PLC XW 55	53500	2007	Good Condition
LCD projector SANYO- PLC XW 55	53500	2007	Good Condition
Scanner -UMAX ASTRA 4100	7150	2005	Good Condition
UPS numeric 1 KV extended battery	10250	2005	Not in use
UPS -1 KVA APC back BR 1000	7650	2009	Not in use
APC battery back BR	6300	2009	Not in use
UPS- numeric 1 KVA (Digital 1000 plus)	4750	2011	Not in use
GIGABYT key board with mouse	790	2008	Good Condition

Mini lab Soil testing Kit	75000	2016	Good Condition
SLR Digital camera	40000	2016	Good Condition
On line UPS	34098	2016	Good Condition
HP 1015 printer			

1.8. Details SAC meeting conducted in 2016-17: 6th SAC - 23.09.2016

Sixth Scientific Advisory Committee meeting was conducted on 23.09.2016 at KVK, Sikkal, Nagapattinam. The meeting was started with prayer. The member secretary of SAC and Programme Coordinator of KVK Dr. A. Anuratha welcome the participants. The meeting was conducted under the chairmanship of the Director of Extension Education Dr. H. Phillip, TNAU, Coimbatore. The Programme Coordinator of KVK, Sikkal Dr. A. Anuratha presented the fifth SAC meeting recommendations and Action taken. The Subject Matter Specialist of KVK presented last year individual activities like OFTs, FLDs and Extension activities (2015-16). The participants from different departments including ATARI Principal Scientist Dr. M. J. Chandre Gowda shared their comments and suggestions.

List of Participants of 6th SAC

Official Members	1.	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore
	2.	Dr. M.J. Chandre Gowda Principal Scientist, ATARI, Bangaluru
	3.	Dr. M. Nagoor Meeran Director of Extension Education, TNFU, Nagapattinam
	4.	Dr. A. Anuratha Programme Coordinator, KVK, Sikkal
	5.	K. Vijaya kumar Deputy Director of Agriculture (GOI), Nagapattinam
	6.	Dr. A. Sivaramakrishnan Regional Joint Director, Animal Husbandry, Nagapattinam
	7.	V. G. Sankaran LDM, IOB, Nagapattinam
	8.	D. Ganesh AGM, NABARD, Nagapattinam
	9.	M. Seyalarasan Lead Bank Officer, IOB, Nagapattinam
	10.	R. Vidhyalakshmi Scientist, IICPT, Thanjavur
	11.	Dr. S. Natarajan Principal Scientist, IARI-RBGRC, Aduthurai
	12.	E.B. Maniraj District Project Manager, Puthuvazhvu Project, Nagapattinam

	13.	K. Muniyappan Assistant Project Officer, Mahalir Thittam Nagapattinam
	14.	M. Sivakumar Assistant Director of Fisheries, Nagapattinam
	15.	Dr. P. Chokalingam, Veterinary Surgeon Cattle Breeding and Fodder development, Nagapattinam
	16.	Dr. M. Vinothini, Assistant Professor VUTRC, Nagapattinam
	17.	Dr. R. Divya, Horticulture Officer Kelaiyur block, Nagapattinam
	18.	M. Jayameena District Social Welfare Officer, Nagapattinam
	19.	V. Kamaraj, Junior Engineer Dept. of Agricultural Engineering, Nagapattinam
	20.	A.Venkatesan, Assistant Engineer, District Industries Centre Nagapattinam
	21.	D. Kumaresan, Bedroc, Kadampadi Nagapattinam
	22.	S. Sivaprakasam, EA, Doordharsan, Sikkal, Nagapattinam
	23.	D. Senthil kumar Programme Executive All India Radio, Karaikal
	24.	R. Senthilkumaran All India Radio, Karaikal
	25..	V. Gopinath Forest Range Officer, Nagapattinam
Non official Members (Farmers)	1.	G. Jeevanandham S/o. N. Ganapathy, Nangudi village Kilvelur
	2.	T. Prabhakaran S/o. Thangarasu , Orkudi, Kilvelur
	3.	R. Kasthuri Sirkali, Nagapattinam
	4.	Jacintha Joseph Velankanni
Other Farmers	1.	Joe Velu Velankanni
	2.	M. Pappaiyan Karapidagai village Nagapattinam
	3.	V.Dhanabalan Othiyathur, Kilvelur, Nagapattinam

Action taken on 6th SAC recommendation:

Sl. No.	6th SAC Recommendations	Proposed by	Action Taken
1.	More number of demonstrations and trainings on water management need to be conducted	Dr. Chandre Gowda Principal Scientist, ATARI, ZONE VIII, Bangalore	<ul style="list-style-type: none"> • Off campus training on Water management was conducted at Periyakuththagai on 25.1.2017 for 41 farmers • On campus training on water management in agricultural crops on 17.03.2017 for 30 farmers • Demonstration on mobile sprinkler and boom sprayer on 17.03.2017.
2.	Demonstrations and trainings on Bee Keeping have to be conducted	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	--
3.	Issue training certificates to trainees for the trainings conducted by KVK	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	<ul style="list-style-type: none"> • Certificates issued to 58 trainees during the On -Campus training on “Operation and maintenance of agricultural machines” held on 20.10.016. • Issued certificates to the Anganwadi workers participated in KVK training on 29.11.2016 Nutritional importance and health aspects training • Issued certificates to the students of ADM College for Women who participated competition conducted by KVK on 23.12.2016 in lieu of celebrating Jai Kisan Jai Vigyan and Technology Week • Certificates provided to the farmers who attended vocational training “Rearing of milch animals and fodder cultivation technology” on 23 & 24th March 2017. • This will be followed in all the trainings conducted at KVK
4.	More number of trainings on Post Harvest Technology need to be given	Ms. R. Vidyalakshmi Scientist, IICPT, Thanjavur	<ul style="list-style-type: none"> • Conducted training on Preservation technology and value addition in tomato Farmers & Self Help Group for 39 on 01.09.2016 at KVK, Sikkal. • Conducted training on “value

			<p>added products from fish and prawn (Fish pickle, prawn pickle, dry fish powder)” on 18.11.2016. SHG members – 57 at KVK, Sikkal.</p> <ul style="list-style-type: none"> • Post harvest technology, value addition and marketing for Extension Functionaries (14 Nos.), Dept. of Agricultural Marketing on 21.11.2016 at KVK, Sikkal. • Training was conducted on Preservation technology, value addition and marketing of vegetables and fruits for Women groups(82 members) at KVK, Sikkal On 26.12.2016. • Conducted training on value addition in fish and prawn SHG members on 10.01.2017 at KVK, Sikkal for 22 SHG members. • Conducted training on Value addition in rice, pulses, fruits and vegetables ATMA farmers of on 21.02.2017 at Vedaranyam block for 40 members. • Post harvest technology and value addition in pulses Keelaiyur block farmers on 23.02.2017 at Thirukuvalai for 100 farmers. • Conducted pulses and value addition training to Sirkali block farmers on 02.03.2017 at Sirkali, Neduvasal and Kokkur.
5.	Involve relevant line departments, banks in trainings to explain the Government schemes to the participants	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	<ul style="list-style-type: none"> • Mr. T. Ganesh, District Development Manager, NABARD, Nagapattinam was participated in the training on On campus training “Preservation Technology, Value Addition and Marketing of Vegetables and Fruits” and exhibited value added products from rice, pulses, vegetables and fruits at KVK, Sikkal on 26.12.2016 for 82 farmers • In the On campus training on operation and maintenance of agricultural machineries,

			<p>Agricultural Engineering department officials were participated and explained the Government schemes to the trainees held on 20.10.2016.</p> <ul style="list-style-type: none"> Horticultural department officials were participated and explained the government schemes and success stories of farmers in bhendi cultivation during the field day on 17.11.2016 at Kameshwaram.
6.	Create awareness on ICT in Agriculture to the participants of training programmes	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Created awareness on ICT in Agriculture to the participants in Nine trainings conducted at KVK, Sikkal
7.	Send proposal to ATARI, Bangaluru for seed processing unit	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Under progress
8.	Conduct training programmes involving youth and conduct follow up study	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	-----
9.	Form whatapp group for farmers of Nagapattinam district	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Whatsapp group for farmers of Nagapattinam district was created on 23.01.2017 and technological information's are being shared very effectively 96 nos. of farmers are connected in this group.
10.	Recommend alternate varieties / management practices to control stem borer problem in brinjal	Dr. R. Dhivya Horticulture Officer Nagapattinam	Field diagnostic visit has been carried out on 02.11.2016 at Thandavamoorthy Kaadu village in Keelaiyur block of Nagapattinam district to identify the problem in birinjal. The team of scientists Dr. A. Anuratha, Programme Coordinator, KVK, Sikkal, Dr. K. Rajappan, Professor (Plant Pathology), TRRI, Aduthurai, Dr. M. Alagar, Assistant Professor (Agrl. Entomology) and Dr. M. Tamil Selvan, Assistant Professor (Horticulture) of KVK, Sikkal, Dr. Agila Devi, Assistant Professor (Plant Pathology) and Dr. K. Vanitha, Assistant Professor (Crop Physiology) of

			<p>TRRI, Aduthurai and Thiru Neethimanikam Assistant Director of Horticulture, Nagapattinam visited the farmers' field and indentified that it is a phomopsis blight caused by the fungus <i>Phomopsis vexans</i>.</p> <p>Relevant Management practices were suggested to the farmers.</p> <p>Report on field diagnostic visit was sent to the Director of Planning and Monitoring to publish in the TNAU Newsletter.</p>
11.	More number of trainings for value addition in fish has to be conducted	Dr. Nagoor Meeran Director of Extension Education, TNFU, Nagai	<ul style="list-style-type: none"> • Conducted training on “value added products from fish and prawn (Fish pickle, prawn pickle, dry fish powder)” on 18.11.2016. SHG members – 57 at KVK, Sikkal. • Conducted training on value addition in fish and prawn SHG members on 26.12.2016 at KVK, Sikkal for 82 SHG members. • Conducted training on value addition in fish and prawn SHG members on 10.01.2017 at KVK, Sikkal for 22 SHG members. • Conducted training on value addition in fish and prawn SHG members on 30.03.2017 at KVK, Sikkal for 23 SHG members
12.	Propose OFT / FLD in sugarcane and cotton	Mr. D. Ganesh, AGM NABARD, Nagai	---
13.	Promote <i>Bixa</i> and <i>Dalbergia sissoo</i> in Nagapattinam district in consultation with the Forest Scientists of FC & RI, MTP	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	<i>Dalbergia sissoo</i> tree seedling planted at KVK farm on 24.01.2017
14.	Display machineries and tools related to sowing to harvest in rice at KVK, Sikkal	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Preparation of posters related to rice cultivation from sowing to harvest is in progress..
15.	Develop suitable	Dr. H. Philip	Agro forestry model was developed at

	Agro Forestry model for Nagapattinam district at KVK, Sikkal	Director of Extension Education, TNAU, Coimbatore	KVK, Sikkal as demonstration unit to the farmers of Nagapattinam district with cultivation of Malaivembu in 10 cents and planting of Casuarina was completed in 0.5 acre and Ecalyptus planting in an area of 2.5 acres at KVK, Sikkal
16.	Open sales counter in front of KVK	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Purchase proposal approved for the purchase of Open Sales Counter.
17.	Include awareness on food safety and quality testing in home science training	Ms. R. Vidyalakshmi Scientist, IICPT, Thanjavur	<ul style="list-style-type: none"> • Awareness on food safety and quality testing is insisted in the home science training are as follows. • Conducted training on Preservation technology and value addition in tomato Farmers & Self Help Group for 39 on 01.09.2016 at KVK, Sikkal. • Conducted training on “value added products from fish and prawn (Fish pickle, prawn pickle, dry fish powder)” on 18.11.2016. SHG members – 57 at KVK, Sikkal. • Post harvest technology, value addition and marketing for Extension Functionaries (14 Nos.), Dept. of Agricultural Marketing on 21.11.2016 at KVK, Sikkal. <ul style="list-style-type: none"> • Training was conducted on Preservation technology, value addition and marketing of vegetables and fruits for Women groups (82 members) at KVK, Sikkal On 26.12.2016. • Conducted training on value addition in fish and prawn SHG members on 10.01.2017 at KVK, Sikkal for 22 SHG members. • Conducted training on Value addition in rice, pulses, fruits and vegetables ATMA farmers of on 21.02.2017 at Vedaranyam block for 40 members. • Post harvest technology and value addition in pulses Keelaiyur block farmers on 23.02.2017 at Thirukuvalai for 100 farmers.

			<ul style="list-style-type: none"> Conducted pulses and value addition training to Sirkali block farmers on 02.03.2017 at Sirkali, Neduvasal and Kokkur.
18.	Research has to be initiate to find the difference in vermicompost production from hybrid and indigenous breed cowdung	Dr. A. Sivaramakrishnan Regional Joint Director Animal Husbandry, Nagai	-
19.	Develop High density planting of mango in KVK, Sikkal	Th. Jeevanantham Farmer	<ul style="list-style-type: none"> Area for mango planting has been identified at KVK, Sikkal. Supply order has been placed for the purchase of mango grafts.
20.	Training on Fishery technology to be given	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Conducted On campus training on Rearing of Gift Tilapia fish culture in Farm pond on 03.01.2017 by involving TNFU, Nagapattinam.
21.	Steps to be taken to renovate the farmers hostel	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	USO received for Renovation of farmers hostel to the tune of Rs. 3,00,000/- . The work will be started soon.

PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
Rice based farming system is followed in this district	
1.	Rice – Rice – Rice fallow Pulse
2.	Rice – Rice – Rice fallow Cotton
3.	Rice – Rice – Groundnut / Sesame
4.	Rice – Rice – Sugarcane (3 years rotation)
5	Rice – Rice fallow pulses/ Cotton
6	Rice – vegetables / flower crops

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

S. No	Agro-climatic Zone	Characteristics
1	Cauvery Delta Zone	Nagapattinam is a coastal district of Tamil Nadu, lies between 100 80' and 110 28' in North Latitude and 760 34' and 750 53' in East Longitude. It is bounded on the North by Cuddalore, South by Palk Strait, West by Tiruvarur and on the East by Bay of Bengal
S. No	Agro ecological situation	Characteristics
1	Coastal Eco system	Nagapattinam is categorized as agro-ecological region 18, representing the Coastal eco-system-Eastern coastal plain, hot sub-humid to semi-arid eco-system with a growing period of 90 to 210 days

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Clay loam	High WHC	98,000
2.	Clay sandy loam	Medium WHC	55,000
3.	Sandy soil	Low WHC	35,000
Total			1,88,000

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

Crop	Area (ha)	Production (MT)	Productivity (Kg/ha)
Rice*	164436	506353	4031
Black gram*	43030	0.2395	549
Green Gram *	44299	0.2347	538
Sugarcane*	2712	2.02	75000
Ground Nut*	1479	0.04349	3000
Sesame*	37	0.000188	500
Coconut	4001	6.01 Lakh nuts	150 Nuts/tree/year
Vegetables	603	13024.8	21600
Cashew	1733	816.243	471
Mango	3031	20716.89	6835
Banana	584	23360	40000
Flowers	337	3605.9	10700

* Area, production and productivity of the crops not yet finalized so far...

(Source-Joint Director of Agriculture, Horticulture, Nagapattinam Dt.)

2.5. Weather data

Month	Rainfall (mm)	Temp (Max)	Temp (Min)	Relative Humidity (%)
April 2016	0.0	34.7	27.3	76.4
May 2016	199.2	37.1	27.8	74.1
June 2016	25.3	36.3	27.2	64.0
July 2016	31.8	36.8	26.7	55.8
August 2016	88.6	36.0	25.9	94.2
September 2016	41.4	33.2	25.2	97.0
October 2016	33.6	32.4	24.8	73.2
November 2016	202.6	25.4	21.3	43.2
December 2016	70.9	26.8	24.2	93.7
January 2017	133.1	25.2	17.8	73.0
February 2017	0.0	29.9	20.0	81.6
March 2017	91.4	31.7	24.1	88.2
Average	76.49	32.13	24.36	76.20
Total Rainfall	917.9			

Normal Annual Rainfall of the District: 1230 mm

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

Category	Population (Numbers)	Production (Numbers)	Productivity
Cow -Crossbred	203622	900000 litre	6 litre /day/animal
Cow- Indigenous	62645	90000	4 litre /day/animal
Buffalo-Crossbred	12080	65000	10 litre /day/animal
Sheep- Indigenous	7335	40000 kg	20 kg / animal
Goats- Crossbred	11493	10000 kg	20 kg / animal
Goats- Indigenous	423546	3500000 kg	20 kg / animal
Pigs-Crossbred	1153	18000	20 kg / animal
Pigs - Indigenous	1236	18000	20 kg / animal
Poultry-Hens- Desi Egg	279817	1492357 eggs	90 eggs /bird
Poultry-Hens- Desi-Meat	8837	7000 kg	1 kg / bird

Poultry-Hens-Improved Meat	0	0	0
Poultry -Hens-Ducks Eggs	4568	210000 eggs	70 eggs /bird
Turkey and others	458	21000 eggs	70 eggs /bird
Fish-Marine	-	61512 ton	-
Fish -Inland	-	7900 ton	-
Prawn		3.0 ton	

(Source: Department of Animal Husbandry and Fisheries, Nagapattinam)

2.7 District profile has been Updated for 2016-17 - Yes

2.8 Details of Operational area / Villages

Sl.No.	Taluk Name	Hobli/Block Name	Village Name	Since how long village covered	Major Crops	Major Problems	Identified Thrust Area
1	Nagapattinam	Nagapattinam	Akkaraipettai	2 years	Marine Fisheries	<ul style="list-style-type: none"> Lack of technical knowledge on preservation technology and non utilization of unsold fish and prawn 	<ul style="list-style-type: none"> Value addition
2		Nagapattinam	Poigainallur,	3 years	Vegetables, Ground nut and Mango,	<ul style="list-style-type: none"> Higher incidence of stem borer, shoot and fruit borer (30%) Indiscriminate use of insecticides (10 to 15 round of spray) 	<ul style="list-style-type: none"> ICM and IPM
3	Tranquebar	Sembanarkoil	Neduvasal	5 Years	Rice, Pulses	<ul style="list-style-type: none"> Lack of knowledge on eco friendly management of Pest and Disease in Rice No other alternate to BPT 5204 Non availability of green fodder Low yield of existing pulse variety 	<ul style="list-style-type: none"> Eco friendly pest Management in rice. Varietal introduction in rice. Fodder production. ICM in pulses.
4		Sembanarkoil	Anaikoil	2 years	Rice, Rice Fallow pulses and Ground nut	<ul style="list-style-type: none"> Improper Nutrient Management in Rice and Pulses Yield reduction due to pest and disease in 	<ul style="list-style-type: none"> INM in Rice ICM in pulses IPDM in rice

						major crops <ul style="list-style-type: none"> • Low yield of existing pulse variety 	
5	Sirkazhi	Sirkazhi	Radhanallur	2 Years	Rice, Pulses, Vegetables, Banana, Casuarina, Sugarcane	<ul style="list-style-type: none"> • Lack of suitable Agro forestry system • Non availability of green fodder throughout the year • Yield reduction due to Pest and Disease 	<ul style="list-style-type: none"> • Varietal Evaluation, Agro forestry, Fodder production, IPDM in rice
6	Thirukuvalai	Keelaiyur	Kameshwaram	2 Years	Vegetables, Ground nut, Mango, coconut and Casuarina	<ul style="list-style-type: none"> • Improper Nutrient Management in Maize & Coconut • Un awareness of salt tolerant crop • Yield reduction due to micronutrient deficiency in vegetables • Low yield of existing ground nut variety under rainfed condition 	<ul style="list-style-type: none"> • INM in Maize, Vegetables and Coconut, • Problem soil management, Varietal evaluation in groundnut
7		Keelaiyur	PR Puram,	2 years	Vegetables, Ground nut, Mango and coconut		
8	Mayiladuthurai	Kuthalam	Kokkur	2Years	Rice, Pulses	<ul style="list-style-type: none"> • Improper Nutrient Management in Rice and Pulses • Yield reduction due to Pest and Disease in Rice • Non availability of green fodder throughout the year 	<ul style="list-style-type: none"> • INM in rice and pulses, • IPDM in rice, • Fodder production
9	Kilvelur	Kilvelur	Agarakadambanur	5 Years	Rice, pulses	<ul style="list-style-type: none"> • Improper Nutrient 	<ul style="list-style-type: none"> • INM in rice and

10		Kilvelur	Anaimangalam	4 years	Rice, pulses	<p>Management in Rice, Pulses, & Coconut,</p> <ul style="list-style-type: none"> • No Other alternate to BPT 5204 in Samba • Un awareness of salt tolerant crop & bund tree cultivation • Yield reduction due to micronutrient deficiency in vegetables, • No alternate to existing composite carp culture. 	<p>pulses, Vegetables and coconut,</p> <ul style="list-style-type: none"> • Varietal evaluation in rice, • Problem soil management, • Fish culture
11	Vetharanyam	Vetharanyam	Vizhunthamavadi,	4 Years	Coconut, Mango, Tree crops, Vegetables, Maize	<ul style="list-style-type: none"> • Improper Nutrient Management in Maize & Coconut • Lack of suitable Agro forestry system in coastal areas and tree crops • Non availability of green fodder throughout the year • Lack of knowledge in value addition & marketing • Lack of entrepreneur activity among women 	<ul style="list-style-type: none"> • INM in Maize and coconut • Agro forestry, • Fodder production, • Value addition in Mango. • Entrepreneur development
12		Vetharanyam	Karuppampulam	1 year	Coconut, Mango, Tree crops, Vegetables,		

2.9 Priority thrust areas

S. No	Thrust Area
1.	Increasing the productivity of Rice and Pulses
2.	Maximizing the yield in vegetable crops
3.	INM and IPDM for Rice, Maize, Vegetables and Coconut
4.	Promoting saline tolerant crops in saline soils
5	Crop diversification
6	Ecological Pest management in rice
7	Agroforestry system
8	Production enhancement in coconut
9	Value addition in Millets, Vegetables and Fruits
10	Intercrop in Casuarina
11	Fish culture

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
7	7	35	35	13	13	155	155

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
50	67	3500	4379	500	564	5000	7369

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
150	182.18	3000	31706

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	-	5000	5786.5

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	No of Training (farmers)	No of Training (Youths)	No of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of live stock (No.)	Supply of bio products
1.	Varietal evaluation	Paddy	Yield reduction due to saline problem and usage of saline water for irrigation	Assessment of saline tolerant rice varieties for Nagapattinam District	-	2	-	2	Demo-1	TRY 3 Seed @ 40 Kg/ha, CSR-36 Seed @ 40 kg/ha, Gangavathy sona (GGV-05-01) Seed @ 40 kg/ha	-	-	<i>Pseudo monas</i> 15 kgs
2.	Varietal evaluation	Paddy	Severe incidence of BPH and BLB during Samba and Thaladi season (% damage- BPH: 32%, BLB: 13%)	Assessment of suitable BPH and BLB resistance rice varieties in Nagapattinam district	-	1	-	-	Demo-1	TKM 13 paddy seeds 80 kg Sampada paddy seeds 80 kg	-	-	<i>P. fluorescens</i> 2.5 kg /Ha
3	Varietal evaluation and ICM	Green gram	Non availability of suitable green gram varieties in rice fallow condition	Assessment of suitable Green gram varieties for Nagapattinam District	-	2	-	2	Demo-6	CO8 seed @ 25 kg/ha LGG 460 Seed @ 25 kg/ha	-	-	<i>Trichoderma viridi</i> 10 kgs

4	IPM in coconut	coconut	Low yield due red palm weevil damage - Crop loss : 30%	Assessment of Pheromone traps for the management of coconut red palm weevil through cluster approach	-	2	-	-	Demo-1	PCI pheromone trap @ one/ha CPCRI pheromone trap @ one/ha	-	-	-
5	Integrated Nutrient Management	Water - melon	Higher incidence of Flower dropping (18%) Unaware of Foliar application of Growth Regulators	Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam District	-	1	-	1	-	Watermelon Seeds (200 g)	-	-	Nitrobenzene - (1125 ml) Ethrel (750 ml)
6	Varietal Evaluation	Brinjal	Yield reduction due to existing low yielding local varieties	Assessment of Brinjal Hybrids for Nagapattinam district	-	1	-	1	-	COBH-2 seeds (200 g) Arka Navneeth (200g)	-	-	Pseudomonas (1 Kg) Trichoderma (1 Kg)
7	Integrated Nutrient Management	Fodder	Low milk yield and non-availability of green fodder	Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam District		2	-	-	Demo-1	COFS 31 multicut sorghum @ 5kg/ha SSG 59-3 (Meethi Sudan) @ 5kg/ha	-	-	-

8	Seed production	Rice	<ul style="list-style-type: none"> • Incidence of leaf folder, stem borer and false smut (32%) • Farmers searching alternate to BPT 5204 • Lack of quality seed of TKM 13 	-	Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam District	2	-	2	Field day-1, Demo-1	TKM 13 @ 40kg/ha	-	-	20 kg Pseudo monas @ 1kg/demo
9	INM	Rice	Lodging of rice crop (CR 1009, ADT 38) due to surface runoff and leaching of essential elements during flood (NE season) (Yield loss >40%)	-	Demonstration of Solublizing Bacteria application for preventing lodging of rice	3	-	1	Demo-3	-	-	-	100 kg of Silica Solublizing Bacteria @ 12.5 kg/ha and 100 kg of - K Solubilizing Bacteria @ 12.5 Kg/ha

10	IPM in Paddy	Paddy	Reduction in natural enemies due to indiscriminate use of pesticides. Lack of knowledge on eco friendly pest and disease management strategies.	-	Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy	1	1	-	Demo-1 Field day-1	Border crop seeds 100 g each	-	-	<i>T. japonicum</i> 5 cc <i>T. chilonis</i> 5 cc <i>P. fluorescens</i> 5 kg <i>L. lecanii</i> 5 kg/Ha.
11	Farm mechanization	Paddy	Labour shortage, Improper population, High wages of labour and High input cost	-	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	3	1	1	Demo -2	-	-	-	-
12	Varietal introduction and ICM	Cluster Bean	Lack of suitable varieties Low income in the existing varieties	-	Demonstration of newly released Cluster Bean Variety (MDU-1) in (Nagapattinam District	2	1	-	Demo 1	Cluster Bean Seeds @ 10 kg/ha	-	-	-
13	IPM for vegetables	Brinjal	Higher incidence of stem borer, shoot and fruit borer (30%) Indiscriminate use of insecticides (10 to 15 round of spray)	-	Demonstration of IPM strategies for Brinjal borers	1	1		Demo -1				

14	Varietal introduction and ICM	Kuthiraivali (Barnyard millet)	No alternate crop for rice in Kuruvai season and demand for minor millets	-	Demonstration of Kuthiraivali CO (KV) 2 in Nagapattinam District	1		1	Demo 1	Co (KV)2 @ 5 kg/ha			<i>Azospirillum</i> @1 kg/ha Phosphobacteria @ 1 kg/ha
15	Varietal introduction and ICM	Groundnut	<ul style="list-style-type: none"> Poor performance of existing groundnut variety Severe incidence of leaf miner, spodoptera, leaf spot and root rot leads to yield reduction (20%) 	-	Demonstration of ICM in Newly released Groundnut variety VRI 8 in Nagapattinam District	1	-	-	Demo-1 Field day -1	VRI 8 @ 125kg/ha			<i>Pseudomonas</i> @ 1kg/demo <i>Trichoderma viridi</i> 1 kg/demo
16	Varietal introduction and ICM	Bhendi	Lack of suitable Variety/ hybrid in Bhendi and Farmers expecting good yield & resistant variety to YMV virus	-	Demonstration of newly released Bhendi Hybrid (COBh H-4) in Nagapattinam District	2	-	2	Demo 2, Field day 1	COBH4 Bhendi seeds @10kg/ha	-	-	-
17	Varietal introduction	Fodder cowpea	Low yield of milk due to the non availability of green fodder Non-availability of fodder cowpea	-	Demonstration of Fodder Cowpea CO 9 in Nagapattinam district	1	-	-	Demo-1	Fodder cowpea seed- 5 kg	-	-	<i>Rhizobium</i> – 1 kg
18	Fisheries	Fish	No alternate to existing composite carp culture and low income in the existing carp culture	-	Demonstration of Gift Tilapia culture in farm pond	1	1	-	Demo 1	-	-	Gift Tilapia 1000 nos/ demo	-

19	Animal Husbandry	Cattle	Low yield of milk due to mineral deficiency. Higher occurrence of infertility rate among dairy cattle (25%) Lack of awareness on TANUVAS Mineral Mixture	-	Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cattle	1	-	-	Demo-1	TANUVAS Mineral Mixture @ 50gm/animal/day	-	-	-
20	Agro Forestry	Casuarina + Marigold	Lack of awareness in suitable Casuarina based Agroforestry system	-	Demonstration of high yielding African marigold variety MDU 1 under Casuarina in Nagapattinam district	4	-	2	Demo-2	Marigold seeds 625 grams/ ha	-	-	-

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 saline tolerant rice varieties for Nagapattinam District	TNAU 2012, CSSRI, UAS 2013	Paddy	5	-	2	Demo-1
2.	Assessment of suitable BPH and BLB resistance rice varieties in Nagapattinam district	TNAU 2014, IIRR 2014	Paddy	5	-	1	Demo-1
3	Assessment of suitable Green gram varieties for Nagapattinam District	TNAU 2013, ANGRAU 2009	Green Gram	3	-	2	Demo-6
4	Assessment of Pheromone traps for the management of coconut red palm weevil	PCI, CPCRI 2014	Coconut	5	-	2	Demo -1
5	Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam District	OAU 2012, TNAU 2013	Water melon	5	-	1	-
6	Assessment of Brinjal Hybrids for Nagapattinam district	TNAU 2009, IIHR	Brinjal	5	-	1	-
7	Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam District	TNAU 2013, CCSHAU 1977	Fodder	5	-	2	Demo-1

8	Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam District	TNAU, 2014,	Paddy	-	20	2	Demo-1 Field day-1
9	Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice	IRRI 2007	Paddy	-	20	3	Demo-3
10	Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy	TNAU , 2012	Paddy	-	10	1	Demo-3 Field day-1
11	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	TNAU, 2006,	Paddy	-	10	3	Demo-2
12	Demonstration of cluster bean variety MDU 1 in Nagapattinam District	TNAU 2015	Cluster bean	-	10	2	Demo-1
13	Demonstration of IPM strategies for Brinjal borers	TNAU, 2013	Brinjal	-	10	1	Demo-1
14	Demonstration of Kuthiraivalli CO(KU)2 in Nagapattinam District	TNAU, 2013	Banyard Millet	-	10	1	Demo-1
15	Demonstration of ICM in Groundnut variety VRI 8 in Nagapattinam District	TNAU 2016	Ground nut	-	10	1	Demo-1 Field day-1
16	Demonstration of Bhendi Hybrid COBH-4 in Nagapattinam District	TNAU 2016	Bhendi Hybrid	-	10	2	Demo-2 Field day 1
17	Demonstration of Fodder Cowpea CO 9 in Nagapattinam district	TNAU 2016	Fodder cowpea	-	20	1	Demo-1
18	Demonstration of Gift Tilapia culture in farm pond	TNFU	Fish culture	-	5	1	Demo-1
19	Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cattle	TANUVAS	Milch animal	-	10	1	Demo-1
20	Demonstration of high yielding African marigold variety MDU 1 under Casuarina based Agro forestry system	TNAU	Agro forestry	-	10	4	Demo-2

PART IV - On Farm Trial

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Fodder crops	Tuber Crops	TOTAL
Varietal Evaluation	2	-	1	-	1	-	-	-	1	-	5
IPM	-	-	-	-	-	-	-	1		-	1
INM	-	-	-	-	1	-	-	-		-	1
Total	2	-	1	-	2	-	-	1	1	-	7

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: NIL

4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers	Area in ha
Varietal Evaluation	Paddy	Assessment of saline tolerant rice varieties for Nagapattinam District	5	5	4
Varietal Evaluation	Paddy	Assessment of suitable BPH and BLB resistance rice varieties in Nagapattinam district	5	5	2
Varietal Evaluation	Green Gram	Assessment of suitable Green gram varieties for Nagapattinam District	5	5	2
IPM	Coconut	Assessment of Pheromone traps for the management of coconut red palm weevil	5	5	2
INM	Water melon	Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam District	5	5	1
Varietal Evaluation	Brinjal	Assessment of Brinjal Hybrid for Nagapattinam district	5	5	1

Varietal Evaluation	Fodder sorghum	Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam District	5	5	0.5
Total			35	35	12.5

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

OFT-1. Assessment of saline tolerant rice varieties for Nagapattinam District

Crop/enterprise	Farmin g situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter				Results of assessment	Feed back from the farmer	Any refinement needed	Justification for refinement
							TO1	TO2	TO3	TO4				
1	2	3	4	5	6	7	TO1	TO2	TO3	TO4	9	10	11	12
Paddy	Irrigated	Yield reduction due to saline problem and usage of saline water for irrigation	Assessment of saline tolerant rice varieties for Nagapattinam District	5	TO1-Farmer Practice	pH,	7.2	7.2	7.4	7.5	TRY 3, CSR 36 and Gangavathi Sona varieties are performed in saline soil condition more than EC value of 2.5 and	TRY 3, CSR 36 and Gangavathi Sona varieties are tolerate the saline soil condition and	-	-
					TO 2- TRY 3 Seed @ 40 Kg/ha	EC, of initial soil	2.2	2.2	2.2	2.2				
					TO3- CSR-36 Seed @ 40 kg/ha	Plant height (cm)	110.2	114.2	105.5	95.0				
					TO4-Gangavathy sona Seed @ 40 kg/ha	No. of panicles/m ²	345	356	358	355				

						Yield (Kg/ha)	4150	5150	4950	4750	Try 3, CSR 36 better by producing higher yield than gangavathi sona	Gangavathi Sona are fine rice compared to TRY3		
--	--	--	--	--	--	---------------	------	------	------	------	---	--	--	--

Technology Assessed	Source of Technology	Production	Unit	Net Return in Rs. / unit	BC Ratio
13	14	15	16	17	18
TO1: Farmers' Practice	-	41.50	q/ha	25250	1.68
TO2: TRY 3 Seed @ 40 Kg/ha+ Pseudomonas @ 2.5 kg/ha	TNAU 2012	51.50	q/ha	35100	1.94
TO3: CSR-36 Seed @ 40 kg/ha +Pseudomonas @ 2.5 kg/ha	CSSRI	49.50	q/ha	35000	1.94
TO4: Gangavathy sona+ Pseudomonas @ 2.5 kg/ha	UAS, Raichur	47.50	q/ha	33500	1.90

OFT 2. Assessment of suitable BPH and BLB resistance rice varieties in Nagapattinam 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	Feed back from the farmer	Any refinement needed	Justification for refinement
							TO1	TO2	TO3				
1	2	3	4	5	6	7	TO1	TO2	TO3	9	10	11	12
Rice	Irrigated	Severe incidence	Assessment of	5	TO 1. Farmers Practice - BTP 5204	PDI of BLB	11.03	1.55	3.76	TKM 13 paddy	Yield was higher,	-	-

		of BPH and BLB during Samba and Thaladi season	suitable BPH and BLB resistance rice varieties in Nagapattinam district		To 2. TKM 13 (TNAU, 2014) -130 days, Moderately resistant to BPH & BLB TO 3. Sampada rice (IIRR, 2014) -135-140 days	BPH incidence (%)	7.34	0.75	1.56	variety was performed better than Sampada variety by recording the lowest per cent disease index of BLB and per cent BPH incidence	need less pesticide application		
--	--	--	---	--	---	-------------------	------	------	------	--	---------------------------------	--	--

Contd..

Technology Assessed	Source of Technology	Production	Unit	Net Return in Rs. / unit	BC Ratio
13	14	15	16	17	18
TO1: Farmers' Practice – Using BPT 5204 (susceptible for pests and diseases)	-	39.56	Q/Ha.	16152.30	1.3
TO2: TKM 13 (TNAU, 2014) -130 days, Moderately resistant to BPH & BLB	TNAU 2014	44.41	Q/Ha.	28758.50	1.8
TO3: Sampada rice (IIRR, 2014) -135-140 days, Moderately resistant to BPH & BLB	IIRR, 2014	41.41	Q/Ha.	24448.50	1.70

OFT 3. Assessment of suitable Green gram varieties for Nagapattinam District

Crop/ enter prise	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 refine ment needed	Justifi cation for refine ment
							TO1	TO2	TO3				
Green Gram	Rice fallow	Non availability of suitable green gram . varieties in rice fallow condition	Assessment of suitable Green gram varieties for Nagapattinam District.	5	TO1 :Farmers Practice : ADT 3 TO2: CO 8 (TNAU 2013) TO3: LGG 460 (ANGRAU, 2009)	Plant height (cm) No of pods/plant No of seeds/pod Yield (Kg/Ha)	Trial is under progress						

Contd..

Technology Assessed	Source of Technology	Production	Unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Trial is under progress					

OFT 4. Assessment of Pheromone traps for the management of coconut red palm weevil

Crop/ enterprise	Farmin g situatio n	Problem definitio n	Title of OFT	No. of trial s	Technolog y Assessed	Parameter s of assessme nt	Data on the parameter			Results of assessmen t	Feedback from the farmer	Any refineme nt needed	Justificati on for refinement
							TO1	TO 2	TO 3				
1	2	3	4	5	6	7	TO1	TO 2	TO 3	9	10	11	12
Coconut	Irrigate d	Low yield due to red palm weevil damage Crop loss 30%	Assessment of Pheromone traps for the managemen t of coconut red palm weevil	5	TO1 Farmer Practice. TO2 Pheromon e trap. (PCI, 2000) TO3 Pheromon e trap (CPCRI, 2014).	% red palm weevil incidence	14.5 0	0.9 5	0.5 9	The CPCRI pheromon e trap was performed well by recording lowest incidence of red palm weevil (0.59%) compared to check (14.50%).	The weevil incidence was low and the yield was high with less cost of management by using pheromone trap	-	-

Contd..

Technology Assessed	Source of Technology	Production	Unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
To 1. Farmer Practice	Local	9057	No. of nuts /Ha	18451	1:1.3
To 2. PCI pheromone trap @1/Ha.	TNAU, 2012	13029	No. of nuts /Ha	49253	1:1.9
To 3. CPCRI pheromone trap @1/Ha.	CPCRI 2014	13930	No. of nuts /Ha	57982	1:2.1

OFT 5: Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam District

Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam 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	Feed back from the farmer	Any refinement needed	Justification for refinement
							TO1	TO2	TO3				
1	2	3	4	5	6	7	TO1	TO2	TO3	9	10	11	12
Watermelon	Irrigated	Higher incidence of Flower dropping 18%) Unaware of Foliar application of Growth Regulators	Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam District	5	TO1: Farmers' Practice TO2: Spraying of Nitrobenzene 1125 ml/acre at 3 stages - 30, 45 & 60 DAS (OAU, 2012) TO3: Spraying of Ethrel 750ml/acre at 3 stages - 30, 45 & 60 DAS (TNAU 2013)	No. of fruits per vine (Nos.)	3.6	6.8	8.2	Spraying of Ethrel 750ml/acre has significantly improve the induction of female flowers thereby increasing the yield in coparison with the vines spraying with Nitrobenzene	Yield was higher in the ethrel sprayed plants. This technology needs to be promoted among the farmers	-	-

Contd..

Technology Assessed	Source of Technology	Production	Unit	Net Return in Rs. / unit	BC Ratio
13	14	15	16	17	18
TO1: Farmers' Practice	-	141.74	q/ha	56692	1.99
TO2: Spraying of Nitrobenzene 1125 ml/acre at 3 stages - 30, 45 & 60 DAS (OAU, 2012)	OAU, 2012	213.98	q/ha	193886	4.09
TO3: Spraying of Ethrel 750ml/acre at 3 stages - 30, 45 & 60 DAS (TNAU 2013)	TNAU, 2013	225.18	q/ha	206690	4.25

OFT 6. Assessment of Brinjal Hybrids for Nagapattinam 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
							TO1	TO2	TO3				
1	2	3	4	5	6	7	TO1	TO2	TO3	9	10	11	12
Brinjal	Irrigated	Yield reduction due to existing low yielding local varieties	Assessment of Brinjal Hybrids for Nagapattinam district	5	TO1: Farmers' Practice TO2: COBH – 2, Seed rate 200 g/ha Seed treatment - <i>Pseudomonas</i> @ 2 gm/Kg of seed + <i>Trichoderma viridi</i> - (4g/kg of seed) (TNAU, 2009) TO3: Arka Navneeth Seed rate 200 g/ha Seed treatment - <i>Pseudomonas</i> @ 2 gm/Kg of seed + <i>Trichoderma viridi</i> - (4g/kg of seed) (IIHR,2007)	Plant Height (cm)	115.2	137.2	131.6	COBH -2 hybrid performed better by producing higher yield in comparison with Arka Navneeth at Nagapattinam conditions	COBH -2 hybrid produced more yield in comparison with other hybrid and local variety	-	-
						Number of Branches/Plant (Nos)	3.6	5.0	5.0				
						Fruit weight (g)	110.0	129.2	137.6				

Contd..

Technology Assessed	Source of Technology	Production	Unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
TO1: Farmers' Practice	Local variety	165.10	q/ha	74880	1.83
TO2: COBH – 2, Seed rate 200 g/ha Seed treatment - <i>Pesudomonas</i> @ 2 gm/Kg of seed + <i>Trichoderma viridi</i> - (4g/kg of seed)	TNAU, 2009	422.16	q/ha	329120	4.54
TO3: Arka Navneeth Seed rate 200 g/ha Seed treatment - <i>Pesudomonas</i> @ 2 gm/Kg of seed + <i>Trichoderma viridi</i> - (4g/kg of seed)	IIHR, 2007	416.86	q/ha	323760	4.48

OFT 7: Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam 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	Feed back from the farmer	Any refinement needed	Justification for refinement
							TO1	TO2	TO3				
1	2	3	4	5	6	7	TO1	TO2	TO3	9	10	11	12
Fodder	Irrigated	Low milk yield and non-availability of green fodder	Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam District	5	TO1: Farmers' Practice TO2: COFS 31 multicut sorghum @ 5kg/ha TO3: SSG 59-3 (Meethi Sudan) @ 5kg/ha	Milk Yield (Litres) Economics	5 -	6.5 1.6	6.0 1.5	Both fodder variety performed well and animals eat willingly	1 to 1.5 litres of milk increasing due to green fodder to animals	-	-

Contd..

Technology Assessed	Source of Technology	Production	Unit	Net Return in Rs. / unit	BC Ratio
13	14	15	16	17	18
TO1:Farmers' Practice – without raising green fodder	-	-	-	-	-
TO2: COFS 31 multicut sorghum @ 5kg/ha	TNAU 2013	720 for 3 cuts	q/ha	16239	1.60
TO3: SSG 59-3 (Meethi Sudan) @ 5kg/ha	CCSHAU, Hisar, 1977	690 for 3 cuts	q/ha	14827	1.50

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

OFT- 1. Assessment of saline tolerant rice varieties for Nagapattinam District

1	Title of Technology Assessed	:	Assessment of saline tolerant rice varieties for Nagapattinam District
2	Problem Definition	:	Yield reduction due to saline problem and usage of saline water for irrigation
3	Details of technologies selected for assessment	:	TO1: Farmers' Practice TO 2- TRY 3 Seed @ 40 Kg/ha+ <i>Pseudomonas</i> @ 2.5 kg/ha TO3- CSR-36 Seed @ 40 kg/ha+ <i>Pseudomonas</i> @ 2.5 kg/ha TO4-Gangavathy Sona Seed @ 40 kg/ha+ <i>Pseudomonas</i> @ 2.5 kg/ha
4	Source of technology	:	TNAU 2012, CSSRI, and UAS Raichur,
5	Production system and thematic area	:	Irrigated and Varietal evaluation
6	Performance of the Technology with performance indicators	:	TO1: 41.5 q/ha TO2: 51.5 q/ha TO3: 48.0 q/ha TO4: 47.0 q/ha
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	TRY 3, CSR 36 and Gangavathi Sona varieties are performed in saline soil condition more than EC value of 2.5 and TRY 3, CSR 36 better by producing higher yield than Gangavathi Sona and CSR 36 gave good rice quality
8	Final recommendation for micro level situation	:	CSR 36 paddy variety perform better than other two varieties with fine grain quality hence this variety need to be popularized
9	Constraints identified and feedback for research	:	-
10	Process of farmers participation and their reaction	:	Good

OFT 2: Assessment of suitable BPH and BLB resistance rice varieties in Nagapattinam district

1	Title of Technology Assessed	:	Assessment of suitable BPH and BLB resistance rice varieties in Nagapattinam district
2	Problem Definition	:	Severe incidence of BPH and BLB during Samba and Thaladi season % damage- BPH: 32%, BLB: 13%
3	Details of technologies selected for assessment	:	TO 1. Farmers Practice – BTP 5204 To 2. TKM 13 (TNAU, 2014) -130 days, Moderately resistant to BPH & BLB TO 3. Sampada rice (IIRR, 2014) -135-140 days
4	Source of technology	:	TNAU 2014, IIRR 2014
5	Production system and thematic area	:	Irrigated and varietal evaluation
6	Performance of the Technology with performance indicators	:	TO 1- 31.83 Q/Ha. TO 2-50.75 Q/Ha. TO 3- 41.41 Q/Ha.
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	TKM 13 variety performed better by recording less pest and diseases incidence and more yield (50.75 q/ha) than farmer adopted variety BPT 5204 (31.83 Q/Ha.)
8	Final recommendation for micro level situation	:	TKM 13 variety performed better by producing higher yield (50.75 q/ha) with low incidence of BLB (1.55%) and BPH (0.75%) compared to BPT 5204 which recorded higher incidence of BLB (11.03%) and BPH (7.34%).
9	Constraints identified and feedback for research	:	-
10	Process of farmers participation and their reaction	:	-

OFT 3. Assessment of suitable Green gram varieties for Nagapattinam District

1.	Title of Technology Assessed	:	Assessment of suitable Green gram varieties for Nagapattinam District
2.	Problem Definition	:	Non availability of suitable green gram varieties in rice fallow condition
3.	Details of technologies selected for assessment	:	TO1: Farmer's practice
			TO2: CO 8
			TO3 :LGG 460
4.	Source of technology	:	TNAU 2013 and ANGRAU 2009
5.	Production system and thematic area	:	Irrigated and Varietal Evaluation
6.	Performance of the Technology with performance indicators	:	Trial under progress
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	
8.	Final recommendation for micro level situation	:	
9.	Constraints identified and feedback for research	:	
10.	Process of farmers participation and their reaction	:	

OFT 4. Assessment of Pheromone traps for the management of coconut red palm weevil through

1.	Title of Technology Assessed	:	Assessment of Pheromone traps for the management of coconut red palm weevil
2.	Problem Definition	:	Low yield due red palm weevil damage Crop loss : 30%
3.	Details of technologies selected for assessment	:	To 1. Farmer Practice
			To 2. PCI pheromone trap @1/Ha.
			To 3. CPCRI pheromone trap @1/Ha.
4.	Source of technology	:	TNAU 2012 and CPCRI, 2014

5.	Production system and thematic area	:	Irrigated and pheromone trap evaluation
6.	Performance of the Technology with performance indicators	:	To 1. 9057 No. of nuts/Ha. To 2. 13029 No. of nuts/Ha. To 3. 13930 No. of nuts/Ha.
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	CPCRI pheromone trap was performed well by recording lowest incidence of red palm weevil (0.59%) compared to check (14.50%).
8.	Final recommendation for micro level situation	:	CPCRI pheromone traps can be used for the management of red palm weevil in coconut
9.	Constraints identified and feedback for research	:	-
10.	Process of farmers participation and their reaction	:	Farmers participation was good and awareness created.

OFT 5: Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam District

1	Title of Technology Assessed	:	Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam District
2	Problem Definition	:	<ul style="list-style-type: none"> • Higher incidence of Flower dropping (18%) • Unaware of Foliar application of Growth Regulators
3	Details of technologies selected for assessment	:	TO1: Farmers' Practice TO2: Spraying of Nitrobenzene 1125 ml/acre at 3 stages - 30, 45 & 60 DAS TO3: Spraying of Ethrel 750ml/acre at 3 stages - 30, 45 & 60 DAS (TNAU 2013)
4	Source of technology	:	OAU, 2012 & TNAU 2013
5	Production system and thematic area	:	Assessment of foliar application of Growth Regulators
6	Performance of the Technology with performance indicators	:	TO1: 141.74 q/ha TO2: 213.98 q/ha TO3: 225.18 q/ha
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	<ul style="list-style-type: none"> • Yield was higher in the ethrel sprayed plants • This technology needs to be promoted among the farmers

8	Final recommendation for micro level situation	:	Spraying of Ethrel 750ml/acre at three stages (30, 45 & 60 Days after sowing) has significantly improve the induction of female flowers thereby increasing the yield
9	Constraints identified and feedback for research	:	-
10	Process of farmers participation and their reaction	:	-

OFT 6: Assessment of Brinjal Hybrids for Nagapattinam district

11.	Title of Technology Assessed	:	Assessment of Brinjal Hybrids for Nagapattinam district
12.	Problem Definition	:	Yield reduction due to existing low yielding local varieties
13.	Details of technologies selected for assessment	:	TO1: Farmers' Practice TO2: COBH – 2 (Seed rate 200 g/ha), Seed treatment - <i>Pesudomonas</i> @ 2 gm/Kg of seed + <i>Trichoderma viridi</i> - (4g/kg of seed) TO3: Arka Navneeth (Seed rate 200 g/ha), Seed treatment - <i>Pesudomonas</i> @ 2 gm/Kg of seed + <i>Trichoderma viridi</i> - (4g/kg of seed)
14.	Source of technology	:	TNAU, 2009 & IIHR, 2007
15.	Production system and thematic area	:	Assessment/Varietal evaluation
16.	Performance of the Technology with performance indicators	:	TO1: 165.1 q/ha TO2: 422.16 q/ha TO3: 416.86 q/ha
17.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	COBH -2 hybrid produced more yield in comparison with other hybrid and local variety
18.	Final recommendation for micro level situation	:	COBH -2 hybrid performed better by producing higher yield in comparison with Arka Navneeth at Nagapattinam conditions
19.	Constraints identified and feedback for research	:	-
20.	Process of farmers participation and their reaction	:	-

OFT 7: Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam District

1	Title of Technology Assessed	:	Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam District
2	Problem Definition	:	Low milk yield and non-availability of green fodder
3	Details of technologies selected for assessment	:	TO1: Farmers' Practice - without raising green fodder TO2: COFS 31 multicut sorghum @ 5kg/ha TO3: SSG 59-3 (Meethi Sudan) @ 5kg/ha
4	Source of technology	:	TNAU 2013 and CCShAU, Hisar, 1977
5	Production system and thematic area	:	Irrigated and Varietal evaluation
6	Performance of the Technology with performance indicators	:	TO1: - TO2: 720 q/ha for 3 cuts TO3: 690 q/ha for 3 cuts
7	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Green fodder fed milch animals gave 1.0 to 1.5 litres of milk compared to other animals The intake of both varieties by animal is good, There is no such difference between both varieties by considering feed.
8	Final recommendation for micro level situation	:	The farmers understand the importance of green fodder by getting excess milk from milch animals. Hence they plan to practice the same in future.
9	Constraints identified and feedback for research	:	-
10	Process of farmers participation and their reaction	:	-

4. D1. Results of Technologies Refined : Nil

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

PART V - FRONTLINE DEMONSTRATIONS

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

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
									Proposed	Actual	SC/ST	Others	Total	
2015-16														
1	Fodder	Irrigated	Dec-Jan	Fodder	COFS31, Hedge Lucerne, Cumbu Napier grass CO5, <i>Sesbania grandiflora</i>	-	Fodder Production	Demonstration of Multi-crop fodder production model for Nagapattinam District	0.2	0.2	3	8	11	-
2	Fiber	Irrigated	Dec-Jan	Cotton	--	RCH659		Demonstration on Eco friendly IPM modules for major sucking pest in cotton	4.0	4.0	3	7	10	-
2016-17														

1	Cereals	Irrigated	Sep-Oct 2016	Paddy	TKM 13		Seed production	Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam District	8	8	9	11	20	
2	Cereals	Irrigated	Sep-Oct 2016	Paddy	ADT 38	-	INM	Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice	8	8	6	14	10	-
3	Cereals	Irrigated	Sep-Oct 2016	Paddy	CR100 9	-	IPDM	Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy	4	4	4	6	10	-
4	Farm machinery	Irrigated	Sep-Oct 2016	Paddy	BPT 5204	-	Varietal introduction	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	4	4	4	6	10	-
5	Vegetables	Irrigated Dry	Nov-Dec 2016	Cluster bean	MDU 1		Varietal introduction and ICM	Demonstration of cluster bean variety MDU 1 in Nagapattinam District	2	2	3	7	10	-
6	Vegetables	Irrigated	June-July 2016	Brinjal	Local	-	IPM	Demonstration of IPM strategies for Brinjal borers	4	4	4	6	10	-

7	Millets	Rainfed	Sep-Oct 2016	Barn yard millet	CO (KV)2	-	Varietal introduction and ICM	Introduction of short duration, drought tolerant and high yielding variety CO (KV)2	4	4	3	7	10	-
8	Oilseeds	Rainfed	Rabi	Groundnut	VRI 8	-	Varietal introduction	Demonstration of ICM in Newly released Groundnut variety VRI 8 in Nagapattinam District	2	2	4	6	10	-
9	Vegetables	Irrigated Dry	Kharif	Bhendi	-	COBH 4	Varietal introduction and ICM	Demonstration of Bhendi Hybrid COBH-4 in Nagapattinam District	1	1	3	7	10	-
10	Forage crop	Rainfed	Kharif	Fodder cowpea	CO 9	-	Varietal introduction and ICM	Introduction of short duration, high yielding variety CO 9,	4	4	6	14	20	-
11	Fisheries		October to January	Fish	Gift Tilapia		Fisheries	Demonstration of Gift Tilapia culture in farm pond	2.5	2.5	-	5	5	
12	Animal Husbandry	-	All season	Milch animals	TANUVAS Mineral Mixture	-	Animal Health	Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cattle	20 animals	20 animals	4	6	10	-

13	Agro forestry	Irrigated	Nov-Dec 2016-17	Marigold	MDU 1	-	Varietal introduction	Demonstration of high yielding African marigold variety MDU 1 under Casuarina based Agro forestry system	4	4	2	8	10	-
----	---------------	-----------	-----------------	----------	-------	---	-----------------------	--	---	---	---	---	----	---

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

Sl. No	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Status of Soil			Previous
									N	P	K	
2015-16									L	M	H	
1	Fodder	Irrigated	Dec-Jan	Fodder	COFS31, Hedge Lucerne, Cumbu Napier grass CO5, <i>Sesbania grandiflora</i>	-	Fodder Production	Demonstration of Multi-crop fodder production model for Nagapattinam District	L	M	H	Vegetables
2	Fiber	Irrigated	Dec-Jan	Cotton	-	RCH 659	IPM	Demonstration on Eco friendly IPM modules for major sucking pest in cotton	L	M	H	Rice

2016-17												
1	Cereals	Rice fallow	Rabi	Paddy	TKM 13		Seed production	Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam District	L	M	H	Pulses
2	Cereals	Irrigated	Rabi	Paddy	ADT 38	-	INM	Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice	L	M	H	Rice
3	Cereals	Irrigated	Rabi	Paddy	CR1009	-	IPDM	Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy	L	M	H	Rice
4	Farm machinery	Irrigated	Rabi	Paddy	BPT 5204	-	Varietal introduction	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	L	M	H	Rice
5	Vegetables	Irrigated Dry	Rabi	Cluster bean	MDU 1		Varietal introduction and ICM	Demonstration of cluster bean variety MDU 1 in Nagapattinam District	L	M	H	Cluster bean
6	Vegetables	Irrigated	Kharif	Brinjal	Local	-	IPM	Demonstration of IPM strategies for Brinjal borers	L	M	H	Brinjal
7	Millet	Rainfed	Kharif/rabi	Barnyade millet (Kuthiravalli)	CO (KV)2	-	Varietal introduction and ICM	Introduction of short duration, drought tolerant and high yielding variety CO (KV)2	L	M	H	Rice
8	Oilseeds	Rainfed	Rabi	Groundnut	VRI 8	-	Varietal introduction	Demonstration of ICM in Newly released Groundnut variety VRI 8 in Nagapattinam District	L	M	H	Groundnut

9	Vegetables	Irrigated Dry	Kharif	Bhendi	-	CO BH 4	Varietal introduction and ICM	Demonstration of Bhendi Hybrid COBH-4 in Nagapattinam District	L	M	H	Bhendi
10	Forage crop	Rainfed	Kharif	Fodder cowpea	CO 9	-	Varietal introduction and ICM	Introduction of short duration, high yielding variety Fodder Cow Pea CO 9,	L	M	H	Vegetable
11	Fisheries	Farm Pond	All season	Fish	Gift tilapia		Culture introduction	Demonstration of Gift Tilapia culture in farm pond	-	-	-	-
12	Animal Husbandry	-	All season	Milch animals	TANUVAS Mineral Mixture	-	Animal health	Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cattle	-	-	-	
13	Agro Forestry	Irrigated	Kharif	Marigold	MDU1	-	Varietal introduction	Demonstration of high yielding African marigold variety MDU 1 under Casuarina based Agro forestry system	L	M	H	Casuarina

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										
	2015-16																		
Fodder	Demonstration of Multi-crop fodder production model for Nagapattinam District	COFS31, HL. CNCO 5. Sesbania grandiflora	-	Irrigated	11	0.2	8	4	6	5.2	13.0	3219	5073	1854	1.60	-	-	-	-
Cotton	Demonstration on Eco friendly IPM modules for major sucking pest in cotton	-	RC H 65 9	Irrigated	10	4	35.5	26.9	31.2	20.9	33.0	61644	151247	89603	2.2	77481	101244	23763	1.2
Paddy	Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam District	TKM 13		Irrigated	10	4	40	25	32.5	27.5	18	34962	67365	32403	1.9	34962	58350	23388	1.7

Paddy	Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice	ADT 38	-	Irrigated	20	8	52.5	50.0	51.2	44.7	12.7	38450	76875	38425	1.99	37850	67125	29275	1.77
Paddy	Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy	CR1009	-	Irrigated	10	4	61.38	51.14	56.26	34.73	38.3	43658	79198	35540	1.82	39167	48625	9458	1.24
Paddy	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	Seed drill cum fertilizer drill		Direct sown	10	4	38.9	33.9	36.4	33.5	9	28300	54212	25918	1.9	34200	50288	16088	1.4
Cluster Bean	Demonstration of Cluster bean variety MDU -1 in Nagapattinam District	MDU -1	-	Irrigated	10	2	142.5	110.8	122.1	99.26	18.7	33170	146568	113398	4.41	28910	79368	50708	2.74
Brinjal	Demonstration of IPM strategies for Brinjal borers	Local	-	Irrigated	10	4	158.75	132.15	145.4	84.26	42	120580	459340	338761	3.54	111150	269696	158546	2.19

Banyard Millets	Introduction of short duration, drought tolerant and high yielding variety CO (KV)2	CO (KV)2	-	Rainfed	10	4	17.5	8.7	13.1	-	-	11500	20115	11365	1.7	-	-	-	-
Groundnut	Demonstration of ICM in newly released Groundnut variety VRI 8	VRI 8	-	Rainfed	10	2	23	20.4	21.7	16.4	19	73945	124775	47163	1.68	72585	94300	21715	1.29
Forage crop	Introduction of short duration, high yielding variety CO 9, higher protein content (21.56%), suited for intercropping with sorghum and maize	CO 9	-	Rainfed	20	4	146.3	76.8	76.9	-	-	8550	14630	6080	1.7	-	-	-	-
Animal Husbandry	Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cattle	TANUVAS Mineral Mixture	-	-	10	20 animals	320 litre/cow/month	180 litre/cow/month	280 litre/cow/month	150 litre/cow/month	46	2800	6720	3920	2.4	2300	3600	1300	1.56

Agro Forestry	Demonstration of high yielding African marigold variety MDU 1 under Casuarina based Agro forestry system	Marigold		Irrigated	10	4	Under progress
---------------	--	----------	--	-----------	----	---	----------------

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

Demonstration of Multi-crop fodder production model for Nagapattinam District

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
No. of cutting /year	5.0	-
Green fodder biomass yield	3219	-

Demonstration on eco friendly IPM modules for major sucking pest in cotton

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
% pest reduction	74.91	15.25

Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
White ears (%)	1.1	2.4
Dead Heart (%)	3.5	5.6
Leaf folder incidence (%)	6.6	10.6

Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
No. of productive tillers/m ²	353	347

Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
% dead heart	3.63	13.29
%white ear	0.857	2.90
%leaf folder damage (veg. phase)	2.787	11.92
%leaf folder damage (flowering stage)	1.135	7.28
Blast PDI	0.73	5.12
BLB PDI	2.47	9.51
% false smut infestation	7.48	3.33

Demonstration of Cluster bean variety MDU -1 in Nagapattinam District

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
No. of branches /plant (Nos.)	9.4	6.2
No. of fruits /plant (Nos.)	149.5	111.4

Demonstration of IPM strategies for Brinjal borers

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
% stem borer incidence	0.65	9.17
% shoot damage	0.27	3.38
% fruit damage	0.32	6.00

Demonstration of Kuthiraivali CO (KV) 2 in Nagapattinam District

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Yield (Q/ha)	13.12	-
No. of ear head/Plant (No.)	26	-
Plant height (cm)	154	-

Demonstration of ICM in Newly released Groundnut variety VRI 8 in Nagapattinam District

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
No. of Plants/m ²	32	28
No. of pods /plant (Nos.)	19	16
% of pest and disease incidence	20%(Tikka leaf spot)	32

Demonstration of Fodder Cowpea CO 9 in Nagapattinam district

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Biomass Yield (Q/ha)	146.30	-
Plant height (cm)	60	-

Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cow

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
% of infertility rate reduction	40%	-

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

5.B.3. Fisheries :

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m ²)	Yield (gram)				% Increase	*Economics of demonstration Rs./unit) or (Rs./m ²)				*Economics of check Rs./unit) or (Rs./m ²)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Gift Tilapia	Demonstration of Gift Tilapia culture in farm pond	Gift Tilapia	5	2.5 ha	46 0 gm	39 0 gm	42 9 gm	332 gm	14.29 %	23660	59273	35613	2.50	24950	43380	18430	1.74

Demonstration of Gift Tilapia culture in farm pond

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Growth rate (Gram)	460 gms	390gms

5.B.4. Other enterprises

Enterprise	Name of the technology demonstrated	Variety / species	No. of Demo	Units / Area (m ²)	Income/Month (Rs)				% Increase	*Economics of demonstration (Rs./Month)				*Economics of check (Rs./month)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Hme Science	EDP on value addition in fish and prawn	-	4 vocational training (85 participants)	-	42500	37500	40000	-	-	23000	40000	17000	1.7	-	-	-	-

Group members involved : 25 women

Prepared fish and Prawn based products : Fish & prawn pickle, dry fish pickle, dry fish, fish & Prawn thokku, fish vathal, vadagam

5.B.5. Farm implements and machinery:

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Paddy	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	Seed drill cum fertilizer drill		Direct sown	10	4	38.9	33.9	36.4	33.5	9	34200	54218	20018	1.6	34200	50288	16088	1.4

Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Plant population / m ²	43	73
Productive tillers / m ²	368	297

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

Sl.No.	Activity	No. of activities organized	Number of participants	Remarks
1	Field days	4	187	-
2	Farmers Training	23	545	-
3	Media coverage	2	-	-
4	Training for extension functionaries	8	160	-
5	Others- demonstration	20	215	-

PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids :

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										
Bhendi	Demonstration of Bhendi Hybrid COBH-4 in Nagapattinam District	-	COBH-4	Irrigated	10	1	250.3	192.5	221.7	129.1		62720	265974	203254	4.24	43450	103304	59854	2.38

Demonstration of Bhendi Hybrid COBH-4 in Nagapattinam District

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
No. of fruits /plant (Nos.)	25.00	13.00

Feed back of FLDs

Sl.No	Title of FLD	Farmer feed back	Researcher feedback
1	Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam District	TKM 13 is fine grain type variety having good market value. Mostly preferred by the farmers	Low incidence of pest and disease
2	Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice	Application of Silica and potassium solubiliser was very effective which prevented 70% of in rice crop during Smba /Thaladi season. It should be available in the Agricultural Extension centre for Cuavery delta zone farmers.	Production and non availability of these bacteria was noticed, so difficult to popularize this technologies
3	Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy	Acquired awareness & knowledge about eco friendly pest and disease management in paddy	The method is very effective and reduces 15% of cost of cultivation.
4	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	Reduces cost of cultivation and saving of labour cost. Timely sowing helps to maintain population	More productive tillers Low incidence of pest and disease
5	Demonstration of Cluster bean variety MDU -1 in Nagapattinam District	By adopting this variety farmers earned 32 % more yield and increased income	This variety is performed very well under coastal areas of Nagapattinam District.
6	Demonstration of IPM strategies for	Pesticide application was reduced and	Indiscriminate application of pesticide was

	Brinjal borers	knowledge about IPM strategies was acquired by the farmers.	reduced. educed 20 % of cost for purchase of pesticides.
7	Demonstration of Kuthiraivali CO (KV) 2 in Nagapattinam District	Knew new variety which is alternate to rice earn more profit than rice	Short duration, drought tolerant and high yielding variety which is Highly suitable for value addition
8	Demonstration of ICM in Groundnut variety VRI 8 in Nagapattinam District	VRI 8 variety is affected by Tikka leaf spot. They planned to cultivate same variety this year by following ICM practices	Highly suitable for rainfed cultivation
9	Demonstration of Bhendi Hybrid COBH-4 in Nagapattinam District	By adopting this hybrid farmers earned 66 % more yield This hybrid has changed and uplifted the farmers income at very high level.	This hybrid is performed well under Nagapattinam district. Demand for seed material is more among the farmers
10	Demonstration of Fodder Cowpea CO 9 in Nagapattinam district	Higher green fodder and dry matter yield and more number of branches with broader leaves	Higher protein content (21.56%), Moderately resistant to yellow mosaic virus and resistance to major pests. Shorter in duration; suited for intercropping with sorghum and maize
11	Demonstration of Gift Tilapia culture in farm pond	getting more yield in short period	High response to fish feed. Growth development more compare with composite fish culture.
12	Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cattle	Continuous usage of TANUVAS Mineral Mixture helped animals to induce heat on time and AI was done	TANUVAS Mineral Mixture helped the animal to supplement minerals which help to induce estrous and the animal is ready for next pregnancy.
13	Demonstration of high yielding African marigold variety MDU 1 under Casuarina based Agro forestry system	Under progress	

Farmers Field School (FFS):

Mechanized Rice Cultivation (2016-17)

Mechanized rice cultivation in Tamil Nadu is becoming need of the hour due to escalating wages of farm labour and their scarcity, particularly during the peak transplanting and harvesting period. Rice cultivation needs machinery and equipment to perform several tedious operations like levelling, puddling, transplanting, harvesting and bundling of paddy straw. Use of improved rice machinery is necessary in modern rice cultivation as it results in improved efficiency of operation besides saving the labour and time. In order to advocate the use of machineries from sowing to bundling of paddy straw, FFS on '**Mechanized Rice Cultivation**' was conducted at Melapoothanur village of Thirumarugal Block with 30 farmers who were really wanted to reduce cost of cultivation with help of mechanization in rice cultivation.

Fourteen lectures were conducted during the crop period such as land leveling, bund trimming and plastering, puddling, nursery management, mechanical seeding, mat/ tray nursery preparation, transplanter, Integrated Nutrient Management, foliar spraying of nutrients, weeders, Integrated Pest and Disease Management, spraying of plant protection chemicals, combine harvester, and Straw baler were taught to them with machinery demonstrations and skill oriented classes. During the last class, the experiences and benefits of FFS were shared by the FFS farmers. Thirty farmers of Melapoothanur village participated and acquired the information of mechanized rice cultivation.

Crop	Thematic area	Technology demonstrated	Season	No. of farmers		
				Male	Female	Total
Rice	Farm Machinery	FFS on Mechanized Rice cultivation	Samba	27	3	30

Details of farming situation

Crop	Season	Farming situation	Soil type	Status of soil			Previous crop	Sowing	Harvesting
				N	P	K			
Rice	Samba	Irrigated	Sandy loam	L	M	H	Rice	Sep-Oct	Feb-Mar

Performance of FFS

Technology demonstrated	Variety	Demo yield (Q/Ha)			Check yield (Q/Ha)	% Increase
		L	H	A		
Land preparations (Laser Leveller, Tractor Drawn Leveller)	Rice TKM 13	38.4	40.2	42.0	38.3	13.0
Trimming and plastering of bunds						
Puddling (power tiller /tractor)						
Nursery management						
Mechanical seeding						
Mat / tray nursery preparation						
Types of transplanters						
Integrated Nutrient Management						
Foliar spraying of nutrients (boom sprayers)						
Types of weeders (cono weeder & power						

weeder)						
Integrated pest and disease management						
Spraying of plant protection chemicals						
Types of Combine harvesters						
Straw baler						

Impact of Mechanized Rice Cultivation Technological impact

Thirty farmers were thoroughly understood the technological know-how and field level adoption.

Technology	Awareness		Adoption	
	No.	%	No.	%
Laser Guided Leveller	30	100	20	67
Puddling (Power Tiller/Tractor)	30	100	30	100
Nursery management	30	100	30	100
Mechanical seeding /transplanting	30	100	15	50
Integrated Nutrient Management	30	100	21	70
Foliar spraying of nutrients	30	100	23	76
Cono weeder & Power weeder	30	100	23	76
Integrated pest and disease management	30	100	21	70
Spraying of plant protection chemicals	30	100	30	100
Combine harvester	30	100	30	100
Straw baler	30	100	10	33
Average	30	100	23	77

It could be observed from the table that the knowledge on mechanized rice cultivation was 100 per cent through the FFS programme and average of 77 per cent of farmers have adopted machineries in rice cultivation. Low adoption of transplanter and straw baler due to non availability of machines and small land holding of farmers.

Economic Impact

Average cost of cultivation (Rs/ha)		Average gross return (Rs/ha)		Average net return (Rs/ha)		Benefit Cost ratio	
Demo	Check	Demo	Check	Demo	Check	Demo	Check
34200	39300	60300	57450	26100	18150	1.8	1.5

Extension and training activities

S. No.	Activity	No. of activities	Remarks
1.	Farmers training	6	Farmers are quite responsive to appropriate machineries of rice cultivation due labour scarcity and high cost of labour.
2.	Demonstrations	8	
3	Publications (booklet-Farm Mechanization in Rice in Tamil)	1	

**Technical feedback on the demonstrated technologies
Farmers reaction**

- Adopting recommended spacing with mechanical transplanting reduces pests and diseases damage.
- Complete rice mechanization will reduce cost of cultivation and saving of labour cost.
- Timely completion of rice cultivating operations with machineries will reduce mental agony of farmers.
- Significant yield increase was observed in mechanized rice cultivation compared to conventional cultivation

Integrated Farming System(IFS) under Special programme :

Sl. No	Farmer Name& address	IFS Components supplied	Progress
1	Mr. S. Gnanasekaran Vandalur Parappanur road, Simpiyamahadevi (P.O) Kilvelur (TK) Nagapattinam district Mobile No: 8012963013	Vermi bag 2 nos Fish fingerlings 1000 nos	Is under Progress
2	Mr. G. Jeevanandam Nangudi Village Kilvelur (Tk) Nagapattinam district Pin – 611 104 Mobile No: 9443375262	Honey bee box 4 nos Vermi bag 2 nos	Is under Progress
3	Mr. Thilagar	Fodder seeds Co5 cutting 2000 nos Fish fingerlings 2000 nos	Is under Progress
4	Mr. Sivanantham	Vermi bag 2 nos Earth warms 3 kgs Honey bee box 2 nos	Is under Progress

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										
Integrated Crop Management	4	254	144	398	55	34	89	309	178	487
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Others- Samba paddy cultivation techniques	-	-	-	-	-	-	-	-	-	-
Horticulture	-	-	-	-	-	-	-	-	-	-
a) Vegetable Crops	-	-	-	-	-	-	-	-	-	-
Protective cultivation	2	62	4	78	12	-	12	74	4	78
Integrated Pest and Disease management	-	-	-	-	-	-	-	-	-	-
Soil Health and Fertility Management	-	-	-	-	-	-	-	-	-	-
Soil fertility management	6	169	76	245	73	25	98	242	101	343
Home Science/Women empowerment	-	-	-	-	-	-	-	-	-	-
Value addition	3	175	41	216	53	2	55	228	43	271
Plant Protection	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Production of Inputs at site	4	172	112	284	81	47	128	253	159	412
Agro-forestry	-	-	-	-	-	-	-	-	-	-
Others - Fisheries										
Rearing techniques of Gift Tilapia fish culture in Farm pond	1	34	6	50	10	-	10	44	6	50
TOTAL	19	827	378	1203	282	111	393	1109	489	1598

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										
Integrated Crop Management	6	251	41	292	42	5	47	293	46	339
Integrated farming	1	17	-	21	4	-	4	21	-	21
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
a) Vegetable Crops										
Protective cultivation	1	18	2	20	-	-	-	20	-	20
Hybrid vegetable cultivation techniques	-	-	-	-	-	-	-	-	-	-
Production of low value & high volume crop	-	-	-	-	-	-	-	-	-	-
Cultivation of fruits and vegetables	-	-	-	-	-	-	-	-	-	-
Tapioca cultivation technologies	1	36	2	38	6	-	6	42	2	44
Home Science										
Value Addition	-	-	-	-	-	-	-	-	-	-
Soil Health and Fertility Management										
Integrated nutrient management	1	9	11	20	-	6	6	9	17	26
Agricultural Engineering										
Operation and maintenance of agricultural machines	4	142	47	189	22	7	29	164	54	218
Plant Protection										
Integrated Pest Management	2	60	15	75	14	3	17	74	18	94
Integrated Disease Management	4	97	12	125	16	-	16	113	12	125
Others - Bio-Control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of Inputs at site										
Live stock production and management	-	-	-	-	-	-	-	-	-	-
Animal Nutrition Management	2	28	1	29	4	-	4	28	1	29
Forest tree cultivation	3	95	-	95	12	-	12	107	-	107
TOTAL	25	753	131	904	120	21	141	871	150	1023

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

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	Rearing of milch animals and fodder cultivation technology	2	66	2	80	12	-	12	78	2	80
Total		2	20	68	89	7	22	29	27	90	117

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

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
		-	-	-	-	-	-	-	-	-	-
Total											

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	3	-	-	-	-	-	-	96	7	183
Quality tree seedling production and Forest Nursery management	1	-	-	-	-	-	-	42	-	42
Post harvest technology, value addition and marketing	1	-	-	-	-	-	-	14	-	14
Hi tech technologies in vegetable cultivation	1	-	-	-	-	-	-	23	2	25
Nutritional importance and health aspects	1	-	-	-	-	-	-	30	30	60
Total	7							205	39	324

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
-	-	-	-	-	-	-	-	-	-	-

7. G. Sponsored training programmes conducted

Sl.No	Area of training	No. of Course	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Pulses production technology	15	1016	241	1257	175	68	243	1191	309	1500
	Total	15	1016	241	1257	175	68	243	1191	309	1500

Details of sponsoring agencies involved

- State Dept. of Agriculture
- NADP
- NGOs.

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	Rearing of milch animals and fodder cultivation technology	2	60	5	65	15	-	15	75	5	80
	Total	2	60	5	65	15	-	15	75	5	80

PART VIII – EXTENSION ACTIVITIES**Extension Programmes (including extension activities undertaken in FLD programmes)**

Sl. No	Activities	No. of Programmes	No. of participants		No. of SC/ ST		No. of Extension personnel	
			Male	Female	Male	Female	Male	Female
1	Scientific visit to farmers field	154	584	88	137	45	53	16
2	Field day	4	58	15	3	-	30	7
3	Kisan Mela	1	480	75	120	42	48	23
4	Exhibitions	8	1205	200	254	121	22	7
5	Film show/video shows	7	290	40	46	16	-	-
6	Campaign	1	616	127	142	61	48	28
7	Seminar	-	-	-	-	-	-	-
8	Zonal workshop	10	-	-	-	-	312	88
9	Farmer advisory service	223	461	158	162	121	27	6
10	Demonstrations	42	302	280	147	123	22	-
11	Exposure visits	2	45	10	15	3	35	5
12	Radio talk/broad cast	28	Mass coverage					
13	TV coverage/telecast	7	Mass coverage					
14	News paper coverage	72	Mass coverage					
15	Extension literature published	5	124 nos.					

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

9.A. Production of seeds by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Paddy	TKM 13	-	14545 kg	436350	Stock on hand
	Paddy	ADT 45	-	227 kg	5902	5
		ADT 45		1416 kg	36816	Stock on hand
	Kudiraivali	CO(KV2)	-	17.5 kg	1050	10
		CO(KV2)	-	28 kg	1680	Stock on hand
Fodder crop seeds	C:N grass	CO3	-	2900 Slips	1450	25
Others (specify)						
	Vermicompost	-	-	3925 kg	31890	190
	Earthworms	Eisenia foetida	-	1	400	1
	Banana (Plantain)	Monthan		691	1037	110
	Amaranthus			6 bundle	30	6
	Banana flower bud	Monthan		6	30	6
	Casuraina seedlings	C. equisetifolia		25072	12545	23
	Teak seedlings			1840	18200	57
	Coconut seedlings	ECT		1690	81321	232
	Protray			31	775	6
	Alternanthera			4 bundle	20	3
	Pasalaikeerai			2 bundle	10	1
	Radiah			250 gm	10	1
	Agathi			3 bundle	20	3
	Green gram (Gr)			11 kg	440	10
	Azolla			35.5 kg	275	16
	Paddy straw			850	1700	4
	Paddy Grain	ADT 46		3280	49856	DPC
	Paddy Grain	CR 1009		3800	55480	DPC
	Paddy	CR 1009 sub-1		1575	37800	31
	Pseudomonas	P.f-1		464	46400	220
	Tender coconut	Dwarf-COD		79	1185	44
	Fish	Pangasius		4.5	450	4
	Gunny bags			44	2200	10
	Coconut tonic			505 pkt	7575	129
	Vegetable seed pocket			77	3850	73
	Cocopeat			1362	8172	83

	Paddy seed	ADT 46		1385 kg	36010	3
	Seminar hall rent			5½ days	8250	
	Maize cob			154	462	80
	CO3 fodder bundle			21	210	18
	Mango Jam			11.45 kg	2556	35
	Mango squash			54.35 lt	8161	72
	Tomato thokku			4.2 kg	1246	11
	Thulasi			3 bundle	15	2
	Mango			1 kg	10	1
	Paddy	TKM 13		420 kg	9630	27
	Tomato seedlings			2 tray	200	1
	Fish pickle			1.95 kg	1170	8
	Prawn pickle			1 kg	600	4
	Bhendi			25.330 kg	2112	166
	Cluster bean			105 kg	1233	113
	Paddy	ADT 45		180 kg	4680	5
	Amla squash			22.96 lt	6343	284
	Amla candy			200 gm	120	1
	Sitharathai			3 bundle	30	1
	Malai vembu			1	10	1
	Thavasikeerai			2	10	1
	Veenghai			15	150	2
	Kuthiraivali seed			17.5 kg	1050	10
	Mango thokku			800 gm	184	7

9.B.Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Seedlings	Coconut seedlings	ECT	-	1690	81321	232
Fodder crop saplings	C:N grass	CO3	-	2900 slips	1450	25
Tree Seedlings	Casuraina seedlings	<i>C.equisetifolia</i>	-	25072	12545	23
	Teak seedlings		-	1840	18200	57
	Venghai		-	15	150	2
Others(specify)	Vermicompost		-	3925 kg	31890	190
	Earth worms	<i>E.foetida</i>	-	1 kg	400	1
Total				5787.5	145956	530

9.C.Production of Bio-Products

Bio Products	Name of the bio-product	Quantity (Kg)	Value (Rs.)	Number of farmers to whom provided
Bio-fungicide	<i>Pseudomonas</i> (Talc)	464 kg	46400	220
Bio Agents	Cocopeat	1362 kg	8172	83
Others (specify)	Azolla	35.5	275	16
	Vermicompost	3925 kg	31890	190
	Earth worms (E. foetida)	1 kg	400	1
Total		35443	87137	510

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

Name	:	Uzhavan
Date of start	:	Oct – Dec 2007
Periodicity	:	Quarterly
No. of copies distributed every quarter	:	100

(B) Literature developed/published

Item	Title	Author name	Numbers	Additional information
Abstracts	Assessment of performance of Ecological Engineering IPM (EEIPM) modules in paddy.	Alagar, M, M. Tamil Selvan, R. Ravi and A. Anuratha. 2017.	-	2 nd KVK symposium held at Tamil Nadu Agricultural University, Coimbatore on 7 th and 8 th March 2017.
	Suitable wet land integrated farming system for Nagapattinam district.	Ravi, R., A. Anuratha, M. Alagar and P. Kamaraj. 2017	-	2 nd KVK symposium held at Tamil Nadu Agricultural University, Coimbatore on 7 th and 8 th March 2017.
	Effect of machine transplanting in rice in Nagattinam district of Tamil Naud.	Kamaraj, M. Alagar and A.Anuratha. 2017.		2 nd KVK symposium held at Tamil Nadu Agricultural University,

				Coimbatore on 7 th and 8 th March 2017.
	TANUVAS GRAND Supplement to increase milk yield of milch animals in Nagappatinam district.	Thilagam, J., J. Selvi, R. Ravi and A. Anuratha,		2 nd KVK Symposium held at TNAU, Coimbatore on 7 th & 8 th March, 2017.
	Effect of micronutrient mixture for increasing the yield and productivity in brinjal,	Tamil Selvan, M., R. Ravi and A. Anuratha		2 nd KVK Symposium held at TNAU, Coimbatore on 7 th & 8 th March, 2017.
Books	Agricultural technologies for Rabi season crops(Tamil)	Anuratha, A., R. Ravi., J. Thilagam., J. Selvi., M. Alagar., M. Tamilselvan., P. Kamaraj., V. Gnanabharathi and R. Vedharathinam 2016.	100	Released at KVK, Sikkal, Nagapattinam, 2016
	Farm Mechanization in rice cultivation	Kamaraj.P, M.Alagar , A.Anuratha, and R.Vedharethinam	50	Distributed to the farmers of FFS
Booklet	Preservation technology and value addition in tomato (Tamil).	Selvi, J., A. Anuratha., J. Thilagam, R. Ravi., M. Tamilselvan and M. Alagar. 2016.	50	KVK, Sikkal, Nagapattinam.
	Farm Machineries for Direct sown rice cultivation	Kamaraj.P, M.Tamil Selvan, M.Alagar, R.Ravi, J.Thilagam, J.Selvi and A.Anuratha -2016	50	Released by Director of Extension Education, TNAU, Coimbatore during Scientific Advisory Committee Meeting 2016 on 23.09.2016 at Krishi Vigyan Kendra, Sikkal
	Value addition of Fish and Prawn and marketing strategies (Tamil)	Selvi, J., J. Thilagam and A. Anuratha. 2016.	50	Distribution to the trainees at KVK, Sikkal, Nagapattinam

	Integrated Crop management Technologies in Rice (Tamil)	Alagar, M., P. Kamaraj and A. Anuratha. 2016. KVK, Sikkal, Nagapattinam.	50	-
	Value addition in fish and prawn (in tamil). KVK, Sikkal	Selvi, J., A. Anuratha, J. Thilagam and R. Ravi. 2017.	50	Distribution to the trainees at KVK, Sikkal, Nagapattinam
	Fodder Cultivation Technology	Dr. J. Thilagam, Th. R. Vedharethinam, Dr. J. Selvi, Dr. A. Anuratha and Dr. R. Ravi. 2017.	50	Distributed to the farmers training on 24.03.2017
	Value addition in amla	Dr. J. Selvi, Dr. A. Anuratha, Dr. J. Thilagam, Dr. R. Ravi, Dr. M. Tamilselvan, Dr. P.Kamaraj and Dr. M. Alagar. 2017.	50	Distributed to the farmers training on 22.03.2017
Folder/ Pamphlets	Eco friendly management of pest and disease in Rice -Tamil	Alagar M, M.Tamil Selvan, J.Thilagam, P.Kamaraj, R.Ravi J.Selvi and A.Anuratha (2016).	100	--
Leaflets				
1	IPM for Brinjal	Alagar M, M.Tamil Selvan, J.Thilagam, P.Kamaraj, R.Ravi J.Selvi and A.Anuratha-2016	100	-
2	Integrated BPH management in Samba Thaladi Rice	Alagar M, A.Anuratha, M.Tamil Selvan, P.Kamaraj J.Thilagam R.Ravi and J.Selvi-2016	100	-
3	ICM technologies for Samba /Thaladi rice	Alagar M, A.Anuratha, M.Tamil Selvan, P.Kamaraj, J.Thilagam R.Ravi and J.Selvi-2016.	100	-
4	Rice IPM technologies	Alagar M, A.Anuratha, M.Tamil Selvan, P.Kamaraj, J.Thilagam, R.Ravi, and J.Selvi (2016).	100	-

Popular article				
	Title	Author name	Number	Remarks
1	IPDM . Malar- 15, Kani – 06 , P. No70-75.	Alagar M, M.Tamil Selvan, P.Kamaraj, J.Thilagam, R.Ravi, and J.Selvi and A.Anuratha. (2016)	-	Malarum Velanmai, May 2016
2	A Potential Minor Fruit Crop for Drylands. June 2016	Tamil selvan, M., M. Alagar, A. Anuratha, R. Ravi, J. Thilagam and J. Selvi. Jamun –	-	Tamil Nadu journal of Co-operation, Vol. 16, issue: 3, pp: 41-50 (English)
	Varanda paguthigalukku ettra mooligaip payir kanvalik kilangu.	Tamilselvan, M., M. Alagar, A. Anuratha, R. Ravi, J. Thilagam and J. Selvi.	-	Tamil Nadu journal of Co-operation , Vol. 88, issue: 10,pp: 60-64.
3	Preservation of sugarcane Juice and its use	Selvi, J., A. Anuratha, R.Ravi, J.Thilagam and M. Alagar.	-	Malarum Velanmai, Vol. 15 (06). pp: 42-44. June 2016
4	IPDM in Pulses	Alagar, M., M. Tamilselvan, P.Kamaraj, J. Thilagam, R. Ravi, J.Selvi and A. Anuratha.	-	Vol. 15(06). pp: 70-75.
5	Repairs and Maintenance of Power sprayer	Kamaraj. P and A.Anuratha. 2016.	-	Velan Malar- 15, Kani – 07, P. No.56-59.
6	Methods to be followed at the time of spraying of plant protection chemicals	Kamaraj. P and A.Anuratha		2016Malar- 15, Kani – 07, P. No.60-62.
7	Health benefits of Ragi- June 2016	Selvi, J., A. Anuratha, R. Ravi, J. Thilagam, M. Tamil selvan and M. Alagar.		Patchai Boomi, Vol. 06 (02). pp: 33-34.
8	Medicinal Coleus cultivation technologies.	Tamil selvan, M., P. Kamaraj, M. Alagar, J. Selvi and A. Anuratha.		Patchai Boomi, , Vol. 06 (02) pp: 35-37.
9	Importance of Moringa and value addition technologies - July 2016	Selvi, J., A. Anuratha, J. Thilagam, R. Ravi, M. Alagar and M. Tamil selvan.		Malarum Velanmai, Vol. 15 (08). pp: 68-70.
10	Malai Vembu cultivation- Boon to farmers	Ravi, R., A. Anuratha, M. Alagar, J. Selvi, J. Thilagam and M. Tamilselvan.		Malarum Velanmai, Vol. 15 (08). pp: 54-57.

11	Forest-Wonder of Nature- July 2016	Ravi, R., A. Anuratha, J. Selvi, J. Thilagam and M. Alagar.		Patchai Boomi, Vol. 06 (03). pp: 27-29.
12	Noni crop cultivation- July 2016	Tamil selvan, M., M. Alagar, A. Anuratha and J. Selvi. Vol. 88, issue:11 pp: 56-59.		Tamil Nadu journal of Co- operation (Tamil)
13	Export potential for Senna cultivation - July 2016	Tamil selvan, M., M. Alagar, A. Anuratha, R. Ravi, J. Thilagam and J. Selvi.		Tamil Nadu journal of Co- operation (Tamil), Vol. 89, issue: 4, pp: 48-51.
14	Maintenance of Power sprayer- August 2016	Kamaraj. P and A.Anuratha.		Patchai Boomi, 2016. Vol. 6, issue: 4, pp: 37- 39.
15	Methods to be followed at the time of spraying of plant protection chemicals- Sep 2016	Kamaraj. P and A.Anuratha 2016.		Patchai Boomi, Vol. 6, issue: 5, pp: 30-32.
16	A success farmer in Birinjal cultivation - September 2016	Tamil selvan, M., J. Thilagam and J. Selvi.		Uzhavarin Valarum Velanmai, kyh;- 8/ ,jH; -3. gf;fk :- 26-28.
17	Nutritional and health benefits of Brown Rice – A review. ,	Selvi. J, J. Thilagam, A. Anuratha and R. Ravi.		Beverage and Food world, Vol. 43-No.9, Page 35-36.
18	Medicinal use of Fenu greek	Selvi. J., J. Thilagam, and R. Ravi.		Uzhavarin Valarum Velanmai
19	Benefits of manaththakali keerai -November 2016	Selvi J., A. Anuratha, J. Thilagam, R. Ravi, M. Tamil selvan and M. Alagar.		Pachai Boomi. Vol.6, Issue.7.
20	A success farmer in Black gram (VBN 6) cultivation- December 2016	Ravi, R., A. Anuratha and J. Thilagam.		Uzhavarin Valarum Velanmai- Page 46-47.
21	February 2017	Dr.R.Ravi, Dr.J.Selvi and Dr.M.Tamil Selvan, Nagapattinam Mavattathirketra Marappayir Saagupadi – Oru kannottam.	-	<i>Uzhavarin Valarum velanmai,</i>

10.B. Details of Electronic Media Produced :Nil

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

1. Success Story of Seed Production of rice variety TKM 13

Back Ground:

Newly released rice variety TKM 13 (TNAU, 2014) was demonstrated in 20 progressive farmers' field for seed production during Rabi season in all parts of Nagapattinam District.

During the demonstration programme, it was found that TKM 13 produces an average seed yield of 4000 Kg/ha with the 385 productive tillers/m². It was also observed that TKM 13 had the character of moderately resistant to leaf folder, stem borer, green leaf hopper, blast, rice tungro disease, brown spot, sheath rot and resistance to disease and lodging. Moreover this variety has high milling yield and head rice yield which is also suitable for cooking meals, idly and dosa. It has high linear elongation ratio with superior cooking and organoleptic (bio chemical property responsible for very good taste of cooked rice) characters.

TKM 13 rice variety is a good alternate to BPT 5204 with superior characters like early vigor, sprout and grow fast in field condition. It is highly responsive to fertilizers and manures application enhancing plant potential to give more yield. It can be cultivated successfully in delta and other irrigated lands. It does not lodge during heavy rain because of strong tiller base. It has the duration of 128 to 132 days.

Among the ten demonstrations, Mr.G.Jeevanantham S/o Th.Ganapathi has done best seed cultivation practices in the rice variety TKM - 13. He is 53 years old progressive farmer and his qualification is HSC.

Intervention Process:

KVK, Sikkal approached Mr.G.Jeevanantham for demonstrating seed production in TKM 13. He got technologies related seed production Rice TKM 13 which will be replicated in his farmers .

Intervention Technology:

He adopted the following recent technologies in cultivation of rice variety TKM 13:

- Seed treatment with *Pseudomonas* (10 g/kg of seed) and *Trichoderma viride* (4 g/kg),
- Seed treatment with *Azospirillum* @ 600g/Kg of seed
- Transplanting of 25days old seedlings
- Drenching the seedlings with *Pseudomonas fluorescens* @ 10 g per litre of water

- Application of *Pseudomonas fluorescens* @ 1 Kg/acre,
- Application of balanced fertilizer application in basal and top dressing.
- Application of Gypsum @ 500 kg at the time of last ploughing.
- Application of Zinc Sulphate @ 0.5% +0.2% urea at 15 days interval.
- Keeping of light traps (12 Nos./ha) and Yellow sticky traps (12 Nos./ha) to control insects in his field which are of eco-friendly in nature.
- Neem Seed Kernel Extract (NSKE) @ 0.5% or Imidacloprid @ 0.5ml/litre of water based on the need to control sucking pests.

Impact on Horizontal spread:

Since, he is a progressive farmer in Kilvelur block of Nagapattinam district; Nagapattinam farmers can make a visit to his farm by the adoption of latest technologies for rice cultivation and seed production of TKM 13. So far, nearly 50 farmers from nearby areas visited his field and gained knowledge from him.

Impact on Economic Gains:

He earned Rs.80000/- as a gross return from one hectare of land by cultivating seed production of TKM 13 in 128 days by investing Rs.37000/- during the year 2016.

Sl.No.	Particulars	BPT 5204	TKM 13
1.	Yield (kg/ha)	3350	4000
2.	Cost of cultivation (Rs./ha)	37000	37000
3.	% of Dead Hearts (SP I)	5.6	4.6
4.	% of White Ears (SP II)	2.4	1.1
5.	% of Leaf Damage (SP III)	10.6	7.7
6.	Gross income (Rs./ha)	67000	80000
8.	BC Ratio	1.8	2.2

Impact on Employment Generation:

He provided regular employment for 2 persons. He also generated employment opportunity for minimum 10 persons during season at least for 30 days.

2. Earned high income by adopting Eco-friendly pests and disease management in Paddy

Background

A farmer Mr. Elamaran (Age 45) from Kokkur village of Kuttalam block, Nagapattinam district, earned higher income by adopting eco friendly pests and disease management in paddy.

Intervention Process

He approached KVK, Sikkal for getting guidance about the eco friendly pests and disease management in paddy cultivation.

Intervention Technology

For any cultivation soil fertility is base. Even though inorganic pesticides will control the pests initially, later the pest create resistance to pesticides Hence spraying of pesticides apart from destroying the beneficial microorganisms in the soil and reduce the soil fertility.

Generally most of the disease spread through seeds, so seed treatment is must, its like a vaccination for childrens. He did seed treatment with *Pseudomonas flourecens* @10 gram for one kg of seeds, 200 gram of azospyrillum, 200 grams of phospho bacteria, which was soaked with sufficient quantity of water for overnight before sowing the seeds.

To encourage the natural enemies in the field he grown black gram, sunflower, marigold, gingelly on the bunds of the main field. This bund crops attracted more natural enemies in the field. In water management he followed alternate wetting and drying strategies. During planting he transplanted the seedling in East West direction, it enabled the sunlight directly passed up to the base of the seedlings, and this was reduced brown planthopper incidence and other diseases. For every 8 feet, he left one feet rogue spacing.

For the management of rice stem borer he used *Trichogramma japonicum* egg parasitoid @ 2cc for one acre at 30 and 37 days after transplanting. For the management of leaf folder he used *Trichogramma chilonis* egg parasitoid @ 2cc at 37, 44 and 51th day after transplanting. The management of early instar larvae he used Neem Seed Kernel Extract (10 kg in 200 liters of water) or Neem Oil (6 liters in 200 liters of water). The neem product will arrest the egg laying of moths.

For the management of brown planthopper, white backed planthoppers, green leaf hoppers and other sucking pest he applied *Lecanicillium lecanii* @2 kg + 20kg of well decomposed FYM per acre. For the management of stem borer larvae, leaf folder larvae and army worm he applied *Beuveria bassiana* @ 2 kg + 20kg of well decomposed FYM per acre. This fungus cause disease on the insect pests and kill it. For the prevention of rice false smut disease infestation, he sprayed *P. fluorescence* @1kg in 200 liters of water at the time of panicle initiation.

For monitoring the brood emergence of rice stem borer he used pheromone traps @ 5 for one acre. Based on the number of stem borer moths trapped in the trap he planned the management practices. This not only used for monitoring the stem borer incidence earlier, but also it useful for mass trapping the stem borer moth and to take the early plant protection measures. He installed one light trap for one acre of paddy field.

He used bird perches @ 20 to 25 for one acre. During day time the predatory birds will catch and eat insects and during night time owl will sit on the bird perches and it will catch and eat rats. Ten days before harvesting the crop, there was heavy rain, but the crop was not lodged because of organic method of cultivation.

Impact Horizontal Spread

Those farmers interested in eco friendly pest management in paddy can approach him. About 55 farmers from nearby village visited his field.

Impact Economic Gains

By following this eco friendly pest and disease management practices he got 1750 kg of yield for one acre. The cost of cultivation was Rs.18,300/- for one acre. He had converted the paddy in to rice, got 1082 kg of rice, he sold one kg of rice for Rs.45/-. So, he got net profit of Rs, 30,390/-.

Impact on Employment Generation

He generated regular employment for 2 persons.

3. VBN 6 Black Gram makes a farmer to uplift the farm income 2016-17

Background

Mr.G.Jeevanantam S/O. Ganapathy, was successfully cultivating Black gram VBN 6 in Chithirai and Adi pattam respectively. In his field, Cluster Front line demonstration was conducted on Rabi pulses using Black Gram VBN 6 variety during 2015-16 and training on Integrated Crop Management technologies for pulses crop was conducted.

Intervention process

He approached KVK, Sikkal for getting guidance for the intensive cultivation of all crop especially like rice, pulses and vegetable. Moreover, he got some useful information related to cultivation of irrigated pulses. He was actively involved in taking up this cluster FLD demonstration on Rabi pulses.

Intervention Technology

He gathered knowledge on seed treatment with bio fertilizers, Nutrient management and application of TNAU Pulse Wonder during peak flowering stage through the trainings.

The following technologies were adopted in the black gram cultivation.

- Seed treatment with Imidacloprid 5ml/kg of seed.
- Seed treatment with *Rizhobium* 250 gm and *Trichoderma viredi* 4 gm/kg of seeds.
- Basal application of fertilizers Urea 15 kg, DAP 25 kg and MOP 15 kg/acre before sowing.
- Foliar spraying of TNAU pulse wonder @5 kg/ha.
- Installation of pheromone traps @ 12 nos/ha.

Economic gains:

Sl.No.	Particulars	ADT 3	VBN 6
1	No. of Pod/plant	36	65
2	Yield (q/ha)	7.0	20.0
3	Gross Return (Rs./ha)	70,000	2,00,000
4	Net Return (Rs./ha)	50,000	1,37,500

Impact on Horizontal spread:

Through the sale VBN 6 as seeds more than 100 farmers were benefitted and provided seed to Department of Agriculture for double the income. Exposure visit was arranged among the farmers to visit his field to popularizing this success for large scale adoption.

Impact on Employment Generation

He generated regular employment for 10 persons.

PROGRESSIVE FARMER IN BHENDI CULTIVATION

1. Background

Mr.M.Veerappan S/o Th.Muthukannu is a 50 years old farmer residing at Vairavankadu village, Thirupoondi East, Keelaiyur block of Nagapattinam district. His qualification is SSLC. He is involved in the farming activity for the past 25 years. Earlier, his father adopted the traditional method of cultivating vegetables. He marketed the produce in the local market and earned a handsome profit to run the family without any savings. He owned around 2.0 acres of land for the cultivation.

Mr. Veerappan is involved in the farming activity independently for the last 10 years. He wants to uplift the farming activities in his own land of 2.0 acres. He discussed with the scientists from KVK, Sikkal regarding the new technologies for cultivating vegetables and other crops regularly. Based on the technologies and ideas received from KVK, Sikkal he started to cultivating the vegetables like bhendi, brinjal, chillies, tomato, cluster beans, snake gourd, bitter gourd etc., and other crops like Ground nut and pulses.

2. Intervention Process

He approached KVK, Sikkal for getting guidance for the intensive cultivation of vegetables like bhendi, brinjal, chillies, cluster beans and others. Moreover, he attended the training related to modern techniques for cultivating the vegetables like Pro-tray nursery, irrigation through Rain-gun, Sprinkler and Drip irrigation Systems and maintenance of farm machineries. He is involved in the demonstration of newly released Bhendi hybrid CO BH-4 in the field.

3. Intervention Technology

He started to cultivate the vegetables with new technologies since 2010 with the technology received from the KVK, Sikkal.

He adopted the following recent technologies in the Bhendi cultivation:

- Use of high yielding varieties/hybrids,
- Seed treatment with *Trichoderma viride* (4 g/kg) and *Pseudomonas* (10 g/kg of seed)
- Foliar spray of *Pseudomonas fluorescens* @ 2 ml/litre of water
- Use of 2 kg each of Azospirillum and Phosphobacteria by mixing in the FYM in the main field before sowing/planting.
- Spraying of IIHR vegetable special @ 0.5% (7.5kg/ha – three times spary at 20 days interval – starting at flowering stage)
- Application of Neem Seed Kernel Extract (NSKE) @ 0.5% or Imidacloprid @ 0.5ml/litre of water based on the need to control sucking pests
- Keeping of pheromone traps (12 Nos./ha) and Yellow sticky traps (12 Nos./ha) to control the insects in his field which are eco-friendly in nature.

4. Impact on Horizontal spread

Since, he is a progressive farmer in keelaiyur block of Nagapattinam district; Nagapattinam farmers can make a visit to his farm by the adoption of latest technologies for cultivating the vegetables. So far, nearly 25 farmers from nearby areas visited his field and gained knowledge from him.

5. Impact on Economic Gains

He earned Rs.87,500/- as a net return from one hectare of land by cultivating Bhendi COBH4 in 4 months period by investing Rs.43,700/- during the year 2016. By cultivating the

newly released bhendi hybrid COBH-4, he earned 66 % more yield than local variety. This hybrid has changed and uplifted his income at very high level by starting a one small Flour mill at his village.

Sl. No.	Particulars	Local Variety	Bhendi hybrid CO BH-4
1.	Yield (q/ha)	132.80	244.25
2.	Cost of cultivation (Rs./ha)	37200	43700
3.	Number of fruits /plant	17	32
4.	Gross Return (Rs./ha)	74200	131200
5.	Net Return (Rs./ha)	37000	87500
6.	BC Ratio	1.99	3.00

Additionally, he purchased around 1.0 acre of agricultural land in the recent years by getting the income only from vegetable cultivation. At present, he is established rain-gun unit, drip irrigation unit, Motor with pump set and other spraying accessories which are very much essential for the intensive cultivation of vegetables.

6. Impact on Employment Generation

He generated regular employment for 2 persons. He also generated employment for minimum 6 persons during season at least for 30 days.

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

- Technologies transferred through KMAS.
- Whatsapp group formed for Nagapattinam farmers and technologies transferred effectively through this media.
- Special programme organized for creating awareness and knowledge on recent technologies.
- Technologies transferred in farmers grievances meeting which will be attended by progressive farmers

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

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

- Participatory Rural Appraisal
- Feed back analysis
- Group discussion
- Farmers meeting
- Survey and interview

10.G. Field activities

- No. of survey/PRA conducted : 3

10.H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Completed

Year of establishment : 2011

List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1.	Digital Visible Spectrophotometer	1	39,104
2.	Digital pH meter "Elico" Make	1	5,970
3.	All Glass Single Distillation unit	1	36,400
4.	Khan Shaker "Labline"	1	20,800
5.	Hot air oven	1	17,680
6.	Hot plate	1	7,956
7.	Willey mill	1	32,760
8.	Water Bath	1	7,249
9.	UP based Flame Photometer "Elico" Make	1	45,240
10.	Digital conductivity meter "Elico" Make	1	11,326
11.	Electronic Top loading balance "Cyberlab"	1	6,760
12.	Electronic Top loading balance "Shimadzu"	1	20,592
13.	Water and Soil analysis kit	1	19,750
14.	Digestion system (Kelplus)	1	1,12,216
15.	Distillation system (Kelplus)	1	1,82,936
16.	Instrument table	5	78,000
17.	Rack,Almirah, Angle Iron rack	-	70,000
18.	Soil and Plant storage cabin	-	1,00,000
19.	Wash basin, sink and exhauster fan		70,000
20.	Servo relay stabilizer – 2 Kva	1	7,500
21.	Micropipette	2	3,600
22.	Buchner funnel with flask	1	2,000
23.	Titration unit	2	10,000
24.	Vacuum pump	1	5,000
25.	HCL Computer with printer	1	37,600
26.	Mini soil Testing Kit	1	75,000
Total			10,25,439

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	965	647	246	37400.00
Water Samples	383	360	251	6710.00
Total	1348	1007	497	44110.00

Details of samples analyzed during the 2016-17 :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	244	181	53	19750.00
Water Samples	84	79	79	3720.00
Total	328	260	132	23470.00

10.I. Technology Week celebration during 2016-17 : Yes

Celebration of Jai Kisan Jai Vigyan Week:

Name of the KVK	Name of the Dignitaries / People's Representatives participated	Days of conducting the Function	Whether Technology Week was also conducted Yes/No	Number of participants from farming community	Number of other officials from Public and Private Sectors participated	Number of programmes organized for schools and colleges students including those which are teaching agriculture	Number of school /college students participated	Major events organized
ICAR-KVK, Nagapattinam,	Dr. Megala, Principal, ADM College for Women, Nagapattinam and Dr. Malathy, Head of Department, Department of Chemistry, ADM College for Women, Nagapattinam	23.12.2016	Yes	--	4	3	78	Essay writing, Elocution and Quiz competition at ADM college for women, Nagapattinam.
	Mr. T. Ganesh, District Development Manager, NABARD, Nagapattinam	26.12.2016	Yes	82	3	2	--	On campus training "Preservation Technology, Value Addition and Marketing of Vegetables and Fruits" and exhibited value added products from rice, pulses, vegetables and fruits at KVK, Sikkal.
	Mr. V.Radhakrishnan,	27.12.2016	Yes	53	5	2	--	Off campus training on "Integrated

	M.L.A, Mayiladuthu rai. Mr.S.Subbai yan. Assistant Director of Agriculture, Mayiladuthu rai block.							Pest and Disease Managemen t in Rabi rice and diagnostic field visit at Thiruvap uthur, Mayiladuth urai block.
	--	29.12.2 016	Yes	31	4	2	--	Off campus training cum demonstrati on on Coconut tree climber and Farm machineries for Ground nut cultivation at Pushbavan am Village, Vedharanya m Block.

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

Mass Spraying of PPFM spray for drought management of Samba/Thaladi paddy

Demonstration cum training was conducted at Nangudi Village Kilvelur block. In this programme, awareness about importance of PPFM spray, dosage and method of application were given to the farmers of Kilvelur block and mass spraying of PPFM was carried out in 25 acres of rice crop on 19.12.2016,

Besides demonstration, mass spraying on PPFM was conducted at kongarayanallur village, Thirumarugal block on 27.12.2016 with Department of Agriculture. Subsequently the mass spray of PPFM was conducted based on the farmers need. 1000 litres of PPFM was used for drought mitigation for rice crop and 5000 acres was covered during 2016-17

11.. A.Introduction of alternate crops/varieties - Nil

B. Major area coverage under alternate crops/varieties- Nil

C. Farmers-scientists interaction on livestock management: 2 Nos.

D. Animal health camps organized : Nil

E. Seed distribution in drought hit states: Nil**F. Large scale adoption of resource conservation technologies: Nil****G. Awareness campaign :****Awareness Programme on Pradhan Mantri Fasal Beema Yojana**

Date	Name(s) of VIP and Chief Guest with designation	No. of farmers	Name (s) of Bank. Officials	Name(s) of Govt. Officials	Remarks
20.08.2016	<ol style="list-style-type: none"> 1. Thiru. O. S. Maniyan , Hon'ble Minister for Handloom and Textile from State Government 2. Th.M.Tamimun Ansari, MLA, Nagapattinam 3. Th.S.Pounraj, MLA, Poombuhaar 4. Th.P.V.Bharathi, MLA, Sirkazhi 5. Th.V.Radhakrishnan, MLA, Mayiladuthurai 6. Th.A.K.Chandrasekaran, Chairman, District Panchayat 7. Tmt. Mageswari Varaprasaad, Counsilar, District Panchayat, Nagapattinam 8. Tmt.C.Manjula, Chairman, Nagai Municipality 9. Th.G.Thiruvalarche Ivan, Vice Chairman, Nagai Union 10. Th.K.Gunasekaran, Chairman, Coerative Milk Supplier society, Nagapattinam 	717	<ol style="list-style-type: none"> 1. Th. G.Rajendra Prasad, Regional Joined Registrar, Cooperative 2. Th.V.G.Sankaran, Manager, Lead Bank, Nagapattinam District 3. Th.D.Ganesh, Distirct Development Officer, NABARD, Nagapattinam 	<ol style="list-style-type: none"> 1. Th.S.Palanisami, District Collector, Nagapattinam 2. Dr.V.Ravi, Director, TRRI, Aduthurai 3. Dr.M.Nagoor Meeraan, DE E, TNFU, Nagapattinam 4. Th.J.Sekar, JDA, Nagapattinam 5. Th.A.Arputham DDH, Nagapattinam 6. Regional Joined Director, Animal Husbandary, Nagapattinam 7. Ranger, Dept of Forestry, Nagapattinam 8. EE (AE), AED, Nagapattinam 9. AE, Dept of Fishery, Nagapattinam 	<ol style="list-style-type: none"> 1.Tmt.J.Jeyanthi, Assistant General Manager, The New India Assurance Company Limited, Chennai. 2.The District Manager and 8 officials, New India Assurance Company Limited, Nagapattinam <p><u>NGOs & Others</u> CIKS, CCD, Sweet, Reliance Foundation, MSSRF, Jain irrigation, Barrex, Mahendra Tractors, Oorvaraa transplante rs were participated in the exhibition.</p>

PART XI. IMPACT

11.A. Impact of KVK activities : Nil

11.B. Cases of large scale adoption : Nil

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

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
State dept. of Agriculture	<ul style="list-style-type: none"> • Jointly organized training, extension programmes • Giving technical support and infrastructural support during monthly zonal workshop. • Jointly organized field diagnostic survey for pest and disease management • PMFBy programme • Flood / Drought assessment • Yield performance assessment • Organizing drought mitigation programme
Dept. of Horticulture	<ul style="list-style-type: none"> • Jointly organized training programmes • Offering need based technical guidance to the extension functionaries. • Field diagnostic visit • Flood / Drought assessment • Yield performance assessment • Third party Inspection on Drip irrigation unit at farmers field
NABARD	Organizing Farm Science Club and exposure visits.
Local NGOs like MSSRF, SWEET, NAMCO, WORLD VISION, DHANYA, CCD, CARE and CIKS	Organizing on/off campus training Programmes and exposure visits, offering need based technical guidance
ZPD, CRIDA, TANUVAS, IICPT, DEE, SCMS, CPPS, CPBG, TRRI-Aduthurai, SWMRI-Thanjavur, KVK-Thiruvarur, KVK-Trichy, KVK-Karaikal	Technical consultancy and exchange of SMS during training programmes.
1.AIR (Karaikal, Trichy,), 2.Kamban TV under CSR(Reliance Foundation)	<ul style="list-style-type: none"> • Offering radio programmes on latest crop production technologies and periodical announcements of technologies on critical crop stage. • Offering Live TV programme on latest crop production technologies
District Collectorate.	Farmers grievance day meeting, Organizing need based training programme and promoting agricultural entrepreneurship, PMFBy programmes.

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

Name of the Project	Sponsor	No. of Training conducted	No. of Participants	Amount Sanctioned (Rs)
NADP-Training on Enhancing pulse production in the Delta and Non Delta area	NADP	15	1500	3,75,000

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district- Yes

Role of KVK in preparation of SREP of the district:

District contingent plan has been prepared for Paddy Kharif and Rabi season for the Nagapattinam District. Block level task force was identified for second green revolution based on vision 2023 of Tamil Nadu State, Demonstration, campaign agricultural technologies were carried out under cluster approach.

Coordination activities between KVK and ATMA during 2016-17

S. No.	Programme	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks
1	Meeting	16	4	
2	Trainings	37		
2.1	ATMA sesame FFS attended as resource person on 22.04.2016 at Puthagaram, Vavvaladi, Thirupugalur,	3	-	
2.2	As a resource person for ICM in pulses training conducted by ADA, Kilvelur. (25male & 10 women)- ATMA On 20.05.2016 at Athipuliyur, (Kilvelur block)	1		
2.3	Training given on "Water harvesting and Irrigation management". ATMA (Male-24 & Women-6) On 01.9.16 at Kilvelur	1		
2.4	As a resource person for give a lecture about seed production techniques. (Seed village programme – ATMA) Male 36, Female 4 On 3.11.16 at Kovilpathu, (Thalainayaru block)	1		
2.5	As a resource person for give a lecture about seed production techniques. (Seed village programme – ATMA) – Male 36, Female 4 On 3.11.16 at Kadinelvayal, (Vedaranyam block)	1		
2.6	As a resource person for give a lecture about ICM in paddy under ATMA-Farm school. (17 men & 8 women)	1		

	On 05.01.17 at Nangudi, (Kilvelur block)			
2.7	As a resource person for give a lecture about ICM in paddy under ATMA. (40 men farmers) On 05.01.17 at Balakurichi, (Keelaiyur block)	1		
2.8	As a resource person for give a lecture about ICM in paddy under ATMA-Farm school. (20 men farmers) On 09.01.17 at Nagakudaian, (Vedaranyam block)	1		
2.9	As a resource person for give a lecture about IWM in paddy under ATMA-Farm school-(Keelaiyur block farmers)- 36 men On 23.01.17 at KVK,SKL	1		
2.10	22.04.2016, Demo on sesame FFS on 22.04.2016 at Puthagaram, Vavvaladi, Thirupugalur	1		
2.11	Azolla production, Vermicompost, Roof top garden and KVK activities to Farmers from Extension Reforms Scheme ATMA on 04.08.2016 for Alangananallur block, Madurai district	1		
2.12	Azolla production, Medicinal plant garden, Tree seedling production and Vermicompost production technology, ATMA farmers on 21.09.2016 at KVK Sikkal for Kovilpatti block, Thoothukudi district farmers	1		
2.13	Azolla production, Importance & uses Medicinal plant garden, Tree seedling production and Vermicompost production technology, ATMA farmers on 21.09.2016 at KVK, Sikkal	1		
2.14	Tree seedling production techniques and Vermicompost production technology ATMA farmers from Vilathikulam block of Thoothukudi on 28.09.2016	1		
2.15	Vermicompost technologies on 28.9.2016 at KVK, Sikkal for Karunkulam block of Thoothukudi dt.	1		
2.16	Establishment of Kitchen garden/Roof Top garden, ATMA farmers on 21.02.2017 at Vedaranyam block	1		
2.17	Value addition in rice, pulses, fruits and vegetables , ATMA farmers on 21.02.2017 at Vedaranyam block	1		
2.18	Farm mechanization ATMA farmers on 23.01.2017 at Keelaiyur block	1		
2.19	Post harvest technology and value addition in rice on 23.01.2017 at Keelaiyur block	1		
2.20	Tree seedling production techniques and Vermicompost production technology, ATMA farmers on 29.09.2016 for Kadavur block of Karur district,	1		
2.21	Activities of KVK and demo units at Kuthalam block on 20.10.2016	1		
2.22	Post harvest technology and value addition Officials from Dept. of Agricultural Marketing, on 21.11.2016 at KVK, Sikkal	1		
2.23	Post harvest management and value addition in rice and pulses Farmers on 22.11.2016 at KVK, Sikkal	1		
2.24	Farm Mechanization and demonstration of mat nursery for machine transplanting during Farm School on 23.11.2016 at Mayiladuthurai	1		

2.25	KVK activities and services Officials from Dept. of Horticulture on 24.11.2016 at KVK, Sikkal	1		
2.26	Recent Technologies in Vegetable cultivation Horticulture Department Officials, Nagapattinam on 24.11.2016 at KVK, Sikkal	1		
2.27	Seed village training-IPDM and drought management in rice on 30.11.2016 at Sembianmathevi	1		
2.28	Seed village programme – ATMA- lecture about seed production techniques at Sembianmathevi on 30.11.2016	1		
2.29	Pulse production technologies to ATMA farmers on 10.01.2017 at Kilvelur	1		
2.30	ICM, IWM , INM and IPDM for rice ATMA Farmers on 23.01.2017 At KVK, Sikkal	1		
2.31	ICM in paddy and Drought management ATMA FARMERS on 05.01.2017 at Nangudi Village	1		
2.32	Post harvest technology and value addition in rice for Keelaiyur block ATMA FFS Farmers on 23.01.2017	1		
2.33	Groundnut cultivation machineries on 29.12.2016 at Pushbavanam	1		
2.34	Tree cultivation techniques and pulses production technologies ATMA farmers on 10.01.2017	1		
2.35	About KVK activities ATMA Farmers on 11.01.2017 at KVK , Sikkal	1		

03	Extension Programmes	Field diagnostic visits, interaction meeting and exposure visit were made	12	24	970 farmers were benefitted and 120 extension personal were benefitted
04	Exhibition	<ul style="list-style-type: none"> • PMFBY programme • Kai Kisan Week programme . • Samba Special package Exhibition • Mechinery mela at TNAU, Coimbatore 	4	4	2498 farmers were attended and benefitted
06	Extension Literature	INM, IPDM technologies for rice, Pulses Brinjal and ICM in Rice, pulses and cotton	12	-	-

Functional linkage with different organizations 2016-17

Linkage Agency	Funds Received (Rs)	Expenditure (Rs)	Area covered	Farmers Benefited (Nos)	Remarks
District Administration	0	0	0	2500	Farmers Grievance Day meeting at Collectorate during every month.
Department of Agriculture	0	0	0	580	Monthly Zonal Meeting and ATMA farmers training

AIR, Karaikkal	0	0	0	27 programme	<ul style="list-style-type: none"> • IPDM in Rice, Pulses and Sesame and horticultural crops on 07.06.2016 at AIR, Karaikkal • Live programme on Cultivation techniques of tree species suitable to Nagapattinam district on 28.06.2016. Prosopis eradication and cultivation techniques of Tree species suitable to Nagapattinam district on 05.07.2016 • AIR, Karaikal - "Preservation technology of fruits and vegetables" Live on 24.11.2016 (Time : 7.30 pm) • Kisan Vani live programme on 03.11.2016 about Sandal and Red sandal cultivation technologies. • Kisan Vani live programme on 11.11.2016 about Sandal and Red sandal cultivation technologies • AIR Karaikal Radio Programme on "Preservation technology of fruits and vegetables" Live on 08.12.2016 (Time : 7.30 pm) at Karaikal. • AIR Karaikal Radio Programme on "Nutritional importance and medicinal uses of greens" on 08.12.2016 (Time : 7.30 pm) at Karaikal. • AIR Karaikal - IPDM in Samba Thaladi rice- 15.12.2016,23.12.2016 • Recorded Radio programme on 20.12.2016 about Importance of Tree cultivation and Environmental protection-Karaikal FM • Recorded Radio programme on 20.12.2016 about Forestry related KVK activities-Karaikal FM • Recorded Radio programme on 20.12.2016 about Guidance to SHGs to start enterprises-Karaikal FM • Recorded Radio programme on 20.12.2016 about
----------------	---	---	---	-----------------	---

					<p>Agricultural Extension related KVK activities- Karaikal FM</p> <ul style="list-style-type: none"> Recorded Radio programme on 20.12.2016 about Millets for healthy life -Karaikal FM. All Recoded Radio programmes on 20.12.2016 were broadcasted in Karaikal FM <ul style="list-style-type: none"> Live Telecast (Kisan Vani) in the topic on “Importance of Agricultural Machineries in Nagapattinam District on 31.01.2017 in All India Radio –Karaikal FM. Live Telecast (Kisan Vani) in the topic on “Importance of Horticulture in Nagapattinam District” has been given on 31.01.2017 through All India Radio – Karaikal. Live Telecast (Kisan Vani) in the topic on “Importance of Home Science in Nagapattinam District” has been given on 31.01.2017 through All India Radio – Karaikal.
--	--	--	--	--	--

NGO-Centre for Convention Development	0	0	0	35	Exposure visit was arranged to TNAU, Coimbatore on Farm machinery Mela 10.2.2017 for 10 farmers
NHM Department of Horticulture	0	0	0	33	Third party Inspection on Drip irrigation unit at farmers field at Nagapattinam Dt.
RKVY	375000	375000	0	1500	Fifteen training were conducted oin Enhasncinmg pulse production technologies
PMFBY programme	185000	185000	0	717	PMFBY Awareness programme on 20.08.2016 at Collectorate Nagapattinam
ADM Women College, Nagapattinam	0	0	0	78	Jai Kisan Jai Vigyan Programme was conducted on importance of Agriculture at ADM Women College, Nagapattinam on 23.12.2016
Line Departments	0	0	0	1500	Exhibition on Samba special package conducted at Vizhunthamavadi village on

					03.09.2016
NABARD	0	0	0	82	Training “Preservation Technology, Value Addition and Marketing of Vegetables and Fruits” and exhibited value added products from rice, pulses, vegetables and fruits at KVK, Sikkal under Jai Kisan Programme
NFSM -ICAR-KVK	300000	300000	40 hectares	111	Cluster Front Line Demonstration Programme on Pulses (Green gram CO 8 and Black gram VBN 6) at 11 Cluster villages. December 2016

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

Third party Inspection were conducted on Micro irrigation unit provided to the horticulture farmers in Nagapattinam district 31 farmers field has been inspected 2016-17.

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

12.F. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	NADP -Pulses	Training on Enhancing pulse production technologies	3,75,000	3,75,000	15 numbers of Training were conducted for 1500 farmers

12.G. Kisan Mobile Advisory Services

Sl.No	Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
1	April 2016	4	9261	4
2	May 2016	1	951	6
3	August 2016	5	2008	4
4	October 2016	3	6778	2
5	November 2016	4	9261	3
8	December 2016	7	17011	7
10	January 2017	6	14845	2
11	February 2017	6	14845	5
12	March 2017	45	11108	2
	Total	81	86068	35

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	Vermicompost Production through Silpaulin Vermi Bag and cement tank	2013	-	African Earthworm	Vermi compost Earth worm	3925 kgs. 1kg.	3100 --	31890 400	Sold to the farmers
2	<i>Pseudomonas</i>	2013	-	<i>Pseudomonas florescence 1</i>	-	464 kg	4640	46400	Sold to the farmers
3	Coconut seedlings	2011	-	East Coast Tall	Coconut seedling	1690 No	50700	81321	Sold to the farmers
4	<i>Azolla</i> Production Unit	2011	1 cent	<i>Azolla microphilla</i>	<i>Azolla</i> as seed material	45.5 kg	-	275	35.5 kg of <i>azolla</i> were sold and 10 kg were used in kvk farm

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

Name of the crop	Date of sowing	Date of harvest	Area (ac)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. (Kg)	Cost of inputs	Gross income	
Cereals									
Paddy	21.09.16	10.02.17	9.95 ac	TKM 13	Seed (TFL)	15310	89500	436350	Under processing
Kuthiraivali	25.07.16	11.11.16	0.17 ac	CO(KV2)	Seed (TFL)	17.5	250	2730	Sold
						28			

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	
1.	Vermicompost	3925 kg	3100	31890	Sold to the farmers
2.	Azolla	45.5 kg	-	275	35.5 kg of azolla were sold and 10 kg were used in kvk farm
3.	<i>Pseudomonas</i>	464 kg	4640	46400	Sold to the farmers

13.D. Performance of instructional farm (livestock and fisheries production) :Nil**13.E. Utilization of hostel facilities**

Accommodation available (No. of beds): 20 beds

Month	No. of trainees stayed	Trainee days	Reason for shortfall
August - October	13	90	Thirteen Students from AD&RC, Trichy for RAWE programme

13.F. Database management

S. No	Database target	Database created
1	Farmers database	4605
2	KVK, Nagapattinam, District Inventory	Completed and report was sent to DEE, TNAU and ICAR-ATAR, Bangaluru

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

PART XIV - FINANCIAL PERFORMANCE 2016-17

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	Coimbatore	-	-	-	-	-
With KVK	State Bank of India	Nagapattinam	879	ICAR-KVK	10977883105	611002001	SBINO000879

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

S.No.	Particulars	Budget Estimation	Revised Estimation	Budget Utilization (Rs)
A. Recurring Contingencies				
1	Pay & Allowances	10167000	9043000	10592439
2	Traveling allowances	150000	350000	349799
3.Contingencies				
a	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance	250000	250000	250000
b	POL, repair of vehicles, tractor and equipments	175000	175000	174999
c	Meals/refreshment for trainees	70000	70000	69973
d	Training material	25000	25000	24981
e	Front line demonstration	220000	220000	220000
f	On farm testing	96000	96000	96000
g	Integrated Farming System (IFS)	30000	30000	29990
h	Training of extension functionaries	25000	25000	24991
i	Extension Activities	10000	10000	10000
j	Farmers Field School	30000	30000	30000
k	EDP/Innovative activities	30000	30000	30000
l	Soil & Water Testing & issue of Soil Health Cards	50000	50000	50000
m	Display Boards	10000	10000	10000
n	Maintenance of building	50000	50000	49598
o	Library	10000	10000	9940
Non- Recurring Contingencies				
1	Equipments & Furniture			

	a)Office Automation	300000	300000	300000
	b)Furniture & Fixtures	100000	100000	100000
	c) Portable Carp Hatchery	300000	300000	0
2	Works			
	a) Repair & Renovation	300000	300000	300000
3	Vehicle			
	a) 4 Wheeler (Replacement)	800000	800000	800000
GRAND TOTAL		13198000	12274000	135223779

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2014 to March 2015	2.53	6.31	6.54	2.31
April 2015 to March 2016	2.31	7.24	8.19	1.35
April 2016 to March 2017	1.35	7.33	6.96	1.72

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

S. No	Name of the staff	Designation	Title of the training programme	Institute where attended	Date
1	Dr. A. Anuratha	PC	Annual Review Workshop presentation	KVK, Wayanad	18.04.2016-24.04.2016
2	Dr. J. Thilagam	SMS (Ag. Extension)	Workshop on DPR preparation in IAMWARM programme	Thanjavur	20.04.2016
3	Dr. J. Thilagam	SMS (Agri.Extn.)	Seed Production meeting	TNAU, Coimbatore	03.05.16
4	Dr.P.Kamaraj	SMS(FM)	Arivial Tamil Velanmai Conference	ADAC&RI Trichy	05.05.2016 & 06.05.2016
5	Dr. A. Anuratha	PC	Preliminary meeting on Kitchen waste biogas plant by IFAD, Chennai	Chennai	23.05.2016
6	Dr. R. Ravi	SMS (Forestry)	E-Content (Tamil) Development	TNAU, Coimbatore	26.05.2016 to

			Workshop for Agricultural Professionals		28.05.2016
7	Dr. J. Thilagam	SMS (Agri.Ext.)	Orientation meeting for DPR preparation in TN IAMWARM	MDPU Office, Chennai	26.05.2016
8	Dr. J. Thilagam	SMS (Agri.Ext.)	Social Scientist Meet	TNAU, Coimbatore	08.06.2016 & 09.06.2016
9	Dr.P.Kamaraj	SMS(FM)	Pre review meeting -Externally Funded Project on "Development of Power Operated Sugarcane Sett Cutter cum Detopper and Detrasher	TNAU, Coimbatore	11.06.2016
10	Dr.A.Anuratha	PC	CRS meeting	New Delhi	18.06.2016-23.06.2016
11	Dr.P.Kamaraj	SMS(FM)	Crop Scientist Meet on Agricultural Engineering and Home Science	TNAU, Coimbatore	22.06.2016 & 23.06.2016
12	Dr.P.Kamaraj	SMS(FM)	Staff training programme on Biogas Technology	TNAU, Coimbatore	12.07.2016 to 15.07.2016
13	Dr.A.Anuratha	PC	PC orientation training at Tamil Nadu Open University	Chennai	12.07.2016
14	Dr.A.Anuratha	PC	Participate in SWC meet	TNAU, Coimbatore	05.07.2016 & 06.07.2016
15	Dr.A.Anuratha Dr. R. Ravi	PC and SMS (Forestry)	Pulses intensification review meeting	AC & RI, Madurai	20.07.2016
16	Dr.A.Anuratha Dr.P.Kamaraj Dr. J. Thilagam Dr. J. Selvi Mr.V.Gnanabharathi	PC, SMS(FM), SMS(Extn) SMS(HSC) PA(Tech)	Workshop on strengthening of Farmer Producer Company and exhibition	Mangainallur, Kuthalam Block	26.07.2016
17	Dr. R. Ravi	SMS (Forestry)	First Annual Work on "Consortium of Industrial Agroforestry"	FC & RI, Mettupalayam	20.09.2016
18	Dr. J. Selvi	SMS(HSC)	Attended National	AC & RI,	19.09.2016

			Seminar on "Functional foods to achieve nutrition and health security"	Madurai	
19	Dr.P.Kamaraj	SMS(FM)	Attended crop insurance (PMFBY) meeting	Collector Office, Nagapattinam	15.10.2016
20	Dr. R. Ravi	SMS (Forestry)	Attended Question Paper Authoring and Evaluation training	CoE, TNAU, Coimbatore	28.12.2016 to 31.12.2016
21	Dr. R. Ravi	SMS (Forestry)	Participated in Syllabus review meeting cum teaching seminar	FC and RI, Mettupalayam	06.01.2017
22	Dr. J. Thilagam	SMS (Agri.Extn)	Short course on Emerging Trends in Communication and Essential Skill sets of Extension Professionals for Effective Technology Transfer	AC&RI, Madurai	06.02.2017 to 15.02.2017
23	Dr.A.Anuratha Dr.P.Kamaraj Dr.M.Tamilselvan Dr.R.Ravi Dr.J.Selvi Dr.M.Alagar	PC, SMS(FM), SMS (Horti), SMS (Forestry), SMS(HSC) SMS (Ento)	Pre Action Plan Meet 2017	KVK Thirupathisaram	10.02.2017
24	Dr.A.Anuratha	PC	National Symposium on 'Applications of Radioisotopes and tracer techniques in Agriculture and Environment'	TNAU, Coimbatore	16.02.2017 and 17.02.2017
25	Dr. J. Thilagam	SMS (Agri.Extn)	Training on Participatory Impact Monitoring and Assessment (PIMA)	MKVK, Arepalayam	21.02.2017 to 25.02.2017
26	Dr.M. Tamil Selvan	SMS(horti)	To attend ATMA Action plan meeting	Ooty	26.02.2017-01.03.2017
27	Dr. J. Selvi	SM(HSC)	To participate National Workshop on "Agricultural Extension and Nutrition	HSC & RI, Madurai	27.02.2017 to 01.03.2017

			Linkages: Towards Nutrition Security and Better Health”		
28	Dr.P.Kamaraj Dr. J. Thilagam Dr.R.Ravi Dr. J. Selvi Dr.M.Alagar	SMS	2 nd KVK Symposium on Frontline Extension Programme for Realizing Higher Productivity and Profitability in Farming	TNAU, Coimbatore	0.7.03.2017 to 08.03.2017
29	Dr. J. Selvi	SM(HSC)	To attend Capacity Building Programme on Food Processing	HSC & RI, Madurai	13.03.2017 to 16.03.2017
30	Dr. A. Anuratha	PC	To participate in Annual Action plan (2017-18)	KVK, Namakkal	15.03.2017- 18.03.2017

16. Any other important and relevant information which has not been reflected above :

1.PARTICIPATORY RURAL APPRAISAL

Participatory Rural Appraisal was conducted at Sitharkadu on 30.01.2017 and Kongarayanallur on 01.02.2017 and Interaction meeting was conducted on 02.02.2017 at KVK , Sikkal by involving district level progressive farmers and line department officials. Focus group discussion was conducted to know the resources, needs and problems of farmers of Nagapattinam district to plan for future intervention.

SUMMARY FOR 2016-17

I. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops

Thematic areas	Crop	Name of the technology assessed	No. of trials
Varietal Evaluation	Paddy	Assessment of saline tolerant rice varieties for Nagapattinam District	5
Varietal Evaluation	Paddy	Assessment of suitable BPH and BLB resistance rice varieties in Nagapattinam district	5
Varietal Evaluation	Green Gram	Assessment of suitable Green gram varieties for Nagapattinam District	5
IPM	Coconut	Assessment of Pheromone traps for the management of coconut red palm weevil	5
INM	Water melon	Assessment of foliar application of Growth Regulators on fruit yield of Watermelon in Nagapattinam District	5

Varietal Evaluation	Brinjal Hybrid	Assessment of Brinjal Hybrid for Nagapattinam district	5
Varietal Evaluation	Fodder sorghum	Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam District	5
Total			35

Summary of technologies assessed under livestock : Nil

Summary of technologies assessed under various enterprises : Nil

Summary of technologies assessed under home science : Nil

II. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops : Nil

Summary of technologies assessed under refinement of various livestock : Nil

Summary of technologies refined under various enterprises : Nil

Summary of technologies refined under home science : Nil

III. FRONTLINE DEMONSTRATION

3.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										
Fodder	Demonstration of Multi-crop fodder production model for Nagapattinam District	COFS31, HL. CNCO 5. Sesbania grandiflora	-	Irrigated	11	0.2	8	4	6	5.2	13.0	3219	5073	1854	1.60	-	-	-	-
Cotton	Demonstration on Eco friendly IPM modules for major sucking pest in cotton	-	RC H 65 9	Irrigated	10	4	35.5	26.9	31.2	20.9	33.0	61644	151247	89603	2.2	77481	101244	23763	1.2
Paddy	Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam District	TKM 13		Irrigated	10	4	40	25	32.5	27.5	18	34962	67365	32403	1.9	34962	58350	23388	1.7

Paddy	Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice	ADT 38	-	Irrigated	20	8	48.2	43.5	45.85	41.5	9.38	37000	68775	31775	1.85	37000	62250	25250	1.68
Paddy	Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy	CR1009	-	Irrigated	10	4	45.15	41.15	43.15	34.73	19.5	39,167	60,084	20,917	1.54	43658	48803	5145	1.12
Paddy	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	Seed drill cum fertilizer drill		Direct sown	10	4	38.9	33.9	36.4	33.5	9	34200	54218	20018	1.6	34200	50288	16088	1.4
Cluster Bean	Demonstration of Cluster bean variety MDU -1 in Nagapattinam District	MDU -1	-	Irrigated	10	2	86.9	65.5	75.88	57.35	24.42	33120	93020	59900	2.81	28087	57345	29258	2.04
Brinjal	Demonstration of IPM strategies for Brinjal borers	Local	-	Irrigated	10	4	110.12	75.12	92.62	50.98	44.95	120580	303030	1,82,451	2.35	1,11,150	1,78,441	67,290	1.45

Banyard Millets	Introduction of short duration, drought tolerant and high yielding variety CO (KV)2	CO (KV)2	-	Rainfed	10	4	17.5	8.7	13.1	-	-	8750	20115	11365	2.29	-	-	-	-
Groundnut	Demonstration of ICM in Newly released Groundnut variety VRI 8 in Nagapattinam District	VRI 8	-	Rainfed	10	2	23	19	21	16	23	73587	120750	47163	1.64	73587	92000	18413	1.25
Forage crop	Introduction of short duration, high yielding variety CO 9, higher protein content (21.56%), suited for intercropping with sorghum and maize	CO 9	-	Rainfed	20	4	146.3	76.8	76.9	-	-	8550	14630	6080	1.7	-	-	-	-
Animal Husbandry	Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cattle	TANUVAS Mineral Mixture	-	-	10	20 animals	320 litre/cow/month	180 litre/cow/month	280 litre/cow/month	150 litre/cow/month	46	2800	6720	3920	2.4	2300	3600	1300	1.56

Agro Forestry	Demonstration of high yielding African marigold variety MDU 1 under Casuarina based Agro forestry system	Marigold		Irrigated	10	4	Under progress
---------------	--	----------	--	-----------	----	---	----------------

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

Demonstration and Farmers Participatory Seed production of TKM 13 rice variety in Nagapattinam District

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
White ears (%)	1.1	2.4
Dead Heart (%)	3.5	5.6
Leaf folder incidence (%)	6.6	10.6

Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
No. of productive tillers/m ²	353	347

Demonstration of Eco friendly pest and disease management in Samba/Thaladi paddy

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
% dead heart	3.63	13.29
%white ear	0.857	2.90
%leaf folder damage (veg. phase)	2.787	11.92
%leaf folder damage (flowering stage)	1.135	7.28
Blast PDI	0.73	5.12

BLB PDI	2.47	9.51
% false smut infestation	7.48	3.33

Demonstration of IPM strategies for Brinjal borers

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
% stem borer incidence	0.65	9.17
% shoot damage	0.27	3.38
% fruit damage	0.32	6.00

Demonstration of Kuthiraivali CO (KV) 2 in Nagapattinam District

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Yield (Q/ha)	13.12	-
No. of ear head/Plant (No.)	26	-
Plant height (cm)	154	-

Demonstration of ICM in Newly released Groundnut variety VRI 8 in Nagapattinam District

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
No. of Plants/m ²	32	28
No. of pods /plant (Nos.)	19	16
% of pest and disease incidence	20%(Tikka leaf spot)	32

Demonstration of Fodder Cowpea CO 9 in Nagapattinam district

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Biomass Yield (Q/ha)	146.30	121.80

Plant height (cm)	60	55
-------------------	----	----

Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cow

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
% of infertility rate reduction	40%	-

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

5.B.3. Fisheries :

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m ²)	Yield (gram)			Check if any	% Increase	*Economics of demonstration Rs./unit) or (Rs./m ²)				*Economics of check Rs./unit) or (Rs./m ²)			
					Demo					Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BC R
					H	L	A										
Gift Tilapia	Demonstration of Gift Tilapia culture in farm pond	Gift Tilapia	5	2.5 ha	460 gm	390 gm	429 gm	332 gm	14.29 %	23660	59273	35613	2.50	24950	43380	18430	1.74

Demonstration of Gift Tilapia culture in farm pond

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Growth rate (Gram)	460 gms	390gms

5.B.4. Other enterprises

Enter prise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area {m ² }	Income/Month (Rs)				% Increase	*Economics of demonstration (Rs./Month)				*Economics of check (Rs./month)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Hme Science	EDP on value addition in fish and prawn	-	4 vocational training (85 participants)	-	42500	37500	40000	-	-	23000	40000	17000	1.7	-	-	-	-

Group members : 25 women involved

Prepared fish and Prawn based products : Fish & prawn pickle, dry fish pickle, dry fish, fish & Prawn Thokku, Fish Vathal, Vadagam

5.B.5. Farm implements and machinery:

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)			
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
							H	L	A										
Paddy	Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district	Seed drill cum fertilizer drill		Direct sown	10	4	38.9	33.9	36.4	33.5	9	34200	54218	20018	1.6	34200	50288	16088	1.4

Demonstration of seed cum fertilizer drill for paddy in Nagapattinam district

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Plant population / m ²	43	73
Productive tillers / m ²	368	297

Protective cultivation	2	62	4	78	12	-	12	74	4	78
Integrated Pest and Disease management	-	-	-	-	-	-	-	-	-	-
Soil Health and Fertility Management	-	-	-	-	-	-	-	-	-	-
Soil fertility management	6	169	76	245	73	25	98	242	101	343
Home Science/Women empowerment	-	-	-	-	-	-	-	-	-	-
Value addition	3	175	41	216	53	2	55	228	43	271
Plant Protection	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Production of Inputs at site	4	172	112	284	81	47	128	253	159	412
Agro-forestry	-	-	-	-	-	-	-	-	-	-
Others - Fisheries										
Rearing techniques of Gift Tilapia fish culture in Farm pond	1	34	6	50	10	-	10	44	6	50
TOTAL	19	827	378	1203	282	111	393	1109	489	1598

4.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										
Integrated Crop Management	6	251	41	292	42	5	47	293	46	339
Integrated farming	1	17	-	21	4	-	4	21	-	21
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
a) Vegetable Crops	-	-	-	-	-	-	-	-	-	-
Protective cultivation	1	18	2	20	-	-	-	20	-	20
Hybrid vegetable cultivation techniques	-	-	-	-	-	-	-	-	-	-
Production of low value & high volume crop	-	-	-	-	-	-	-	-	-	-
Cultivation of fruits and vegetables	-	-	-	-	-	-	-	-	-	-
Tapioca cultivation technologies	1	36	2	38	6	-	6	42	2	44

4.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	3	-	-	-	-	-	-	96	7	183
Quality tree seedling production and Forest Nursery management	1	-	-	-	-	-	-	42	-	42
Post harvest technology, value addition and marketing	1	-	-	-	-	-	-	14	-	14
Hi tech technologies in vegetable cultivation	1	-	-	-	-	-	-	23	2	25
Nutritional importance and health aspects	1	-	-	-	-	-	-	30	30	60
Total	7							205	39	324

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
-	-	-	-	-	-	-	-	-	-	-

4.G. Sponsored training programmes conducted

Sl.No	Area of training	No. of Course	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Pulses production technology	15	1016	241	1257	175	68	243	1191	309	1500
	Total	15	1016	241	1257	175	68	243	1191	309	1500

Details of sponsoring agencies involved

- State Dept. of Agriculture
- NADP
- NGOs

4.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	Rearing of milch animals and fodder cultivation technology	2	66	2	80	12	-	12	78	2	80
	Total	2	20	68	89	7	22	29	27	90	117

V. Extension Programmes

Extension Programmes (including extension activities undertaken in FLD programmes)

Sl. No	Activities	No. of Programmes	No. of participants		No. of SC/ ST		No. of Extension personnel	
			Male	Female	Male	Female	Male	Female
1	Scientific visit to farmers field	154	584	88	137	45	53	16
2	Field day	4	58	15	3	-	30	7
3	Kisan Mela	1	480	75	120	42	48	23
4	Exhibitions	8	1205	200	254	121	22	7
5	Film show/video shows	7	290	40	46	16	-	-
6	Campaign	1	616	127	142	61	48	28
7	Seminar	-	-	-	-	-	-	-
8	Zonal workshop	10	-	-	-	-	312	88
9	Farmer advisory service	223	461	158	162	121	27	6
10	Demonstrations	42	302	280	147	123	22	-
11	Exposure visits	2	45	10	15	3	35	5
12	Radio talk/broad cast	28	Mass coverage					
13	TV coverage/telecast	7	Mass coverage					
14	News paper coverage	72	Mass coverage					
15	Extension literature published	5	124 nos.					

Details of other extension programmes

Particulars	Number
Extension Literature	41
News Letter	3
News paper coverage	72
Technical Articles	21
Technical Reports	58
Radio Talks	28
TV Talks	7
Total	

PRODUCTION OF SEED/PLANTING MATERIAL

Production of seeds by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Quantity of seed	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Paddy	TKM 13	-	14545 kg	436350	Stock on hand
	Paddy	ADT 45	-	227 kg	5902	5
		ADT 45		1416 kg	36816	Stock on hand
	Kudiraivali	CO(KV2)	-	17.5 kg	1050	10
		CO(KV2)	-	28 kg	1680	Stock on hand
Fodder crop seeds	C:N grass	CO3	-	2900 Slips	1450	25
Others (specify)						
	Vermicompost	-	-	3925 kg	31890	190
	Earthworms	Eisenia foetida		1	400	1
	Banana (Plantain)	Monthan		691	1037	110
	Amaranthus			6 bundle	30	6
	Banana flower bud	Monthan		6	30	6
	Casuraina seedlings	C. equisetifolia		25072	12545	23
	Teak seedlings			1840	18200	57
	Coconut seedlings	ECT		1690	81321	232
	Protray			31	775	6
	Alternanthera			4 bundle	20	3
	Pasalaikeerai			2 bundle	10	1
	Radiah			250 gm	10	1
	Agathi			3 bundle	20	3
	Green gram (Gr)			11 kg	440	10
	Azolla			35.5 kg	275	16
	Paddy straw			850	1700	4
	Paddy Grain	ADT 46		3280	49856	DPC
	Paddy Grain	CR 1009		3800	55480	DPC
	Paddy	CR 1009 sub-1		1575	37800	31
	Pseudomonas	P.f-1		464	46400	220
	Tender coconut	Dwarf-COD		79	1185	44
	Fish	Pangasius		4.5	450	4
	Gunny bags			44	2200	10
	Coconut tonic			505 pkt	7575	129
	Vegetable seed pocket			77	3850	73
	Cocopeat			1362	8172	83

	Paddy seed	ADT 46		1385 kg	36010	3
	Seminar hall rent			5½ days	8250	
	Maize cob			154	462	80
	CO3 fodder bundle			21	210	18
	Mango Jam			11.45 kg	2556	35
	Mango squash			54.35 lt	8161	72
	Tomato thokku			4.2 kg	1246	11
	Thulasi			3 bundle	15	2
	Mango			1 kg	10	1
	Paddy	TKM 13		420 kg	9630	27
	Tomato seedlings			2 tray	200	1
	Fish pickle			1.95 kg	1170	8
	Prawn pickle			1 kg	600	4
	Bhendi			25.330 kg	2112	166
	Cluster bean			105 kg	1233	113
	Paddy	ADT 45		180 kg	4680	5
	Amla squash			22.96 lt	6343	284
	Amla candy			200 gm	120	1
	Sitharathai			3 bundle	30	1
	Malai vembu			1	10	1
	Thavasikeerai			2	10	1
	Veenghai			15	150	2
	Kuthiraivali seed			17.5 kg	1050	10
	Mango thokku			800 gm	184	7
Total						

Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Seedlings	Coconut seedlings	ECT	-	1690	81321	232
Fodder crop saplings	C:N grass	CO3	-	2900 slips	1450	25
Tree Seedlings	Casuraina seedlings	<i>C.equisetifolia</i>	-	25072	12545	23
	Teak seedlings		-	1840	18200	57
	Venghai		-	15	150	2
Others(specify)	Vermicompost		-	3925 kg	31890	190
	Earth worms	<i>E.foetida</i>	-	1 kg	400	1
Total				35443	145956	530

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity (Kg)	Value (Rs.)	Number of farmers to whom provided
Bio-fungicide	<i>Pseudomonas</i> (Talc)	464 kg	46400	220
Bio Agents	Cocopeat	1362 kg	8172	83
Others (specify)	Azolla	35.5	275	16
	Vermicompost	3925 kg	31890	190
	Earth worms (<i>E. foetida</i>)	1 kg	400	1
Total		5787.5	87137	510

Production of livestock materials :Nil

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS 2016-17

Details of samples analyzed so far since establishment of SWTL:

Details of samples analyzed during the 2016-17 :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	244	181	53	19750.00
Water Samples	84	79	79	3720.00
Total	328	260	132	23470.00

VIII. SCIENTIFIC ADVISORY COMMITTEE :

Sixth Scientific Advisory Committee meeting was conducted on 23.09.2016 at KVK, Sikkal, Nagapattinam. The meeting was started with prayer. The member secretary of SAC and Programme Coordinator of KVK Dr. A. Anuratha welcome the participants. The meeting was conducted under the chairmanship of the Director of Extension Education Dr. H. Phillip, TNAU, Coimbatore. The Programme Coordinator of KVK, Sikkal Dr. A. Anuratha presented the fifth SAC meeting recommendations and Action taken. The Subject Matter Specialist of KVK presented last year individual activities like OFTs, FLDs and Extension activities (2015-16). The participants from different departments including ATARI Principal Scientist Dr. M. J. Chandre Gowda shared their comments and suggestions.

Action taken on 6th SAC recommendation:

Sl. No.	6 th SAC Recommendations	Proposed by	Action Taken
1.	More number of demonstrations and trainings on water management need to be conducted	Dr. Chandre Gowda Principal Scientist, ATARI, ZONE VIII, Bangalore	<ul style="list-style-type: none"> • Off campus training on Water management was conducted at Periyakuththagai on 25.1.2017 for 41 farmers • On campus training on water management in agricultural crops on 17.03.2017 for 30 farmers • Demonstration on mobile sprinkler and boom sprayer on 17.03.2017.
2.	Demonstrations and trainings on Bee	Dr. H. Philip Director of Extension	--

	Keeping have to be conducted	Education, TNAU, Coimbatore	
3.	Issue training certificates to trainees for the trainings conducted by KVK	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	<ul style="list-style-type: none"> • Certificates issued to 58 trainees during the On -Campus training on “Operation and maintenance of agricultural machines” held on 20.10.016. • Issued certificates to the Anganwadi workers participated in KVK training on 29.11.2016 Nutritional importance and health aspects training • Issued certificates to the students of ADM College for Women who participated competition conducted by KVK on 23.12.2016 in lieu of celebrating Jai Kisan Jai Vigyan and Technology Week • Certificates provided to the farmers who attended vocational training “Rearing of milch animals and fodder cultivation technology” on 23 & 24th March 2017. • This will be followed in all the trainings conducted at KVK
4.	More number of trainings on Post Harvest Technology need to be given	Ms. R. Vidyalakshmi Scientist, IICPT, Thanjavur	<ul style="list-style-type: none"> • Conducted training on Preservation technology and value addition in tomato Farmers & Self Help Group for 39 on 01.09.2016 at KVK, Sikkal. • Conducted training on “value added products from fish and prawn (Fish pickle, prawn pickle, dry fish powder)” on 18.11.2016. SHG members – 57 at KVK, Sikkal. • Post harvest technology, value addition and marketing for Extension Functionaries (14 Nos.), Dept. of Agricultural Marketing on 21.11.2016 at KVK, Sikkal. • Training was conducted on Preservation technology, value addition and marketing of vegetables and fruits for Women groups(82 members) at KVK, Sikkal On 26.12.2016. • Conducted training on value

			<p>addition in fish and prawn SHG members on 10.01.2017 at KVK, Sikkal for 22 SHG members.</p> <ul style="list-style-type: none"> • Conducted training on Value addition in rice, pulses, fruits and vegetables ATMA farmers of on 21.02.2017 at Vedaranyam block for 40 members. • Post harvest technology and value addition in pulses Keelaiyur block farmers on 23.02.2017 at Thirukuvalai for 100 farmers. • Conducted pulses and value addition training to Sirkali block farmers on 02.03.2017 at Sirkali, Neduvasal and Kokkur.
5.	Involve relevant line departments, banks in trainings to explain the Government schemes to the participants	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	<ul style="list-style-type: none"> • Mr. T. Ganesh, District Development Manager, NABARD, Nagapattinam was participated in the training on On campus training “Preservation Technology, Value Addition and Marketing of Vegetables and Fruits” and exhibited value added products from rice, pulses, vegetables and fruits at KVK, Sikkal on 26.12.2016 for 82 farmers • In the On campus training on operation and maintenance of agricultural machineries, Agricultural Engineering department officials were participated and explained the Government schemes to the trainees held on 20.10.2016. • Horticultural department officials were participated and explained the government schemes and success stories of farmers in bhendi cultivation during the field day on 17.11.2016 at Kameshwaram.
6.	Create awareness on ICT in Agriculture to the participants of training programmes	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Created awareness on ICT in Agriculture to the participants in Nine trainings conducted at KVK, Sikkal
7.	Send proposal to ATARI, Bangaluru for seed processing unit	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Under progress
8.	Conduct training programmes involving youth and	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	-----

	conduct follow up study		
9.	Form whatapp group for farmers of Nagapattinam district	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Whatsapp group for farmers of Nagapattinam district was created on 23.01.2017 and technological information's are being shared very effectively 96 nos. of farmers are connected in this group.
10.	Recommend alternate varieties / management practices to control stem borer problem in brinjal	Dr. R. Dhivya Horticulture Officer Nagapattinam	Field diagnostic visit has been carried out on 02.11.2016 at Thandavamoorthy Kaadu village in Keelaiyur block of Nagapattinam district to identify the problem in birinjal. The team of scientists Dr. A. Anuratha, Programme Coordinator, KVK, Sikkal, Dr. K. Rajappan, Professor (Plant Pathology), TRRI, Aduthurai, Dr. M. Alagar, Assistant Professor (Agrl. Entomology) and Dr. M. Tamil Selvan, Assistant Professor (Horticulture) of KVK, Sikkal, Dr. Agila Devi, Assistant Professor (Plant Pathology) and Dr. K. Vanitha, Assistant Professor (Crop Physiology) of TRRI, Aduthurai and Thiru Neethimanikam Assistant Director of Horticulture, Nagapattinam. visited the farmers' field and indentified that it is a phomopsis blight caused by the fungus <i>Phomopsis vexans</i> . Relevant Management practices were suggested to the farmers. Report on field diagnostic visit was sent to the Director of Planning and Monitoring to publish in the TNAU Newsletter.
11.	More number of trainings for value addition in fish has to be conducted	Dr. Nagoor Meeran Director of Extension Education, TNFU, Nagai	<ul style="list-style-type: none"> • Conducted training on "value added products from fish and prawn (Fish pickle, prawn pickle, dry fish powder)" on 18.11.2016. SHG members – 57 at KVK, Sikkal. • Conducted training on value addition in fish and prawn SHG members on 26.12.2016 at KVK, Sikkal for 82 SHG members. • Conducted training on value addition in fish and prawn SHG members on 10.01.2017 at KVK, Sikkal for 22 SHG members.

			<ul style="list-style-type: none"> Conducted training on value addition in fish and prawn SHG members on 30.03.2017 at KVK, Sikkal for 23 SHG members
12.	Propose OFT / FLD in sugarcane and cotton	Mr. D. Ganesh, AGM NABARD, Nagai	---
13.	Promote <i>Bixa</i> and <i>Dalbergia sissoo</i> in Nagapattinam district in consultation with the Forest Scientists of FC & RI, MTP	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	<i>Dalbergia sissoo</i> tree seedling planted at KVK farm on 24.01.2017
14.	Display machineries and tools related to sowing to harvest in rice at KVK, Sikkal	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Preparation of posters related to rice cultivation from sowing to harvest is in progress..
15.	Develop suitable Agro Forestry model for Nagapattinam district at KVK, Sikkal	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Agro forestry model was developed at KVK, Sikkal as demonstration unit to the farmers of Nagapattinam district with cultivation of Malaivembu in 10 cents and planting of Casuarina was completed in 0.5 acre and Ecalyptus planting in an area of 2.5 acres at KVK , Sikkal
16.	Open sales counter in front of KVK	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Purchase proposal approved for the purchase of Open Sales Counter.
17.	Include awareness on food safety and quality testing in home science training	Ms. R. Vidyalakshmi Scientist, IICPT, Thanjavur	<ul style="list-style-type: none"> Awareness on food safety and quality testing is insisted in the home science training are as follows.. Conducted training on Preservation technology and value addition in tomato Farmers & Self Help Group for 39 on 01.09.2016 at KVK, Sikkal. Conducted training on “value added products from fish and prawn (Fish pickle, prawn pickle, dry fish powder)” on 18.11.2016. SHG members – 57 at KVK, Sikkal. Post harvest technology, value addition and marketing for Extension Functionaries (14 Nos.), Dept. of Agricultural Marketing on 21.11.2016 at KVK, Sikkal. Training was conducted on Preservation technology, value

			<p>addition and marketing of vegetables and fruits for Women groups (82 members) at KVK, Sikkal On 26.12.2016.</p> <ul style="list-style-type: none"> • Conducted training on value addition in fish and prawn SHG members on 10.01.2017 at KVK, Sikkal for 22 SHG members. • Conducted training on Value addition in rice, pulses, fruits and vegetables ATMA farmers of on 21.02.2017 at Vedaranyam block for 40 members. • Post harvest technology and value addition in pulses Keelaiyur block farmers on 23.02.2017 at Thirukuvalai for 100 farmers. • Conducted pulses and value addition training to Sirkali block farmers on 02.03.2017 at Sirkali, Neduvasal and Kokkur.
18.	Research has to be initiate to find the difference in vermicompost production from hybrid and indigenous breed cowdung	Dr. A. Sivaramakrishnan Regional Joint Director Animal Husbandry, Nagai	-
19.	Develop High density planting of mango in KVK, Sikkal	Th. Jeevanantham Farmer	<ul style="list-style-type: none"> • Area for mango planting has been identified at KVK, Sikkal. • Supply order has been placed for the purchase of mango grafts.
20.	Training on Fishery technology to be given	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	Conducted On campus training on Rearing of Gift Tilapia fish culture in Farm pond on 03.01.2017 by involving TNFU, Nagapattinam.
21.	Steps to be taken to renovate the farmers hostel	Dr. H. Philip Director of Extension Education, TNAU, Coimbatore	USO received for Renovation of farmers hostel to the tune of Rs. 3,00,000/- . The work will be started soon.

IX. NEWSLETTER

Number of issues of newsletter published : 4 Nos

X. RESEARCH PAPER PUBLISHED

Number of research paper published : 5 No

XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND

MICRO-IRRIGATION SYSTEM: NIL

ON FARM TESTINGS



Assessment of Pheromone traps for the management of coconut red palm weevil through cluster approach



Assessment of Saline tolerant rice variety for Nagapattinam Dt.



Assessment of Hybrid Brinjal for Nagapattinam Dt.



Diagnostic field visit in BLB affected paddy at Varathampattu village on 27.12.2016



Assessment of suitable Green gram varieties for Nagapattinam District.



Assessment of fodder sorghum varieties for improving cow milk yield in Nagapattinam Dt

FRONT LINE DEMONSTRATIONS



Demonstration and Farmers Participatory Seed production of TKM 13 rice



Demonstration of Silica Solubilizing Bacteria application for preventing lodging of rice



Demonstration of Eco friendly pest and disease management in Rice



Demonstration of seed cum fertilizer drill for paddy



Demonstration of Kudiraivali CO2



Demonstration of IPM strategies for Brinjal borers



Demonstration of Kudiraivali CO (KV) 2



Demonstration of ICM in Groundnut VRI 8



Demonstration of newly released BHENDI HYBRID (COBhH-4) in Nagapattinam District



Demonstration of Fodder Cowpea CO 9 in Nagapattinam district



Demonstration of Gift Tilapia fish in farm pond



Demonstration of TANUVAS Mineral Mixture to increase milk yield in dairy cow

ON CAMPUS TRAININGS



Demo on DSR - 06.09.2016



Roof top garden-29.07.16



Animal husbandry - 24.3.17



**Mushroom cultivation technology
-13.07.2016**



**Value addition in tomato
01.09.16**



Vermicompost – 29.9.16

OFF CAMPUS TRAININGS



Vegetable cultivation – 5.8.16



Tree cultivation techniques – 26.10.16



IPM in coconut – 5.1.17



Farm Mechanization – 25.1.17

VOCATIONAL TRAININGS



Value addition in Fish and Prawn

Training on NADP Pulses



Pulses technology 14.12.2017



Pulses technology 15.12.2017

EXTENSION ACTIVITIES



Exhibition - 3.9.16



Machinery mela



Black Gram VBN 6 field day 30.9.16



PMFBY - 20.8.16

SPONSORED TRAININGS



Farm Mechanization -20.10.16



**Tapioca cultivation technology-
18.07.16**



ICM in Pulses -14.12.16



Water Mgt Techniques -01.09.16

FARMER'S FIELD SCHOOL





SPECIAL PROGRAMME



Entrepreneurship development through value addition in fish and Prawn

IMPORTANT EVENTS



Prime Minister Fasal Bima Yojana Programme 20.8.2016

Jai Kisan Week Programme 23.12.2016



Swachh Bharath Programme



Drought mitigation for rice 19.12.2016



Jai Kisan Jai Vigyan Week -26.12.2016



**Samba special package exhibition-
03.9.2016**



**District Level Agri Exhibition-
22.11.2016**

PUBLICATIONS & News Clippings

தஞ்சாவூர் 22-8-2016 13



மேளாவாழை தூறிக் காய்வு கற்றிடக் களம் செயல்படுத்த வாகுரை

தஞ்சாவூர் மாவட்டம், தஞ்சை நகரில் உள்ள மேளாவாழை தூறிக் காய்வு கற்றிடக் களம் செயல்படுத்த வாகுரை.

தஞ்சை மாவட்டம், தஞ்சை நகரில் உள்ள மேளாவாழை தூறிக் காய்வு கற்றிடக் களம் செயல்படுத்த வாகுரை.

தினமணி 07 செப்டம்பர் 2016



நோடி நெல் விதைப்புத் தொழில் நுட்பம் பற்றி நவீன தொழில்நுட்பங்கள்

நோடி நெல் விதைப்புத் தொழில் நுட்பம் பற்றி நவீன தொழில்நுட்பங்கள்.

நோடி நெல் விதைப்புத் தொழில் நுட்பம் பற்றி நவீன தொழில்நுட்பங்கள்.

தினமணி 3.12.2016

நாகை & திருவாரூர்

சிக்கல் வேளாண் அறிவியல் நிலையத்தில் காய்கறிகள், பழங்கள் பகப்படுக்காகல் பயிற்சி



நாகை, திருவாரூர்: சிக்கல் வேளாண் அறிவியல் நிலையத்தில் காய்கறிகள், பழங்கள் பகப்படுக்காகல் பயிற்சி.

நாகை, திருவாரூர்: சிக்கல் வேளாண் அறிவியல் நிலையத்தில் காய்கறிகள், பழங்கள் பகப்படுக்காகல் பயிற்சி.

தினமணி 3.12.2016

செயல்படுத்தும் சேய் காய்கறிகளை

செயல்படுத்தும் சேய் காய்கறிகளை.

செயல்படுத்தும் சேய் காய்கறிகளை.

தினமணி 22.5.2016

விவசாய மலர்

விவசாய மலர்.

விவசாய மலர்.

தினமணி 22.5.2016

நோடி நெல் விதைப்புத் தொழில் நுட்பம் பற்றி

நோடி நெல் விதைப்புத் தொழில் நுட்பம் பற்றி.

நோடி நெல் விதைப்புத் தொழில் நுட்பம் பற்றி.

தினமணி 22.5.2016

அதிக மகசூல் பெற தொழில்நுட்ப ஆலோசனை

அதிக மகசூல் பெற தொழில்நுட்ப ஆலோசனை.

அதிக மகசூல் பெற தொழில்நுட்ப ஆலோசனை.

XXXXXXXX