ACTION PLAN OF ICAR-KVK, KANYAKUMARI (TNAU) 2018-19

1. General information about the ICAR-Krishi Vigyan Kendra

1.1	Name and address of ICAR-KVK with Phone, Fax and e-mail	:	ICAR-Krishi Vigyan Kendra Tamil Nadu Agricultural University Thirupathisaram – 629 901 Kanyakumari District Tamil Nadu Phone : 04652-275759, 275758 E-mail : kvkppi@tnau.ac.in
1.2	Name and address of host organization	:	Tamil Nadu Agricultural University Coimbatore - 641 003 Phone : 0422-2431222, FAX : 0422-2431672 E-mail : vc@tnau.ac.in Web : www.tnau.ac.in
1.3	Year of sanction	:	2004
1.4	Website address of ICAR-KVK and date of last update		www.kvk-kumari.org, 23.02.2018

2. Details of staff as on date

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	Existing Pay band	Grade Pay	Date of joining	Permanent / Temporary
2.1	Programme Coordinator Agrl. Extn./ Agronomy	Dr. K. Ramakrishnan	Agrl. Extension	15600-39100	8000	07.04.17	Permanent
2.2	Subject Matter Specialist - Agrl.Entomology / Plant Pathology	Dr. K. Kavitha	Plant Pathology	15600-39100	7000	31.08.16	Permanent
2.3	Subject Matter Specialist - Home Science	Dr. Cissie Theeblyn David	Food Science and Nutrition	15600-39100	7000	06.04.16	Permanent
2.4	Subject Matter Specialist -Agro Forestry/Plant Breeding/Seed Science & Technology	Dr. R. Latha	Plant Breeding and Genetics	15600-39100	7000	04.03.16	Permanent
2.5	Subject Matter Specialist - Agrl. Extn./ Agronomy	Dr. S. Santheepan	TA (Agronomy)	32000	-	08.03.18	Temporary
2.6	Subject Matter Specialist - Horticulture	Vacant					
2.7	Subject Matter Specialist - Agrl. Engineering	Vacant					
2.8	Programme Assistant	Tmt. K.R. Sudha	Agrl. Extension	54200	-	04.06.07	Permanent
2.9	Computer Programmer	Mr. V. Sivaraman	Computer Science	49600	-	08.12.08	Permanent
2.10	Farm Manager	Mr. R. Rajesh Kannan	Horticulture	54200	-	14.05.15	Permanent
2.11	Assistant	Mr. T. Arulmuthu	-	32200	-	30.07.14	Permanent
2.12	Jr. Assistant	Mrs. R. Sumathi	-	19500	-	22.01.18	Temporary
2.13	Driver 1	Th. G. Jayasekaran	-	50500	-	01.05.04	Permanent
2.14	Driver 2	Vacant					
2.15	Supporting staff 1	Tmt. R. Parvathi	-	17200	-	10.04.15	Permanent
2.16	Supporting staff 2	Tmt. R. Shanmugasundaram	-	17200	-	10.04.15	Permanent

3. Details of SAC meeting conducted during 2017-18 (Date : 30.11.2017)

Sl. No	Major recommendations	Status of action taken in brief	Tentative date of SAC meeting proposed 2018-19
3.1	Impact study on non-adoption on value addition in pineapple to be given to the needy people and the impact study is to be conducted. The training has to be conducted at the Thiruvattar block	Impact study and training will conducted during 2018-19	December 2018
3.2	Officials from NABARD and Lead bank have to be invited for skill development trainings so as to explain about the schemes available in the Bank	Bank officials will be invited for the skill development trainings during 2018-19	
3.3	Agricultural Department officials to be included in the Kumari farmers whatsApp group for sharing information on Agriculture and allied sectors	Department officials were included in the Kumari farmers whatsApp group	
3.4	More number of technical messages (@ 2 / Scientist / Month) is to be given to All India Radio, Nagercoil to reach the technologies widely to the farming community	Technical messages are being given to AIR by the KVK scientist periodically	
3.5	Include tapioca varieties released by KAU in the action plan 2018-19.	FLD on Demonstration of short duration tapioca variety Hraswa and OFT on Assessment of suitable Tapioca varieties (YTP1 and Sree Pavithra) for Kanyakumari District is proposed for the action plan for 2018-19	
3.6	Document the traditional varieties of fruit crops of Kanyakumari viz., Mango, Jack and Banana under PPV Act.	Documentation of traditional varieties of fruit crops of Kanyakumari viz., Mango, Jack and Banana is under process	
3.7	Trainings on cocoa based confectionary products to be included as part of training to impart technology to the farming community	Trainings will conducted during 2018-19	
3.8	Introduce shade loving fodder crops suitable for growing in coconut garden are to be introduced	FLD on Demonstration of Mixed fodder cultivation under Coconut garden is proposed for the action plan for 2018-19	

3.9	Hydroponics fodder and azolla cultivation need to be demonstrated to the farmers.	FLD on Demonstration of Green fodder Production by Hydroponic Technique is proposed for the action plan for 2018-19	
3.10	Strengthening the revolving fund by producing planting materials of horticultural crops, value added products, spawn etc.	Steps has been taken by scientists to Strengthen the revolving fund by producing TPS5 seeds, fodder, value added products, Mushroom spawn and *Pseudomonas fluorescens* etc.	
3.11	Update the data base related to farmers, progressive farmers and organic farmers	Updatation of data base related to farmers, progressive farmers and organic farmers is under process	
3.12	Display the government schemes in KVK through posters and spread the technology through messages	Posters will be prepared shortly and displayed in KVK notice board for the benefit of farmers	

4. Capacity Building of KVK Scientist

4.1. Plan of Human Resource Development of KVK personnel during 2018-19

S. No	New Areas of Training	Institution proposed to attend	Justification
4.1.1	Crop Improvement through modern plant breeding tools	Indian Agricultural Research Institute, New Delhi	Knowledge on new breeding tools enable me to evolve crop varieties with high productivity.
4.1.2	Marker assisted breeding for trait improvement	Directorate of Rice Research, Hyderabad	Marker assisted breeding helps to improve specific traits of crops.
4.1.3	Crop management and post harvest technology of tubers	CTCRI, Trivandrum	To update the knowledge on value addition
	Crop management and post harvest technology of plantation crops	CPCRI, Kasargoad	To update the knowledge on value addition
4.1.4	Integrated Pest and Disease Management	NCIPM, New Delhi	To update the knowledge
4.1.5	Advanced insect-pest management in agro-ecosystem	NIPHM, Hyderabad	To update the knowledge
4.1.6	Advanced Rice production technologies	DRR, Hyderabad	To update the knowledge
4.1.7	Documentation process	MANAGE, Hyderabad	KVK activities will be documented and reported with impact properly.

4.2. Cross-learning across KVKs during 2018-19

S. No	Name of the KVK proposed	Specific learning areas
4.2.1	**Within ring –** KVK, Virudhachalam, Dharmapuri, Salem, Tamil Nadu	Latest technologies in Farm mechanization, HI-tech production technology in Mango, IFS
4.2.2	**Within the zone** - KVK, Pattanamthitta, Kerala	Exposure Visit and study the value addition aspects of fruits and vegetables Exposure visit to study the coconut value added products
4.2.3	**Outside zone –** KVK, CTRI, Rajahmundry, Andhra Pradesh	Exposure visit to study the banana fiber extraction and by product utilization

5. Proposed cluster of KVKs (3 to 5 neighboring KVKs) to be formed for sharing knowledge/expertise, resources and activities during 2018-19

S.No.	Name of the KVKs included in the cluster	What do you intend to share with Cluster KVKs	What do you expect from Cluster KVKs
5.1	KVK, Madurai	Farm mechanization	Latest technologies in Farm mechanization, Value addition in fruits and vegetables
5.2	KVK, Namakkal	Animal Husbandry activities	Demonstration units
5.3	KVK, Thoothukudi	Fisheries activities	Integrated farming System
5.4	KVK, Pattanamthitta	Value addition in fruits and vegetables	Trainings and demonstrations

6. Operational areas details proposed during 2018-19

S. No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (ha/no.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
6.1	Banana, Ginger, Pulses, Tapioca	• Need remunerative pulse crop- red gram • High infestation of PSW in banana • Non adoption of bioagents for rhizome rot management in ginger	150 ha	Muthalakurichi, Appatuvillai, Kumarakoil, Thuckalay	OFT, FLD and Trainings and extension activities

		• Acid soil Reclamation in Nendran Banana, • Lack of improved tapioca varieties and short duration tapioca varieties • Value addition in jack			
6.2	Rice, Pulses, Tuberose, Groundnut	• Heavy infestation of weeds in direct sown rice fields • Heavy Infestation of pests and diseases during *Rabi* season • Non adoption of YMV Resistant varieties black gram varieties • Lack of improved groundnut variety for rainfed condition • High incidence of wilt in tuberose and non adoption ICM practices in Tuberose	250 ha	Veeranarayanam angalam, Thirupathisaram, Thovalai	OFT, FLD, FFS, Trainings and extension activities
6.3	Coconut and fodder	• Lack of suitable cereal and legume fodder to grow under Coconut garden	125 ha	Needakarai A	OFT, Trainings and extension activities
6.4	Rice, Vegetables, Fodder	• Micronutrient deficiency in soil • Non availability of fine rice variety • Hydroponic green fodder • Low yield in Bhendi & Non adoption of improved bhendi hybrids • Non Availability of Quality and nutritious green fodder	275 ha	Agastheeswaram, Ramapuram &Theroor, Ramanachithan pudur	OFT, FLD, Trainings and extension activities
6.5	Rubber, Tapioca, Pepper	• High incidence foot rot in pepper	85 ha	Thiruvattar	FLD, Trainings and extension activities
6.6	Rice, Banana, Tapioca	• Suitable Intercrop for banana • Suitable breed for backyard poultry • Nutritional imbalance • Value addition in banana and tapioca	175 ha	Kurunthencode	OFT, FLD, Trainings and extension activities

7. Technology Assessment during 2018-19

S. No.	Crop/ enterprise	Prioritized problem	Title of intervention	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the intervention (Rs.)	Parameters to be studied	Team members
7.1	Rice	Zinc deficiency Yield decline due to zinc deficiency	Assessment of the performance of zinc nutrition in rice for Kanyakumari District	TO1: Farmers practice-No application of zinc	-	-	-	-	**5**	**1900**	• Plant height (cm) • No. of tillers/hill • Zn deficiency scoring • No. grains/panicle • Grain Yield (q/ha) • BCR	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
				TO2: Soil application of $ZnSO_4$ @ 25 kg/ha	TNAU, CPG 2012	$ZnSO_4$	3 kg	60				
				TO3: Seedling dipping with ZSB @ 10g/lit + Soil application of ZSB @ 10 kg/ha	CRIDA, 2012	Zinc Solubilizing Bacteria	2 Kg	50				
						Field board sticker	1 No.	100				
						Total		**380**				
7.2	Black-gram	Low productivity (4q /ha) Lack of ideal variety for Kanyakumari district	Assessment of Blackgram varieties under Rice Fallow condition	TO1: T 9 Farmers practice VBN5/T9	-	-	-	-	**5**	**8100**	• No. of Branches / Plant • No. of Pods / Plant • No. of Seeds / Pod • Grain Yield (q/ha) • Net Return • BCR	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan
				TO2: Blackgram VBN (BG) 8	TNAU, (2012)	Seeds	2.5 kg	300				
						Pulse wonder	700 g	170				
						P. fluorescens	330 g	40				
				TO3: Blackgram KKM 1	TNAU (2017)	Seeds	2.5 kg	300				
						Pulse wonder	700 g	170				
						P. fluorescens	330 g	40				
				TO4 : Blackgram ADT6	TNAU (2017)	Seeds	2.5 kg	300				
						Pulse wonder	700 g	170				
						P. fluorescens	330 g	40				
						Field Sticker	1 No.	100				
						Total		**1620**				

7.3	Redgram	Farmers need high remunerative pulse crops	Assessment of suitable Redgram varieties for summer season with supplementary irrigation practice-	TO1: Farmers Blackgram-VBN5/T9	-	-	-	-	**5**	**8100**	• Number of pods/plant • Yield (q/ha) • BCR	Dr. R. Latha Dr. S.Santheepan Dr. K. Ramakrishnan
				TO2: CO(RG) 7	TNAU (2005)	Seeds	2.0 kg	400				
						Pulse wonder	1.0 kg	250				
						P. fluorescens	500 g	60				
						Rhizobium	500 g	50				
				TO3: VBN(RG) 3	TNAU (2007)	Seeds	2.0 kg	400				
						Pulse wonder	1.0 kg	250				
						P. fluorescens	500 g	60				
						Rhizobium	500 g	50				
						Field Sticker	1 No.	100				
						Total		**1620**				
7.4	Groundnut	Low productivity and lack of high yielding varieties.	Assessment of Groundnut varieties suitable for rainfed condition	TO1: Farmers Practice – Local variety	-	-	-	-	**5**	**18400**	• No. of pods/bunch • Yield (t/ha) • BCR	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan
				TO2: CO (GN) 7	TNAU, 2013	Seed	16 kg	1440				
						Gypsum	50 kg	150				
						TNAU Groundnut Rich	1 kg	200				
				TO3: VRI (GN) 8	TNAU, 2016	Seed	16 kg	1440				
						Gypsum	50 kg	150				
						TNAU Groundnut Rich	1 kg	200				
						Field Sticker	1 No.	100				
						Total		**3680**				

7.5	Banana	High infestation of PSW in banana, High Plant Protection input cost Residue problems in fruits & vegetables Low productivity (42 t/ha against the potential yield of 55 t/ha)	Assessment of bio formulations for Pseudo stem weevil management in banana	TO1: Farmers' Practice – Pseudo stem injection with Monocrotophos	-	-	-	-	**5**	**24000**	• Weevil • incidence (%) • Bunch weight (kg) • Yield (t/ha) • BCR	Dr. K.Kavitha Dr. R. Latha Dr. K. Ramakrishnan
				TO2: Foliar spray of 'Nanma' 5% & Pseudostem injection with Menma @ 5 ml	CTCRI , 2014	CTCRI-Nanma	2.0 lit	600				
						CTCRI-Menma	2.0 lit	600				
						Pseudostem injector	1 No.	500				
				TO3: Leaf Axil Filling with Entomo pathogenic nematode- *Heterorhabditis* @ 4 cadavers/ plant at 5th ,6th and 7th MAP	KAU, 2017	EPN - Heterorhabditis	2000 cadavers	3000				
						Field Board sticker	1 No	100				
						Total		**4800**				
7.6	Ginger	Low yield – 8 t/ha against the potential yield of 12 t/ha Sudden mortality of plants Occurrence of soft rot causes 26% yield reduction	Assessment of Soft rot disease management in Ginger	TO1: Farmers' Practice - Repeated spray of 0.1 % carbendazim	-	-	-	-	**5**	**10,500**	• Soft rot incidence (%) • Yield (t/ha) • BCR	Dr. K.Kavitha Dr. S.Santheepan Dr. K. Ramakrishnan
				TO2: Rhizome treatment with *P. fluorescens* @ 20g/kg rhizome + soil application @ 10kg/ha + pre monsoon drenching with Metalaxyl 0.1%.	TNAU, 2013	*P. fluorescens*	5 kg	500				
						Metalaxyl	500 g	1000				
				TO3: Rhizome treatment with	IISR, 2015	*Bacillus amyloliquefaciens*	5 kg	500				

				Bacillus amyloliquefaciens @ 20g/kg rhizome + soil application @ 5kg/ha		Field Board sticker	1 No	100				
						Total		**2100**				
7.7	Bhendi	Poor germination of seeds Flowers and buds drop before pods set Holes in pods & Deformed pods. Low yield	Assessment of suitable Bhendi hybrids for Kanyakumari District	TO1 - Farmers' Practice –Local varieties	-	-	-		**5**	**10,000**	• Vein clearing incidence (%) • Borer infestation (%) • Yield (t/ha) • BCR	Dr. K.Kavitha Dr. R. Latha Dr. K. Ramakrishnan
				TO2 - TNAU Bhendi Hybrid Co 4	TNAU, 2016	TNAU Bhendi Hybrid Co 4	250 g	750				
						IIHR vegetable special	1 Kg	200				
				TO3 - Arka Nikita	IIHR, 2017	Arka Nikita	250 g	750				
						IIHR vegetable special	1 Kg	200				
						Field Board sticker	1 No	100				
						Total		**2000**				
7.8	Tapioca	Low yield Low Starch Content Incidence of Cassava Mosaic disease Incidence of Cercospora Leaf spot Lack of ideal variety for Kanyakumari district	Assessment of suitable Tapioca varieties for Kanyakumari District	TO1: Farmers practice (Local Variety)	-	-	-	-	**5**	**17,500**	• Number of tubers/clump Weight of tubers/clump • Yield (t/ha) • BCR	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
				TO2: YTP1	TNAU, (2014)	*Setts*-YTP1	1700	1700				
				TO3: Sree Pavithra	CTCRI (2017)	*Settss*- Sree Pavithra	1700	1700				
						Field Board sticker	1 No.	100				
						Total		**3500**				

7.9	Backyard poultry	Higher production cost Low body weight gain Low egg production	Assessment of suitable poultry bird for Backyard rearing	Farmers' Practice –Local	-	-	-	-	**3**	**18,750**	• Body weight gain (g) • Egg production (Nos), • Feed intake (g) • FCR, • Livability (%), • BCR	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
				TO1: TANUVAS Aseel	TNAUVAS, 2017	Aseel Chicks	30 Nos	1500				
						Chick feeds	15 kg	450				
				TO2:Srinidhi	DPR, Hyd 2015	Srinidhi Chicks	30 Nos	1500				
				TO3: Grama priya-	DPR, Hyd 2014	Chick feeds	15kg	450				
						Grama priya-Chicks	30 Nos	1500				
						Chick feeds	15kg	450				
						Vaccines and medicines	90 Nos	300				
						Field board sticker	1 No.	100				
						Total	**6250**					
7.10	Mango	Less utilization of mango and lack of ready to eat foods	Assessment of Mango bar	TO1 - Mango bar (CSC & RI 2013)	CSC & RI 2013	Mango & jaggery)	5 kg	300	**5**	**6,000**	• Sensory attributes (Colour, flavour, texture, taste and over all acceptability**)** • Shelf life study • BCR	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
						Packaging & labeling charges	-	125				
				TO2 - Protein enriched Mango bar (CSC & RI 2013)	CSC & RI 2013	Mango	5 kg	250				
						Mixed fruit pulp	5 kg	300				
						Packaging & labeling charges	-	125				
						Field board sticker	1 No.	100				
						Total		**1200**				

8. Technology Refinement during 2018-19: Nil

9. Frontline Demonstrations during 2018-19

S. No.	Category	Crop/ enterprise	Prioritized problem	Technology to be demonstrated	Specify Hybrid or Variety	Name of the Hybrid or Variety	Source of Technology	Name of critical input	Qty per Demo	Cost per Demo	No. of Demo	Total cost for the Demo (Rs.)	Parameters to be studied	Team members
9.1	**Cereals**													
9.1.1	Cereals	Rice	• Non availability of fine rice variety • Need high yielding rice varieties	Demonstration of rice variety MGR 100(CO-52) in Kanyakumari District	Variety	MGR 100 (CO-52)	TNAU, 2017	MGR 100 (CO-52) seeds	20 kg	480	**10**	**17300**	• Plant height (cm) • No. of tillers/hill • No. grains/panicle • Yield (q/ha) • BCR	Dr. R. Latha Dr. S.Santheepan Dr. K. Ramakrishnan
								Pritilachlor	0.75 lit	500				
								$ZnSO_4$	10 kg	400				
								T. japonicum	6 cc	150				
								P. fluorescens	1.0 kg	100				
								Field board sticker	1 No.	100				
								Total		**1730**				
9.1.2	Cereals	Rice	• Heavy infestation of weeds in rice fields • Labour shortage • Yield reduction (20-50%)	Demonstration of IWM practices in Direct sown rice	Variety	TPS5	TNAU, 2012	TPS 5 seeds	20 kg	480	**10**	**19800**	• Plant height (cm) • No. of tillers/hill • No. of grains/panicle • Yield (q/ha) • BCR	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
								Bispyribac Sodium	200 ml	1000				
								$ZnSO_4$	10 kg	400				
								Field board sticker	1 No.	100				
								Total		**1980**				
9.1.3	Cereals	Rice	• Low yield (45q t/ha against potential yield of 70 q /ha) • Occurrence of	Demonstration of Ecofriendly pest and disease management practices in organic Rice	Variety	Traditional variety	TNAU, 2012	*P. fluorescens*	2.5 kg	250	**10**	**16500**	• Blast Incidence (%) • Stem borer incidence (%) • Yield (q/ha) • BCR	Dr. K.Kavitha Dr. R. Latha Dr. K. Ramakrishnan
								T. japonicum	6 cc	150				
								Pheromone trap + lure (stem borer)	5 Nos	250				

			pests (leaf folder and stem borer) and diseases during Rabi season					*T. chilionis*	6 cc	150				
								Azadirachtin	1.0 lit	750				
								Field board sticker	1 No.	100				
								Total		**1650**				
9.2	**Millets**													
9.3	**Oilseeds**													
9.4	**Pulses**													
9.5	**Commercial crops**													
9.6	**Horticultural crops**													
9.6.1		Banana	• Acid soil • Nutritional disorders • Low yield (42 % of potential yield)	Integrated Nutrient Management for Nendran Banana in acid soil	variety	Nendran	KAU, 2011	Dolomite	500 kg	4000	**10**	**44000**	• No. of hands / bunch • No. of fruits / bunch • Bunch Weight (kg) • Yield (q/ha) • BCR	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan
								IIHR Banana Special	3 kg	300				
								Field Board Sticker	1	100				
								Total		**4400**				
9.6.2		Tapioca	• Long duration (300 days) • Low yield (300q/ha) • Susceptible to Cassava mosaic virus (100%)	Demonstration of short duration tapioca variety Hraswa	Variety	Hraswa	KAU 2007	Setts of var.Hraswa	1234 setts	2400	**10**	**25000**	• No. of tubers/plant • Tuber weight(kg) • Incidence of Cassava Mosaic Virus(%) • Whitefly population per leaf • Yield (q/ha) • BCR	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
								Field board sticker	1 No.	100				
								Total		**2500**				
9.6.3		Amaranthus	• Low foliage yield • Lack of knowledge on Potential varieties • Intercrop in between banana	Demonstration on PLR-1 Amaranthus in Banana based cropping system	Variety	PLR-1	TNAU 2014	Seeds of var.PLR 1	1kg	625	**10**	**8250**	• No. of days to first harvest • Herbage yield q/ha • BCR	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
								P.florescence	1kg	100				
								Field board sticker	1 No	100				
								Total		**825**				

9.6.4		Tuberose	• Low yield. • Sudden plant mortality • Occurrence of 21 % tuber rot & wilt	Demonstration of tuber rot and wilt management in tuberose	Variety	local	IIHR 2015	*Paecillomyces*	4 Kg	700	**10**	**16000**	• Per cent Disease Index • Gall index • Yield (t/ha) • BCR	Dr. K.Kavitha Dr. R. Latha Dr. K. Ramakrishnan
								Trichoderma	4 kg	400				
								Pseudomonas	4 kg	400				
								Field board sticker	1 No	100				
								Total		**1600**				
9.6.5		Pepper	• Low yield - 2 t/ha against the potential yield of 3 t/ha • Occurrence of foot rot causes 33% yield reduction	Demonstration of foot rot disease management in pepper	Variety	Panniyur	IISR, 2015	*T. harzianum*	5 kg	500	**10**	**24000**	• Per cent Disease Index • Yield (t/ha) • BCR	Dr. K.Kavitha Dr. R. Latha Dr. K. Ramakrishnan
								Ridomil MZ	500g	1000				
								IISR power mix BP	4 kg	800				
								Field board sticker	1 No	100				
								Total		**2400**				
9.7	**Livestock**													
9.8	**Fisheries**													
9.9	**Others**													
9.9.1		Fodder sorghum	• Non availability of Quality and nutritious green fodder for cattle rearing	Demonstration of Multicut fodder sorghum CSV33MF	Variety	CSV33MF	IIMR 2016	Seed (CSV 33MF)	2 kg	800	**10**	**14000**	• Green fodder yield(q/ha/year) • BCR	Dr. R. Latha Dr. S.Santheepan Dr. K. Ramakrishnan
								Fish meal trap	5 Nos	500				
								Field board sticker	1 No	100				
								Total		**1400**				
9.9.2		Fodder	• Unpredictable weather patterns damaging pasture lands • Lack of quality fodder to the milch animals • Lack of awareness on Hydroponic green fodder	Demonstration of Green fodder Production through Hydroponic Technique	Variety	local	TNAU VAS 2014	Maize	25 kg	1000	**10**	**41800**	• Green fodder Yield (q/ha) • Nutrient content • Milk yield • BCR	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
								Horse gram/cowpea	7 Kg	280				
								Hydrophonics Tray	20Nos	2800				
								Field board sticker	1 No	100				
								Total		**4180**				

9.9.3		Fodder-Guinea grass + Desmanthus	• Limited availability of good fodder varieties/hybrids • Need suitable varieties to grow under Coconut	Demonstration of Mixed fodder cultivation under Coconut garden	Variety	Co (GG) 3	TNAU 2012	Guinea grass (Co (GG) 3)	700 Nos.	700	**10**	**13000**	• Plant height (cm) • No. of tillers/hill • Green fodder Yield (q/ha) • BCR	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
								Desmanthus seed	500 g	500				
								Field board sticker	1 No	100				
								Total		**1300**				
9.9.4		Nutrition Garden	• Lack of knowledge on the nutritive value of vegetables and greens • Intake of vegetables with toxic residues of pesticides which are hazardous to health • Increased cost of vegetables	Demonstration of Homestead Nutrition Garden	Varity	Local	TNAU, 2009	Seeds kit (Tomato, brinjal, bhendi, amaranthus, chillies, bitter gourds, curry leaves, snakegourd and bottle gourd	1 No (2 pkts each)	360	**10**	**6100**	• Yield • BC ratio • Additional Income	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
								Seedlings						
								Papaya	5 nos.	50				
								Moringa	5 nos	50				
								Chekkurumanis	5 nos	50				
								Field board sticker	1 No.	100				
								Total		**610**				

9.9.5 **Special Programme – Value Added Products from Jack Fruit - (EDP mode)**

Team members: Dr. Cissie Theeblyn David
Dr. K. Ramakrishnan

Thematic area

- Principle of Processing and preservation
- Equipment and tools used in processing small scale Industry
- Pre packaging and packaging methods
- Sensory evaluation of processed fruit products
- Preparation of Jack fruit squash and Ready to serve beverage
- Preparation of Jack fruit candy
- Preparation of Jack fruit preserve and Jelly
- Packaging and labeling
- FSSAI licensing and export potentiality
- Marketing opportunity for Jack fruit value added products

S. No.	Particulars	Amount
1	Trainings cum demonstrations @20x5x150	15,000
2	Booklet Preparation	5000
3	Exposure visit to processing unit	10000
4	Training materials	5000
5	Inputs	5000
	Total	**40000**

10.Training for Farmers/ Farm Women during 2018-19

S. No.	Thematic area	Crop / Enterprise	Major problem	Linked field intervention (Assessment/ Refinement/ FLD)	Training Course Title**	No. of Courses	Expected No. of participants	Names of the team members involved
10.1	**Crop Production**							
		Rice	Non availability of fine rice variety Need high yielding rice varieties	FLD	ICM in Rice variety MGR 100 (CO-52)	3	90	Dr. R. Latha Dr. S.Santheepan Dr. K. Ramakrishnan
		Rice	Zinc deficiency Yield decline due to zinc deficiency	OFT	Nutrient Deficiency symptoms in rice	1	30	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
		Rice	Zinc deficiency Yield decline due to zinc deficiency	OFT	Nutrient management for rice	1	30	Dr.S. Santheepan Dr. R. Latha Dr. K. Ramakrishnan
		Rice	Heavy infestation of weeds in rice fields, Labour shortage, Yield reduction (20-50%)	FLD	IWM practices in rice	3	90	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
		Rice	Low yield Occurrence of pests (leaf folder and stem borer) and diseases (sheath rot and bacterial blight) during Rabi season	FLD	ICM practices in rice	1	30	Dr. K. Kavitha Dr. S.Santheepan Dr. K. Ramakrishnan
		Black gram	Low productivity (4q /ha) Lack of ideal variety for Kanyakumari district under rice fallow condition	OFT	ICM techniques for enhanced pulse production under rice fallow condition	2	60	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan
		Redgram	Low productivity of Blackgram in rice fallow Need remunerative pulse crop Lack of ideal variety for Kanyakumari district	OFT	ICM techniques for enhanced production in redgram	2	60	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan

		Groundnut	Low productivity (1300 kg/ha against the potential yield of 2100 kg/ha) Lack of ideal variety for Kanyakumari district	OFT	ICM in Groundnut for enhanced production	3	60	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan
		Forage Crop	Natural green fodder is not sufficient for cattle rearing. Farmers are interested to grow the cereal fodder grasses Sole fodder cultivation is not preferred by the farmers	FLD	Cultivation techniques of Fodder sorghum	3	60	Dr. R. Latha Dr. S.Santheepan Dr. K. Ramakrishnan
		Fodder	Hay and grain prices reaching record high Unpredictable weather patterns damaging pasture lands Lack of quality fodder to the milch animals Lack of awareness on Hydroponic green fodder.	FLD	Fodder production by Hydroponic technology	2	60	Dr. Santheepan Dr. R. Latha Dr. K. Ramakrishnan
		Fodder	Limited availability of good fodder varieties/hybrids Farmers are interested to grow mixed fodder Need suitable varieties to grow under Coconut	FLD	Mixed fodder cultivation under Coconut garden	2	60	Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
10.2	**Horticulture Production**							
		Banana	Acid soil Nutritional disorders Low yield (42 % of potential yield)	FLD	Acid soil management for banana cultivation	1	30	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan
		Banana	Acid soil Nutritional disorders Low yield (42 % of potential yield)	FLD	ICM in Nendran Banana	1	30	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan

		Banana	High infestation of PSW in banana, High Plant Protection input cost Residue problems in fruits & vegetables Low productivity (42 t/ha against the potential yield of 55 t/ha)	OFT	ICM in Banana	1	30	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Ginger	Low yield – 8 t/ha against the potential yield of 12 t/ha Sudden mortality of plants Occurrence of soft rot causes 26% yield reduction	OFT	ICM in Ginger	1	30	Dr. K. Kavitha Dr.S. Santheepan Dr. K. Ramakrishnan
		Tapioca	Low yield Low Starch Content Incidence of Cassava Mosaic disease High incidence of mealy bug	OFT	High yielding varieties of tapioca	2	50	Dr.S. Santheepan Dr. K. Kavitha Dr. K. Ramakrishnan
		Bhendi	Poor germination of seeds Flowers and buds drop before pods set Holes in pods & Deformed pods. Low yield	OFT	ICM in bhendi	1	30	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Tube rose	Low yield. Sudden plant mortality Occurrence of 21 % tuber rot &wilt	FLD	ICM practices in Tube rose	2	60	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Pepper	Low yield - 2 t/ha against the potential yield of 3 t/ha Occurrence of foot rot causes 33% yield reduction	FLD	ICM practices in Pepper	2	60	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Tapioca	Demonstration of short duration tapioca variety Hraswa	FLD	Short duration varieties of tapioca	2	60	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
		Tapioca	Demonstration of short duration tapioca variety Hraswa	FLD	Value addition in short duration variety tapioca	1	30	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
		Amaranthus	Demonstration on PLR-1 Amaranthus in Banana based cropping system	FLD	Organic cultivation of Green	2	60	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan

		Amaranthus	Demonstration on PLR-1 Amaranthus in Banana based cropping system	FLD	Nutritional significance of Green leafy vegetables	1	30	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
		Nutrition Garden	Demonstration on Nutrition Garden	FLD	Importance of nutrition garden	1	30	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
		Nutrition Garden	Demonstration on Nutrition Garden	FLD	Nutrition garden for better nutritional security	2	60	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
10.3	**Livestock Production**							
		Backyard poultry	Higher production cost Low body weight gain Low egg production	OFT	Backyard poultry rearing	2	60	Dr. S.Santheepan Dr. K. Kavitha Dr. K. Ramakrishnan
10.4	**Home Science**							
10.5	**Plant Protection**							
		Rice	Low yield Occurrence of pests (leaf folder and stem borer) and diseases (sheath rot and bacterial blight) during Rabi season	FLD	IPDM in rice	2	60	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Tube rose	Low yield. Sudden plant mortality Occurrence of 21 % tuber rot & wilt	FLD	IDM practices in Tube rose	1	30	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Pepper	Low yield - 2 t/ha against the potential yield of 3 t/ha Occurrence of foot rot causes 33% yield reduction	FLD	IDM practices in Pepper	1	30	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Bhendi	Poor germination of seeds Flowers and buds drop before pods set Holes in pods & Deformed pods. Low yield	OFT	Integrated Pest & disease Management in bhendi	1	30	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Banana	High infestation of PSW in banana, High plant protection input cost Residue problems in fruits & vegetables Low productivity	OFT	Integrated Pest Management in banana	1	30	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan

		Ginger	Low yield – 8 t/ha against the potential yield of 12 t/ha Sudden mortality of plants Occurrence of soft rot causes 26% yield reduction	OFT	Integrated disease management in Ginger	1	30	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
		Banana	Acid soil Nutritional disorders Low yield (42 % of potential yield)	FLD	IPDM in Nendran banana	1	30	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan
10.6	**Production of Inputs at Site**							
10.7	**Soil Health and Fertility**							
10.8	**PHT and value addition**							
		Tapioca	Lack of suitable variety for extruded product development	OFT	Value addition in tapioca	2	60	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
		Jack fruit	Lack of awareness on the suitability of specific jack varieties for processing	OFT	Processed products from Jack	2	60	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
		Banana	Lack of suitable varieties for novel product pastry product development	OFT	Novelty products from banana	2	60	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
10.9	**Capacity Building Group Dynamics**							
10.10	**Farm Mechanization**							
10.11	**Fisheries Production Technologies**							
10.12	**Mushroom production**							
		Mushroom	Non consumption of protein rich food Poor shelf life		Milky mushroom production	1	30	Dr. K. Kavitha Dr. S.Santheepan Dr. K. Ramakrishnan
10.13	**Agro forestry**							
10.14	**Bee Keeping**							
10.15	**Sericulture**							
					Total	**60**	**1640**	

* Title of intervention/title of technology, ** Training title should specify the major technology/skill to be transferred.

11. Training for Rural Youth during 2018-19

S.No.	Thematic area	Crop / Enterprise	Major problem	Linked field intervention (Assessment/ Refinement/FLD)	Training Course Title**	No. of Courses	Expected No. of participants	Names of the team members involved
11.1	**Crop Production**							
		Fodder	High Hay and grain prices Unpredictable weather patterns damaging pasture lands Lack of quality fodder to the milch animals Lack of awareness on Hydroponic green fodder	FLD	Hydroponic green fodder production technology	1	30	Dr. S. Santheepan Dr. R. Latha Dr. K. Ramakrishnan
11.2	**Horticulture Production**							
11.3	**Livestock Production**							
11.4	**Home Science**							
11.5	**Plant Protection**							
		Pesticides handling	Indiscriminate use of pesticides Non adoption of safe handling methods	General	Safe handling of pesticides	1	30	Dr. K. Kavitha Dr. R.Latha Dr. K. Ramakrishnan
11.6	**Production of Inputs at Site**							
11.7	**Soil Health and Fertility**							
		Biofertilizers	Limited availability of Biofertilizers	General	Production of Biofertilizers	1	30	Dr. R. Latha Dr. K.Kavitha Dr. K. Ramakrishnan

11.8	**PHT and value addition**							
11.9	**Capacity Building Group Dynamics**							
11.10	**Farm Mechanization**							
			Labour shortage, High labour wages Lack of awareness	General	Mechanization in Agriculture	1	30	Dr. S.Santheepan Dr. R.Latha Dr. K. Ramakrishnan
11.11	**Fisheries Production Technologies**							
11.12	**Mushroom production**							
11.13	**Agro forestry**							
11.14	**Bee Keeping**							
11.15	**Sericulture**							
	Others, pl. specify							
					Total	**4**	**120**	

* Title of intervention/title of technology, ** Training title should specify the major technology/skill to be transferred.

12 .Trainings for Extension Personnel during 2018-19

S.No.	Thematic area	Training Course Title**	No. of Courses	Expected No. of participants	Names of the team members involved
12.1	**Crop Production**	Organic farming	1	50	Dr. Santheepan Dr. K. Kavitha Dr. R. Latha Dr. K. Ramakrishnan
		Improved production techniques in redgram	1	50	Dr. R. Latha Dr. K.Kavitha Dr. S.Santheepan Dr. K. Ramakrishnan
12.2	**Home Science**				
12.3	**Capacity Building and Group Dynamics**				
12.4	**Horticulture**				
12.5	**Livestock Production & Management**				
12.6	**Plant Protection**	Newer generation pesticides in plant health management	1	50	Dr. K. Kavitha Dr. R. Latha Dr. S.Santheepan Dr. K. Ramakrishnan
12.7	**Farm Mechanization**				
12.8	**PHT and value addition**				
12.9	**Production of Inputs at Site**				
12.10	**Sericulture**				
12.11	**Fisheries**				
	Total		**3**	**150**	

* Title of intervention/title of technology, ** Training title should specify the major technology/skill to be transferred.

13. Vocational trainings during 2018-19

Sl. No.	Thematic area and the Crop/Enterprise	Training title*	No. of programmes and Duration (days)	Type of Clientele (SHGs, NYKs, School students, Women, Youth etc.)	Expected No. of participants	Sponsoring agency if any	Names of the team members involved
13.1	**Crop Production**	Integrated farming system	1 (5days)	Youth & women	20		Dr. S.Santheepan Dr. R. Latha Dr. K. Ramakrishnan
13.2	**Home Science**						
13.3	**Capacity Building and Group Dynamics**						
13.4	**Horticulture**						
13.5	**Livestock Production & Management**						
13.6	**Plant Protection**	Biocontrol agents & Biopesticides production technology	1 (5 days)	Youth & women	20	-	Dr. K. Kavitha Dr. R. Latha Dr. K. Ramakrishnan
13.7	**Farm Mechanization**						
13.8	**Post harvest technology and value addition**						
	Banana	Novelty products from banana fibre	1 (5days)	Youth & women	20		Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
	Coconut	Value added products from underutilized fruits	1 (5days)	Youth & women	20		Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
13.9	**Production of Inputs at Site**	Vermicompost Production techniques	1 (5days)	Youth & women	20		Dr. R. Latha Dr. S.Santheepan Dr. K. Ramakrishnan
13.10	**Sericulture**						
13.11	**Fisheries**						
	Total		**5**		**100**		

* Training title should specify the major technology/skill to be transferred.

14. Sponsored trainings during 2018-19

Sl. No.	Thematic area and the Crop/ Enterprise	Training title*	No. of programmes and Duration (days)	Type of Clientele (SHGs, NYKs, School students, Women, Youth etc.)	Expected No. of participants	Sponsoring agency	Names of the team members involved
14.1	**Crop Production**						
14.2	**Home Science**						
14.3	**Capacity Building and Group Dynamics**						
14.4	**Horticulture**						
14.5	**Livestock Production & Management**						
14.6	**Plant Protection**						
14.7	**Farm Mechanization**						
14.8	**PHT and value addition**						
14.8.1	Novelty products from Banana fibre		3 days	Youth	14	ICAR-ARYA	Dr. Cissie Theeblyn David Dr. K. Ramakrishnan
14.8.2	Development of instant foods- banana		2 days	Youth	13		
14.8.3	Banana based pastry products		2 days	Youth	12		
14.8.4	Instant foods from banana stem and flower		2 days	Youth	11		
14.8.5	Desiccated products from coconut		2 days	Youth	13		
14.8.6	coconut based products-coconut jelly & RTS		2 days	Youth	12		
14.8.7	Novel bakery products from coconut		2 days	Youth	11		
14.9	**Production of Inputs at Site**						
14.10	**Sericulture**						
14.11	**Fisheries**						

* Programme title should specify the major technologies/skills to be transferred /refreshed.

15. Extension programmes during 2018-19

Sl. No.	Extension programme*	No. of programmes or activities	Expected No. of participants	Names of the team members involved
15.1	Advisory Services	120	150	All SMS, Programme Coordinator
15.2	Diagnostic visits	25	45	”
15.3	Field Day	12	350	”
15.4	Group discussions	4	80	”
15.5	Kisan Ghosthi	1	100	”
15.6	Film Show	30	125	”
15.7	Self -help groups	3	60	”
15.8	Kisan Mela	2	100	”
15.9	Exhibition	1	75	”
15.10	Scientists' visit to farmers field	18	45	”
15.11	Plant/Soil health/Animal health camps	2	150	”
15.12	Farm Science Club	2	30	”
15.13	Ex-trainees Sammelan	2	22	”
15.14	Farmers' seminar/workshop	--	--	”
15.15	Method Demonstrations	45	740	”
15.16	Celebration of important days	--	--	”
15.17	Special day celebration	-	-	”
15.18	Exposure visits	2	40	”
15.19	Technology week	--	--	”
15.20	FFS	1	25	”
15.21	Farm innovators meet	--	--	”
15.22	Awareness programs	2	100	”
	Others, pl. specify	--	--	”

16. Activities proposed as Knowledge and Resource Centre during 2018-19

16.1 Technological knowledge

Sl.No.	Category	Details of technologies	Area (ha)/ Number	Names of the team members involved
16.1.1	Technology Park/ Crop cafeteria	Model fodder unit	0.05 ha	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
		Crop Cafetaria	0.05 ha	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
16.1.2	Demonstration Units	Methods of planting and varieties of rice	0.6 ha	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
		Hi-density planting and varieties in mango(choice varieties Alphonso, Banganapalli and Himampasand)	0.4 ha	Mr. R. Rajesh Kannan Dr. S.Santheepan
		Hi-density planting in Sapota var.PKM-1	0.4 ha	Mr. R. Rajesh Kannan Dr. S.Santheepan
		IFS unit	0.05ha	Dr. S.Santheepan Mr. R. Rajeshkannan
		Mushroom spawn	200 Pkts	Dr. K. Kavitha
		Pseudomonas talc formulation	100 kg	Dr. K. Kavitha
16.1.3	Lab Analytical services	Soil, Water	210	Mrs. K.R. Sudha
16.1.4	Technology Week			

16.2 Technological products

Sl.No.	Category	Name of the Production Partner Agency, if any	Name of the product	Quantity (Qtl.)/ Number planned to be produced during 2018-19	Names of the team members involved
16.2.1	**Seeds**				
	Rice	-	TPS 5 variety	60 q	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
16.2.2	**Planting materials**				
	Cumbu-Napier (CO-5)	-	Slips	60,000 nos.	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
	Guinea grass-slips	-	Slips	4,000 nos.	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
16.2.3	**Bio-products**				
	Coconut tonic	-	Coconut tonic	5,000 Packets	Mr. R. Rajesh Kannan
	Mushroom spawn	-	Mushroom spawn	200 packets	Dr.K.Kavitha
	Pseudomonas		Pseudomonas formulation	100 kg	Dr.K.Kavitha
16.2.4	**Value added products**				
	Pine apple	-	Pineapple squash	50 bottles	Dr. Cissie Theeblyn David
	Papaya	-	Papaya squash	50 bottles	Dr. Cissie Theeblyn David
	Mango	-	Mango squash	50 bottles	Dr. Cissie Theeblyn David
	Banana	-	Banana based ready to use products	20 kg	Dr. Cissie Theeblyn David
	Tapioca	-	Instant traditional foods	20 kg	Dr. Cissie Theeblyn David

16.3 Technological Information

S.No.	Category	Technological capsules / Number	Names of the team members involved
16.3.1	Technology backstopping to line departments		
	Agriculture	6	Dr. R. Latha Dr. K. Kavitha Dr. S.Santheepan
	Horticulture	5	Dr. K. Kavitha Dr. R. Latha Dr. S.Santheepan
	Animal Husbandry	1	Dr. S.Santheepan Dr. K. Kavitha Dr. R. Latha
	Fisheries		
	Agricultural Engineering		
	Sericulture		
	Others, pl. specify	IFS – 1	Dr. S.Santheepan Mr. R.Rajeshkannan
		Value addition- 5	Dr. Cissie Theeblyn David Dr. S.Santheepan
16.3.2	Literature/publication	12	Programme Coordinator and All SMS
16.3.4	Electronic Media	2	Dr. K.Ramakrishnanan Dr. K. Kavitha Dr. R. Latha Dr. Cissie Theeblyn David Dr. S.Santheepan Mrs. K.R.Sudha, Mr. R. Rajeskannan
16.3.5	Kisan Mobile Advisory Services	50	Programme Coordinator, All SMS and Mr. V. Sivaraman
16.3.6	Information on centre/state sector schemes and service providers in the district.	Data to be collected from different agencies. Dec' 2017	Dr. K.Ramakrishnanan Dr. K. Kavitha Dr. R. Latha Dr. Cissie Theeblyn David Dr. S.Santheepan Mrs. K.R.Sudha, Mr. R. Rajeskannan

17. Additional Activities Planned during 2018-19: Nil

18. Revolving Fund

18.1 Financial status

Opening balance as on 01.04.2017 (Rs.in Lakh)	Receipts during 2017-18 (Rs.in Lakh) up to 31.3.2018	Expenditure incurred during 2017-18 (Rs.in Lakh) up to 31.3.2018	Closing balance as on 31.03.2018 (Rs.in Lakh)
619105	214574	135843	697836

18.2 Plan of activities under Revolving Fund (2018-19)

S.No.	Proposed activities	Expected output	Anticipated income (Rs.)	Names of the team members involved
18.2.1	Rice (TPS – 5) Seed production	60q	144000.00	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
18.2.2	Fodder Bajra-Napier-setts	60,000 nos.	30000.00	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
18.2.3	Fodder Guineagrass-Root slips	4000 nos.	2500.00	Mr. R. Rajesh Kannan Dr. R.Latha Dr. S.Santheepan
18.2.4	Paid training on Mushroom cultivation	50 participants	15000.00	Dr.K.Kavitha
18.2.5	Mushroom Spawn production	200 packets	10000.00	Dr.K.Kavitha
18.2.6	*Pseudomonas* Talc formulation	100 kg	10000.00	Dr.K.Kavitha
18.2.7	Pineapple squash	50 bottles	7500.00	Dr. Cissie Theeblyn David
18.2.8	Papaya squash	50 bottles	7500.00	Dr. Cissie Theeblyn David
18.2.9	Mango squash	50 bottles	7500.00	Dr. Cissie Theeblyn David
18.2.10	Banana based ready to use products	20 kg	5000.00	Dr. Cissie Theeblyn David
18.2.11	Instant traditional foods	20 kg	5000.00	Dr. Cissie Theeblyn David
18.2.12	Coconut tonic	250 lit.	12500	Mr. R. Rajesh Kannan

19. Activities of soil, water and plant testing laboratory during 2018-19

Sl.No.	Type	No.of samples to be analyzed	Names of the team members involved
19.1	Soil	200	Mrs. K. R. Sudha
19.2	Water	100	Mrs. K. R. Sudha
19.3	Others		

20. E-linkage during 2018-19

S. No.	Nature of activities	Likely period of completion (please set the time frame)	Remarks if any
20.1	Title of the technology module to be prepared	-	
20.2	Creation and maintenance of relevant database system for KVK	Monthly updatation	Farmers database
20.3	Any other (Please specify)		

21. Activities planned under Rainwater Harvesting Scheme (only to those KVKs which are already having scheme under Rain Water Harvesting)

S. No	Activities planned	Remarks if any
21.1	--Nil --	

22. Innovative Farmer's Meet

Sl.No.	Particulars	Details
22.1	Are you planning for conducing Farm Innovators meet in your district?	**No**
22.2	If Yes likely month of the meet	
22.3	Brief action plan in this regard	

23. Farmer's Field School planned

S. No	Thematic area	Title of the FFS	Budget proposed in Rs.
23.1	Seasons and varieties	Integrated Crop Management in Tuberose	Rs. 30000/-
23.2	Propagation and Selection of Planting material		
23.3	Field preparation, spacing and planting		

23.4	Integrated nutrient management		
23.5	Use of growth regulators in flower quality improvement		
23.6	Integrated Pest & Nematode management		
23.7	Integrated Disease management		
23.8	Marketing		
23.9	Value addition		
23.10	Exposure visit to Floriculture Research station, Thovalai		

FARMERS FIELD SCHOOL ON 'INTEGRATED CROP MANAGEMENT IN TUBEROSE'

1.	Season	:	Period: April 2018 to March 2019
2.	Periodicity of the session	:	One day/session
3.	Name of the village	:	Thovalai block
4.	Number of participants	:	25
5.	Name of the Facilitators	:	Dr. K.Kavitha, SMS (Plant Pathology)
			1. Dr. R.Latha, SMS (PBG) 2. Dr..S.Santheepan TA (Agronomy) 3. Dr. K.Ramakrishnan, Programme Coordinator
			Period: April 2018 to March 2019
6.	Area of the FFS field	:	1acre
7.	Name of the collaborator *(in whose field the FFS is to be laid)*	:	Mr. N.Rakkisamuthu Thovalai
8.	Major problems in the FFS village relevant to the crop/enterprise	:	Lack of crop management techniques Indiscriminate use of pesticides
9.	Objectives of the FFS	:	❖ To demonstrate and make the farmers aware about the improved ICM practices in tuberose for obtaining higher yield
10.	Guest Faculty to be involved	:	❖ Horticulture ❖ Agricultural Entomology ❖ Plant Pathology ❖ Agronomy ❖ Soil science

11. FFS Curriculum of **INTEGRATED CROP MANAGEMENT IN TUBEROSE**

Activity	Session-1	Session-2	Session-3
FA	Seasons and varieties	Propagation and Selection of Planting material	Field preparation, spacing and planting
LTE			
SS			
ST			
Others			

Activity	Session-4	Session-5	Session-6
FA	Integrated nutrient management	Use of growth regulators in flower quality improvement	Integrated Pest & Nematode management
LTE			
SS			
ST			
Others			

Activity	Session-7	Session-8	Session-9
FA	Integrated Disease management	Marketing	Value addition
LTE			
SS			
ST			
Others			

Activity	Session-10
FA	Exposure visit to Floriculture Research station, Thovalai
LTE	
SS	
ST	
Others	

12. Budget breakup model:

S. No.	Item	Amount (Rs.)
1.	Refreshment @ Rs. 75 per trainee/sesssion (10 sessions)	18750
2.	Contingent expenditure, Banners and refreshment for inaugural function of FFS	1500
3.	Distribution of training materials and demonstration materials	4250
4.	Booklet preparation	2000
5.	Exposure visit to Floriculture Research station, Thovalai	3500
	Total	30000

24. Budget - Details of budget utilization (2017-18) up to 31 Mar'18 (Rs.)

Sl. No.	Particulars	RE 2017-18	Expenditure up to 31.3.2018
A.	**Recurring Items**	8474000	9244040
1	Pay & Allowances	145000	144797
2	Travelling Allowances		
3	Contingencies		
a	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter		176277
b	POL, repair of vehicles, tractor and equipments	840000	231861
B.	**Technical Programmes**		
a)	Food and refreshment for KVK training programmes for Farmers/ Extension personnel (Rs. 150/- per person per day)		115648
b)	Training Materials for trainings and demonstrations		101130
c)	Training of extension functionaries		9947
d)	Publication of extension literature for Farmers and Extension functionaries	974000	
e)	Honorarium for trainers		500
f)	On Farm Testing (OFT)		40228
g)	Front Line Demonstration (FLD)		133095
h)	Kisan Melas / Farmers fair		77971
i)	Library (purchase of newspaper, journals etc.)		10130
j)	Maintenance of Farm		29650
k)	EDP / IFS / FFS		36785
l)	Soil testing refill & printing of Soil Health Card		9851
	TOTAL (A)	**10433000**	**10361910**
B.	**NON-RECURRING CONTINGENCIES**		
1	Equipments and Furniture		
a	Office Automation		
b	Furniture & Fixtures		
c	Information Technology	75000	63722
2	Works		
3	Vehicle		
	TOTAL (B)	**75000**	**63722**
C.	**REVOLVING FUND**		
	GRAND TOTAL (A+B+C)	**10508000**	**10425632**

25. Details of Budget Estimate (2018-19) based on proposed action plan

S. No.	Particulars	BE 2018-19 proposed (Rs.)
A.	**Recurring Items**	
25.1	**Pay & Allowances**	9829820
25.2	**Traveling allowances**	250000
25.3	**Contingencies**	
a)	Stationary, telephone, stamps and other expenditure of office running	300000
b)	POL, Repair of vehicles, tractor & equipments including hiring of vehicles	300000
B.	**Technical Programmes**	
a)	Food and refreshment for KVK training programmes (Rs. 150/- per person per day)	188000
b)	Training Materials for trainings and demonstrations	150000
c)	Training of extension functionaries	50000
d)	Publication of extension literature for Farmers and Extension functionaries	10000
e)	Honorarium for trainers	10000
f)	On Farm Testing (OFT)	117750
g)	Front Line Demonstration (FLD)	245750
h)	Kisan Melas / Farmers fair	50000
i)	Library (purchase of newspaper, journals etc.)	20000
j)	Maintenance of Farm	75000
k)	EDP / IFS / FFS	70000
l)	Soil testing refill & printing of Soil Health Card	25000
25.4	**TOTAL Recurring Contingencies**	**11691320**
25.2	**Non-Recurring Contingencies**	
25.2.1	Equipments and Furniture	
	a. Office Automation	300000
	b. Furniture & Fixtures	500000
	c. Farm Equipments	50000
	d. Generator 15 KV	500000
25.2.2	**Proposed Works**	
	Farmers hostel	6625000
	Staff quarters	8200000
	Mushroom demo unit	200000
	Vermicompost demo unit	100000
	Borewell	131000
	Compound wall cum fencing	3000000
	Vehicle shed	500000
	Storage godown	2500000

	Road formation	500000
25.2.3	Vehicle	
	Tractor 42 HP	800000
	Power tiller	200000
25.2	**TOTAL Non-Recurring Contingencies**	**24106000**
25.3	**REVOLVING FUND**	
25.4	**GRAND TOTAL**	**35797320**

Justification for Non-Recurring Contingencies

<table>
<tr><th>Sl. No</th><th>Particulars</th><th>Justification</th><th>Budget (Rs.)</th></tr>
<tr><td>1</td><td colspan="2">Equipments and Furniture</td><td></td></tr>
<tr><td>1.1</td><td>Office Automation</td><td>ICAR- Krishi Vigyan Kendra, Kanyakumari has total staff strength of 16 members. The Subject Matter Specialists need computers to document the mandated activities of KVK such as On Farm Testings, Front Line Demonstrations and trainings, preparation of reports such as Action plan, Annual Reports, Monthly progress reports apart from routine official communications. Over and above, the farmers' data base and online reporting system need to be updated regularly. The activities of office such as accounting, pay bill generation and other official correspondence necessitates the aid of computers. At present there are four desk top computers and one lap top available with KVK as detailed below.
<table>
<tr><th>SI. No.</th><th>Items</th><th>Date of Purchase</th><th>Working condition</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Computer – I</td><td>07.04.2000</td><td>Not in working condition</td><td>Unserviceable condition</td></tr>
<tr><td>2.</td><td>Laptop Computer (IBM)</td><td>17.10.2006</td><td>Not in working condition</td><td>Unserviceable condition</td></tr>
<tr><td>3.</td><td>Laptop Computer (Lenova)</td><td>06.11.2007</td><td>Working condition</td><td>Could not be upgraded</td></tr>
<tr><td>4.</td><td>Computer – II</td><td>22.08.2009</td><td>Working condition</td><td>Could not be upgraded</td></tr>
<tr><td>5.</td><td>Apple I Mac Workstation</td><td>20.10.2009</td><td>Working condition</td><td>Could not be upgraded</td></tr>
</table>
Since the computers are older version with low configuration and the efficiency of computer assisted works also affected and they could not be upgraded so far. In this context, the computers of higher version are needed so as to perform the works efficiently in time.</td><td>3,00,000</td></tr>
</table>

		In this regard, I submit to request that an amount of **Rs.3.0 lakhs** may be allotted in the Budget 2018-19 for the purchase of three desk top computers and one laptop as s **special case.**	
1.2	Furniture & Fixtures	ICAR- Krishi Vigyan Kendra, Kanyakumari was shifted to the newly constructed Administrative building at Thirupathisaram during 2014. ICAR- Krishi Vigyan Kendra, Kanyakumari is regularly organizing trainings, seminars and workshops to the farmers on various crop production and management technologies. The programmes *viz.*, Pre Kharif awareness, Pre Rabi awareness, Scientific Advisory Committee Meetings and Zonal Workshops are being regularly organized at Krishi Vigyan Kendra, Thirupathisaram. Apart from these, awareness on special programmes announced by Pradhan Mantri and Tamil Nadu state government are also organized very often. A mass of nearly 100 farmers and officials will be attending the programmes. The following items are to be required for the KVK • Storage cupboards (5 Nos.) are required for keeping the office documents, library books and electric and electronic appliance under safe conditions. • Computer table and chair (3 Nos. each) for keeping computers under safe conditions • Staff table (4 Nos.) are required for the existing staff members • Plastic chairs (250 Nos.) is required for conducting special programs at KVK in mass • Steel table (15 Nos.) is required for exhibiting the technology products	5,00,000
1.3	Farm Equipments	ICAR-Krishi Vigyan Kendra, Kanyakumari started in the year 2004 with 50 acre farm is utilized for showcasing the latest technologies to the betterment of farming community and other stake-holders. Rice, Fruit crops (Banana, Mango and Sapota) and fodder crops are established in the instructional farm. To carry out the necessary field preparations to raise crops and green manure incorporations we need cage wheel. At present cage wheel is not available, alternatively we hired the cage wheel. However, we are unable to carry out all the time bound farm oriented activities and also hiring cost very high. In this regard, the purchase of a new cage wheel is required for puddling operation in rice field.	50,000
1.4	Generator 15 KV	ICAR-KVK started functioning at Thirupathisaram with effect from 2014. Now, the ICAR-KVK, Thirupathisaram is functioning without power backup for office automation,	5,00,000

		which faces multiple difficulties with intermittent power shutdown hampering the routine office work, trainings and other extension activities of KVK. Also the problem of non availability of generators in hiring at peak seasons during the special programmes / farmers melas of KVK was also faced. In this context, purchase of a generator (15 KV) with the approximate budget of **Rs. 3.5 lakhs** (Rupees three lakhs and fifty thousand only) is highly essential for the effective conduct of the trainings and official work without power interruption.	
2	**Works**		
	Farmers hostel	ICAR- Krishi Vigyan Kendra, Kanyakumari which was functioning previously in the Horticultural Research Station, Pechiparai from 2004 and was further shifted to Agricultural Research Station, Thirupathisaram during 2014. Currently, administrative building is only available at KVK, Thirupathisaram and no additional facilities are available for accommodating the farmers visiting KVK for attending residential training programme such as vocational training, EDP training, sponsored training, long duration skill development training programmes, meetings, seminars, workshop, symposium, etc. Since KVK is located in Thirupathisaram village, which is 6 km away from Nagercoil town and logistics facility is very limited to reach KVK. So, it is essential to have a farmers' hostel in the premises of KVK, Thirupathisaram so as to provide comfortable stay while undergoing the training programmes. Development of infra-structure facility (Trainees Hostel) to create stress free learning atmosphere for farmers and to make trainings more productive is required. So, it is very essential to construct a farmers hostel to accommodate around 50 farmer trainees' sustaining with full-fledged lodging facility and to ensure comfort stay for farmers during training period. The approximate expenditure will be **Rs. 66.25 lakhs** (Rupees sixty six lakhs and twenty five thousand only) as per the detailed estimate obtained from the Dean, AC&RI, TNAU, Killikulam. In this regard, allotment of necessary funds for the construction of trainees hostel at ICAR - KVK, Kanyakumari favours successful conduct of training programme in near future.	66,25,000
	Staff quarters	ICAR- KVK, Kanyakumari which was functioning previously in Horticultural Research Station, Pechiparai from 2004 and was shifted to Agricultural Research Station, Thirupathisaram during 2014 which is about 6 km away from Nagercoil town. The KVK has an	82,00,000

		administrative building which was constructed during 2014 and there is no residential quarters for the staff of this Institute. Most of the staff members are traveling far away from various places daily. In this regard, to execute the day to day activities apart from monitoring farm activities in an effective manner, the staffs need to be resided within the KVK premises. Development of infra-structure facility viz., residential quarters in a building plinth area of **400 m^2** is required to create stress free working atmosphere for the KVK scientists. The approximate expenditure will be **Rs. 82.00 lakhs** (Rupees eighty two lakhs only) as per the detailed estimate obtained from the Dean, AC&RI, TNAU, Killikulam. In this regard, allotment of necessary funds for the construction of residential quarters at ICAR - KVK, Kanyakumari favours the effective functioning of KVK activities.	
	Mushroom demo unit	ICAR- KVK, Kanyakumari which was functioning previously in the Horticultural Research Station, Pechiparai was shifted to Agricultural Research Station, Thirupathisaram during 2014. As a mandate activity, vocational training on various enterprises are being provided to the rural youth. Mushroom production is one of the overwhelming enterprises undertaken by many rural youth. In this regard, it is proposed to provide vocational training on mushroom production so as to motivate the rural youth to become entrepreuners in this venture. At present, well established mushroom production unit is not available at Krishi Vigyan Kendra, Thirupathisaram for demonstration purpose. In this connection, it is proposed to establish a mushroom production demo unit which enables to provide quality training as well as production of mushroom in order to strengthen the revolving fund. The approximate estimate for the establishment of mushroom production unit is **Rs.2.00 lakhs** (Rupees Two lakh only). Allotment of funds for the construction of mushroom unit at ICAR-KVK, Kanyakumari favours the unemployed rural youth in self employment and intake of healthy food supplement	2,00,000
	Vermicompost demo unit	ICAR- KVK, Kanyakumari which was functioning previously in the Horticultural Research Station, Pechiparai was shifted to Agricultural Research Station, Thirupathisaram during 2014. As a mandate activity, vocational training on various enterprises are being provided to the rural youth. Vermicompost production is one of the overwhelming enterprises undertaken by many rural youth. In this regard, it is proposed to provide	1,00,000

		vocational training on vermicompost production so as to motivate the rural youth to become entrepreuners in this venture. At present, well established vermicompost production unit is not available at Krishi Vigyan Kendra, Thirupathisaram for demonstration purpose. In this connection, it is proposed to estabilish a vermicompost production demo unit which enables to provide quality training as well as production of vermicompost in order to strengthen the revolving fund. The approximate estimate is **Rs.1.00 lakh** for the construction of vermicompost demo unit. Budget allotment for the establishment of vermicompost unit at ICAR-KVK, Kanyakumari favours the farming community in gaining knowledge and skill in vermicomposting which in turn supports organic farming.	
	Borewell	ICAR-KVK started functioning at Thirupathisaram, Kanyakumari with effect from 2014. Till now, the provision for water supply made by the Thirupathisaram panchayat was utilised to meet out the water demad of KVK. At present the water supply is found to be inadequate to meet out the growing demand. In addition, the irrigation water for the KVK farm and demo unit completely depend on the seasonal supply of dam irrigation of the District. This affects the production of KVK farm, mainly the seed production of rice which has high demand among the rice growing farmers of the District. In this connection, sinking of a borewell to a depth of 300 feet with an approximate budget of **Rs.1.31 lakhs** (Rupees one lakh and thirty one thousand only) is essential for drinking water and irrigation purpose.	1,31,000
	Compound wall cum fencing	Compound wall is highly essential to protect the instructional farm activities from the trespassers as well as the wild animals from the nearby area.	30,00,000
	Vehicle shed	New Bolero jeep (TN 66V-0655) was purchased during March 2017 and presently this KVK is functioning with only a single administrative building. The vehicles *viz.*, Bolero Jeep, Two wheelers (2 Nos.) are parked near the KVK premises in open air condition. There is no shed for halting the vehicles. In this regard, a vehicle shed is essentially required to halt the Jeep so as to protect the vehicles from scorching sun and rain.	5,00,000
	Storage godown	ICAR-KVK started functioning at Thirupathisaram, Kanyakumari with effect from 2014. So far the ICAR-KVK, Thirupathisaram is functioning without a proper storage godown for harvested produces and inputs especially seeds, fertilizers and pesticides. Storing the products and inputs within the office administrative	25,00,000

		building where regular trainings are being conducted faces much difficulty. In this regard, constuction of a storage godown (100 sq. metre) exclusively for the storage of the seeds, fertilizers and pesticides with an approximate budget of **Rs.25.0 lakhs** (Rupees twenty five lakhs only) is highly essential for the supply of quality of the seed materials to the farming community.	
	Road formation	The farm road 150 m were completely eroded and washed off due to the run off from elevated to low lying area. So, the road must be renovated.	5,00,000
3	**Vehicle**		
	Tractor 42 HP	At present this Kendra is equipped with one number of Tractor massy furgusan 35 hp TN 74 X 4104 purchased during December 2002. The extensive field operations have to be carried out for various intercultural farm operations. The only available massy furgusan Tractor frequently gets repair and the expenditure for repairs exceeds the limits and at present conditions it needs to be overcome with major repairs like Engine overhaul, Clutch basin assembly set, Break set (Right and Left), Water bump assembly, Dinamo service charge, Hydraulic sentar shaft devain and Electrical work replacement and all it requires an amount of Rs.75,000/- for repairs and maintenance. To spend such a huge amount on more than ten years old vehicle is an uneconomical. So, the purchase of new 42 hp tractor required for effective conduct of KVK farm activities	8,00,000
	Power tiller	ICAR-Krishi Vigyan Kendra, Kanyakumari starterd in the year 2004 with 50 acre farm is utilized for showcasing the latest technologies to the betterment of farming community and other stake-holders. Rice, Fruit crops (Banana, Mango and Sapota) and fodder crops are established in the Instructional farm. At present power tiller is not available and most of the time it is engaged on rental basis to carry out the intercultural farm operations. However, all the farm activities on time bound farm operation and it is very difficult to get the power tiller on time to carry out field operation. So, the purchase of new power tiller is essentially required for effective farm intercultural operation.	2,00,000