

PROFORMA FOR PREPARATION OF ANNUAL REPORT 2019-20
(April 2019-March 2020)

APR SUMMARY

Name of the KVK: ICAR-KVK, TNJFU, Nagapattinam Dt.

1. Technology Assessment

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	4	20	20
Livestock	2	7	7
Various enterprises	-	-	-
Total	6	27	27
Technology Refined			
Crops	-	-	-
Livestock	-	-	-
Various enterprises	-	-	-
Total	-	-	-
Grand Total	6	27	27

2. Frontline demonstrations

Details	No. of Farmers/Locations	Area (ha)	Units/Animals
Oilseeds	-	-	-
Pulses	10	4.0	
Cereals	57	22.8	
Vegetables			
Other crops	30	12.0	
Total	97	35.2	
Livestock & Fisheries	15	-	200 Nos(Quail)
Other enterprises	-	-	-
Total	15	-	200
Grand Total	112	35.2	200

3. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	52	1096	808	1904
Rural youths	10	195	270	465
Extension functionaries	8	174	107	281
Sponsored Training	9	245	147	401
Vocational Training	1	10	25	35
Total	80	1696	1351	3047

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1035	20487
Other extension activities	1121	-
Total	2156	20487

5. Mobile Advisory Services

Message Type	Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Text only	1	6	-	-	5	4	16
Voice only							
Voice & Text							
Total	1	6	-	-	5	4	16

6. Seed & Planting Material Production

	Quintal/Number	Value (Rs.)
Seed (q)	155.82	57738
Planting material (No.)	4491	134585
Bio-Products (kg)	2531.5	131088
Livestock Production (No.)	83	12160
Fishery production (No.)	347	36884

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	277	26700
Water	48	2400
Plant	-	-
Total	325	29100

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	3
2	Conferences	2
3	Meetings	3
4	Trainings for KVK officials	4
5	Visits of KVK officials	
6	Book published	5
7	Training Manual	2
8	Book chapters	6
9	Research papers	8
10	Lead papers	-
11	Seminar papers	-
12	Extension folder	28
13	Proceedings	1
14	Award & recognition	5
15	Ongoing research projects	-

DETAILED PROGRESS REPORT 2019-20

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

a) Name of the KVK	:	KVK-Nagapattinam Dt.
b) Address	:	Sikkal-611 108
c) Landline Phone No.	:	04365-246266
d) Fax No.	:	-
e) Official Mobile No.	:	-
f) email ID	:	kvksikkal@tnfu.ac.in

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

a) Name of the Host Organization	:	Tamil Nadu Dr.J.Jayalalithaa Fisheries University
b) Address	:	Vettar River View Campus, Nagapattinam-611 002, Tamilnadu.
c) Landline Phone No.	:	04365-256244
d) Fax No.	:	04365-256433
e) Official mobile No.	:	
f) email ID	:	vc@tnfu.ac.in

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

a) Name	:	Dr.A.Gopalakannan, Ph.D
b) Phone - residence	:	-
c) Mobile	:	8838882451
d) email ID	:	gopalakannan@tnfu.ac.in

1.4. Year of sanction: 2004

1.5. Staff Position (as on 31th March, 2020)

Sl. No.	Sanctioned post	Name of the incumbent	Designation(eg.SMS)	Discipline (eg.Agronomy)	Edn. Qualification (eg.M.Sc.(Agriculture))	Specialization (if applicable) eg.Agronomy	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent/Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. A. Gopalakannan	PC	Fish Bio Technology	Ph.D	Fish Bio Technology	1,31,400-2,17,100	1,35,300	04.03.2019	Permanent	OBC
2	Subject Matter Specialist	Mr. E. Hino Fernando	SMS	Extension	M.FSc.,	Fisheries Extension	56,100-1,77,500	57800	03.12.2018	Permanent	OBC
3	Subject Matter Specialist	Dr. K. Chandrasekar	SMS	Plant Protection	Ph.D	Agriculture Entomology	56,100-1,77,500	57800	06.12.2018	Permanent	OBC
4	Subject Matter Specialist	Dr. S. Muthukumar	SMS	Veterinary Science	M.VSc.,	Veterinary Science	56,100-1,77,500	57800	28.12.2018	Permanent	OBC
5	Subject Matter Specialist	Dr.V.Kannan	SMS	Agronomy	Ph.D	Agronomy	56,100-1,77,500	56100	13.06.2019	Permanent	SC
6	Subject Matter Specialist	Dr.A.Mathivanan	SMS	Home Science	Ph.D	Fish Processing Technology	56,100-1,77,500	56100	14.06.2019	Permanent	OBC
7	Subject Matter Specialist	Mr. K.Ragu	SMS	Horticulture	M.Sc., (Horticulture)	Vegetables	56,100-1,77,500	56100	17.07.2019	Permanent	SC
8	Programme Assistant	Mr. V. Gnanabharathi	Programme Assistant (Tech.)	Agriculture	B.Sc., (Agriculture)	-	35,900-1,13,500	57500	05.06.2007	Permanent	SC
9	Computer Programmer	Ms. G. Ramya	Programme Assistant (Computer)	Computer Science	B.Sc.,(Computer Science)	-	35,400-1,12,400	36,500	07.12.2018	Permanent	SC

10	Farm Manager	Mr. R. Vedharethinam	Farm Manager	Agronomy	M.Sc.,(Agri)	Agronomy	35,900-1,13,500	57500	04.06.2007	Permanent	OBC
11	Accountant / Superintendent	Mr. S. Tamilselvan	Assistant	Chemistry	B.Sc.,	-	20,600-65500	26100	05.06.2018	Permanent	SC
12	Stenographer	Vacant									
13	Driver	Mr. S. Prasanth	Driver	-	-	-	18500-58600	19100	07.12.2018	Permanent	SC
14	Driver	Mr. J. Sathishkumar	Driver	-	-	-	18500-58600	19100	07.12.2018	Permanent	OBC
15	Supporting staff	Vacant									
16	Supporting staff										

1.6. Total land with KVK (in ha) (Consolidated figure):

S. No.	Item	Area (ha)
1	Under Buildings	2.40
2.	Under Demonstration Units	3.17
3.	Under Crops	15.90
4.	Orchard/Agro-forestry	1.20
5.	Others (specify)	0.00

1.7. Infrastructural Development:**A) Buildings:**

S.No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area(Sq. m)	Status of construction (Completed/ in progress/ to be initiated)
1.	Administrative Building	ICAR	02/03/2009	548	41.65	-	-	Completed
2.	Farmers Hostel	ICAR	09.03.2009	300	26.38	-	-	Completed
3.	Staff Quarters (No.)	ICAR	19.03.2009	400	33.30	-	-	Completed
4.	Demonstration Units					-	-	Completed
	Seed Production-Paddy	ICAR		2.0 ha	-	-	-	Completed
	Fodder Production	ICAR	24.03.2019	0.4 ha	-	-	-	Completed
	Nursery production	ICAR	2011	300 m ²	-	-	-	Completed
	Coconut seedling production	ICAR	2011	-	-	-	-	Completed
	Tree seedling production	ICAR	2009	200 m ²	-	-	-	Completed
	Pseudomonas production	ICAR	2014	-	-	-	-	Completed
	Bee hives	ICAR	2019	2 nos.	-	-	-	Completed
	Panchakavya production	ICAR	2019	-	-	-	-	Completed
	Vermicompost	ICAR	2009	3 nos.	-	-	-	Completed
	Coirpith Compost	ICAR	2009	-	-	-	-	Completed
	Poultry Rearing	ICAR	24.03.2019	-	-	-	-	Completed
	Quail Unit	ICAR	24.03.2019	-	-	-	-	Completed
	Dairy unit	TNJFU	2019	-	-	-	-	Completed
	Goat rearing unit	TNJFU	2019	-	-	-	-	Completed
	IFS Unit	ICAR	24.03.2019	-	-	-	-	Completed
	Azolla		2009	-	-	-	-	Completed

	Fish farm pond unit	TNJFU	2018		10,00,000	-	-	Completed
	Aqua phonics	NFDB-TNJFU	16.04.2019	200 m ²	10,66,000	-	-	Completed
	Fish/Prawn Pickle production unit	TNJFU	2019	-	-	-	-	Completed
	Fish Amino Acid production	ICAR	2019	-	-	-	-	Completed
5	Fencing	ICAR	16.04.2013	470 m	5.00	-	-	Completed
6	Rain Water harvesting system	State Govt.	16.03.2007	2400	0.80	-	-	Completed
7	Threshing floor	ICAR	21.01.2014	213	3.00	-	-	Completed
8	Farm godown	ICAR				-	-	Completed
9	Shed (Farm equipment)	ICAR	16.04.2013	37.20	3.00	-	-	Completed

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Four Wheeler Bolero Jeep	2017	8,34,445	19652	Good Condition
Two Wheeler (TVS – Star city)	2006	39,641	7415	Good condition
Two Wheeler (Suzuki Access 125)	2009	49,651	795	Good condition
Tractor	2005	345607	77.8 hrs	Good condition

C) Equipment & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
HCL Computer with printer	2011	37600	Good Condition
Data processing system (one desktop, HP Colour printer)	2012	90000	Good Condition
COMPAQ-Laptop	2007	49400	Good Condition
Hp laser printer-1010	2007	8800	Good Condition
SAMSUNG SCX4521-F fax cum printer	2009	14400	Good Condition
Printer -HP-Laser jet 1020 plus	2012	6450	Good Condition
LCD projector SANYO- PLC XW 55	2007	53500	Good Condition
Mini lab- Soil Testing Kit	2016	75000	Good Condition
Mini lab- Soil Testing Kit -Additional	2017	100000	Good Condition
SLR Digital camera	2016	40000	Good Condition
Office Automation-Equipment	2017	300000	Good Condition

1.8. A). Details SAC meeting(s) conducted in the year: NIL**2. DETAILS OF DISTRICT (2019-20)****2.0.Operational jurisdiction of KVKs:**

Name Tehsils (8 Nos.)	Name of Block (11 nos.)	No. of Villages (434 nos.)
Nagapattinam	Nagapattinam	29
	Thirumarugal	39
Vetharanyam	Vetharanyam	36
	Thalainayar	24
Thirukuvalai	Keelaiyur	27
Kilvelur	Kilvelur	38
Tranqubar	Sembanarkoil	57
Mayiladuthurai	Mayiladuthurai	54
Kuthalam	Kuthalam	51
Sirkazhi	Sirkazhi	37
	Kollidam	42

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

S. No	Farming system/enterprises
1.	Rice – Rice – Rice fallow Pulses
2.	Rice – Rice fallow Pulses/Cotton
3.	Rice – Rice – Groundnut / Sesame
4.	Rice – Rice – Sugarcane (3 years rotation)
5.	Rice – vegetables / flower crops
6	Livestock
7	Poultry
8	Fisheries

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 types in the jurisdiction

S. No	Soil type	Characteristics	Area (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 jurisdiction for 2019-20 Kharif

S. No	Crops	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	Paddy	37259	1389.9	37.30
2	Groundnut	2623	-	-
3	Gingelly	1405	-	-
4	Cotton	5354	-	-
5	Millets	37	1.8	50.00
6	Sugarcane			

Rabi

S. No	Crops	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	Paddy	132055	4327.8	32.77
2	Black gram	31953	161.5	5.05
	Green Gram	37990	183.6	4.83

Summer

S. No	Crops	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	Paddy	387	0.01454	37.41

Sl.No	Crop	Area (Ha)	Production (M.T)	Productivity (M.T/Ha)
FRUITS				
1	Mango	2293.70	20643.30	18
2	Banana	629.80	20153.60	64
3	Lemon	43.85	833.15	38
4	Narthai	8.70	165.30	38
5	Sathukudi	1.00	15.00	15.00
6	Guava	12.90	232.20	36
7	Sapota	2.20	26.40	24
8	Jack	8.70	156.60	36
9	Amla	8.10	153.90	38
10	Jamun	3.90	11.70	6
11	Pomegranate	0.82	6.56	8
12	Water-Melon	159.50	4466.00	56.00
VEGETABLES				
1	Brinjal	151.90	3797.50	50
2	Bhendi	103.60	2072.00	40
3	Cluster beans	37.80	151.20	8
4	Snake Gourd	59.00	944.00	32
5	Bitter Gourd	49.40	691.60	28
6	Drum Stick	6.10	213.50	70
7	Ridge Gourd	26.74	374.36	14
8	Ash Gourd	1.30	22.10	17
9	Bottle Gourd	4.33	51.96	12
10	Cucumber	46.65	373.20	8
11	Greens	86.60	86.60	2
12	Lab Lab	1.30	7.80	12
13	Yam	1.00	4.00	4
14	Tapioca	44.00	1408.00	32
FLOWERS				
1	Mullai	224.60	2246.00	20.00
2	Malligai	15.06	120.48	8.00
3	Rose	11.90	38.08	3.20
4	Marigold	3.00	90.00	30.00
4.SPECIES				
1	Chillies	6.20	111.60	36
2	Tamarind	274.30	2743.00	20
5.PLANTATION CROPS				
1	Cashew	1380.00	3450.00	5
2	Palmyrah	302.00	0.00	0.00
3	Bamboo	262.10	0.00	0.00
4	Cocoa	3.00	36.00	12.00
5	Coconut	3076.50	30765.00	20

6	OilPalm	33.50	603.00	18
7	Areacanut	2.10	1.58	1.5

2.5. Weather data (April 2019 to March 2020)

Month	Rainfall (mm)	Temperature°C		Relative Humidity (%)
		Maximum	Minimum	
April – 2019	0	-	-	-
May – 2019	0	-	-	-
June – 2019	0	-	-	-
July – 2019	57.3	-	-	-
Aug – 2019	171.2	-	-	-
Sep – 2019	110.9	-	-	-
Oct – 2019	356.2	-	-	-
Nov – 2019	353.7	-	-	-
Dec – 2019	376.1	-	-	-
Jan – 2020	11.5	-	-	-
Feb – 2020	0.3	-	-	-
Mar – 2020	0	-	-	-
Total	1437.2	-	-	-

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2019-20)

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	251634	-	-
Buffalo	7093	-	-
Sheep			
<i>Crossbred</i>	32554	-	-
<i>Indigenous</i>			
Goats	486509	-	-
Pigs			
<i>Crossbred</i>	426	-	-
<i>Indigenous</i>	-	-	-
Rabbits	-	-	-
Poultry			
Hens	-	-	-
<i>Desi</i>	-	-	-
<i>Improved</i>	-	-	-
Ducks	-	-	-
Turkey and others	-	-	-

Category	Area	Production	Productivity
Fish			
<i>Marine</i>	-	85860 tons	
<i>Inland</i>	1951 ha	18648 tons	
Prawn	-	-	-
Scampi	-	-	-
Shrimp	1565 ha	17428 tons	

2.7. Details of Adopted Villages (2019-20)

Sl.No	Taluk/ mandal	Name of the block	Name of the village	Year of adoption	Major crops & enterprises	Major problem identified	Identified Thrust Areas
KVK adopted villages							
1	Vetharanyam	Thalainayar	Marachery	2017-18	Rice, Pulses and Tree crops	Yield reduction due to saline problem (EC - more than 2 dS/m). Use of Saline water for irrigation.	Increasing the productivity of Rice Maximizing the yield in vegetable crops INM and IPDM for Rice, Vegetables and Coconut. Crop diversification. Production enhancement in coconut. Value addition in Vegetables and Fruits
2	Kilvelur	Kilvelur	Agarakadambanur	2006-07	Rice, Pulses, Vegetable, Fisheries, goat and poultry	Non adoption of traditional rice varieties High demand for organically grown traditional rice variety. Lack of fish production technologies	Eco friendly ICM and IPDM in rice. Inland composite fish production.
DFI villages							
1	Kilvelur	Kilvelur	Agarakadambanur	2018-19	Rice, Pulses, Vegetable, Fisheries, goat and poultry	Non adoption of traditional rice varieties High demand for organically grown traditional	Eco friendly ICM and IPDM in rice. Inland composite fish production.

						rice variety. Lack of fish production technologies	
2	Nagapattinam	Nagapattinam	Ponveli	2018-19	Rice, Pulses, Forestry, livestock and fish	Lack of knowledge and non utilization of new high yielding Green gram varieties. Low yielding existing varieties. High J. quail chicks mortality Increased demand for J. quail meat. Retarded growth rate. Kid mortality.	ICM in Rice, ICM in Pulses, IFS, Fisheries and Value addition in Fish

2.8. Priority/thrust areas

S. No	Crop/Enterprise	Thrust Area
1.	Rice, Pulses	INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice
2.	Vegetable crops	INM and IPDM for vegetable crops and yield maximization
3.	Mango and Coconut	INM and IPDM for Mango and Coconut
4.	Cotton	ICM and IPDM for yield maximization
5	IFS	Livestock production under IFS and Livelihood management
6	Fisheries	Fish culture
8	Fish, Milk, Vegetable and Fruits	Value addition

2.9. Salient Achievements of (April 2019-March, 2020) (Mandated activities/ Projects)

S.No	Activity	Target	Achievement
1.	Technologies Assessed (No.)	11	9
2.	On-farm trials conducted (No.)	29	27
3.	Frontline demonstrations conducted (No.)	16	13
4.	Farmers trained (in Lakh)	0.01385	0.02775

5.	Extension Personnel trained (No.)	0.00360	0.00193
6.	Participants in extension activities (in Lakh)	0.08000	0.20487
7.	Production of Seed (in Quintal)	400	155.82
8.	Planting material produced (in Lakh)	0.15400	0.04491
9.	Live-stock strains and fingerlings produced (in Lakh)	0.06000	429.53
10.	Soil, Water, plant, manures samples tested (in Lakh)	0.00800	0.00325
11.	Mobile agro-advisory provided to farmers (in Lakh)	0.00050	0.00016
12.	No.of Soil Health Cards issued by Mini Soil Testing Kits (No.)	0.00800	0.00325
13.	No.of Soil Health Cards issued by Traditional Laboratory (No.)	-	-

2.10. Salient Achievements by KVK during 2019-20 (bullet points)

- Jal SkthiAbhiyan-KisanMela programmes(3nos.) conducted.
- Conducted Exhibition on State level AgriIntex at CODISSIA complex, Coimbatore.
- Conducted District level Exhibition on Inauguration of Medical College by Honourable CM, Tamilnadu.
- CAT Training programme on Dairy Cattle Management
- NADCP awareness programme conducted
- Launching of NADCP for FMD & Brucellosis and Artificial insemination programme by Honourable Prime Minister
- Tree plantation drive conducted.
- World Environmental Day conducted.
- International Potato conference and Webcasting of Hon'ble PMs speech:
- Fertilizers application Awareness Programme Conducted.
- Skill Training of Rural Youth (STRY) on Integrated Development of small Ruminants and Rabbits
- Inauguration of Aquaponics demo unit.
- Started Dairy unit.
- Started Goat rearing unit

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2019-20

i) OFT (Technology Assessment)

Number of technologies		Total no. of Trials	
Targets	Achievement	Targets	Achievement
11	9	29	27

ii) FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement
18	15	93	75.2	246	206

iii) Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)

Clientele	Number of Courses		Number of Participants	
	Targets	Achievement	Targets	Achievement
Farmers	-	2	-	100
Rural youth	-			
Extn. Functionaries	-	-	-	-

iv) Extension Activities

Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement
657	1035	8000	20487

v) Seed Production (q)

Target	Achievement	Distributed to no. of farmers
400	155.82	47

vi) Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
15400	4491	165

v) Livestock (Nos.)

Target	Achievement	Distributed to no. of farmers
6000	429.53	292

vii) Bio inputs (Kg)

Target	Achievement	Distributed to no. of farmers
18000	2531.5	108

3.B. TECHNOLOGY ASSESSMENT

i) Summary of technologies assessed under various **crops** by KVKs (Add rows wherever required)

Thematic areas	Crop	Name of the technology assessed	Source of technology with year	No. of trials	No. of farmers
Integrated Nutrient Management	-	-	-	-	-
	-	-	-	-	-
Varietal Evaluation	Groundnut	Assessment of drought tolerant groundnut varieties under rainfed condition	IIOR & TNAU	5	5
	Bhendi	Assessment of Performance of Bhendi hybrids in Nagapattinam district	(TNAU, 2016) & (IIHR, 2017)	5	5
Integrated Pest Management	Maize	IPM of Fall Army Worm (<i>Spodoptera fugiperda</i>) on Maize	ICAR 2018	5	5
	Coconut	Assessment of management modules against Rugose Whitefly in Coconut	ICAR	5	5
Integrated Crop Management	-	-	-	-	-
	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-
	-	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-	-
	-	-	-	-	-
Weed Management	-	-	-	-	-
	-	-	-	-	-

Resource Conservation Technology	-	-	-	-	-
	-	-	-	-	-
Farm Machineries	-	-	-	-	-
	-	-	-	-	-
Integrated Farming System	-	-	-	-	-
	-	-	-	-	-
Seed / Plant production	-	-	-	-	-
	-	-	-	-	-
Post Harvest Technology / Value addition	-	-	-	-	-
	-	-	-	-	-
Drudgery Reduction	-	-	-	-	-
	-	-	-	-	-
Storage Technique	-	-	-	-	-
	-	-	-	-	-
Fisheries	GIFT fish	Evaluation of growth performance of Red Tilapia and GIFT Tilapia in farm ponds	TNJFU	2	2
	-	-	-	-	-
Total				22	22

ii) Summary of technologies assessed under **livestock** by KVKs

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management	-	-	-	-
Evaluation of Breeds	-	-	-	-
Feed and Fodder management	Dairy	Assessment of Effect on Mixed Fodder bank on livestock productivity	5	5
Nutrition Management	-	-	-	-
Production and Management	-	-	-	-
Others (Pl. specify)	-	-	-	-
Total				

iii) Summary of technologies assessed under various **enterprises** by KVKs

Thematic areas	Enterprise	Name of the technology assessed	Source of technology with year	No. of trials	No. of farmers
Fisheries	GIFT Fish	Evaluation of growth performance of Red Tilapia and GIFT Tilapia in farm ponds	TNJFU	2	2
		Total		2	2

3.C. TECHNOLOGY ASSESSMENT IN DETAIL

OFT1 : Assessment of drought tolerant groundnut varieties under rainfed condition

1. Thematic area: Varietal evaluation

2. Title: Assessment of drought tolerant groundnut varieties under rainfed condition

3. Scientists involved: Dr. V. Kannan, SMS Agronomy and Dr. A. Gopalakannan, coordinator, Nagapattinam

Programme

4. Details of farming situation:

Groundnut (*Arachis hypogaea* L.) is an important crop of Nagapattinam district grown widely in the Coastal blocks of the district. Thaipattam (January) is the main season for cultivation. Farmers cultivating Groundnut are facing yield decline due to intermittent dry spells. Hence the OFT was formulated to find suitable drought tolerant varieties for the district. OFT's were implemented at Kovilpathu village of Vedharanyam Block. Soil type is Sandy loam in texture. The fertility status of soil is N:220, P: 15, K: 265 kg/ha. The amount of rainfall received is 375 mm with rainy days during crop season.

5. Problem definition / description:

In Nagapattinam, due to erratic rainfall and frequent drought during the crop growth period, groundnut yields are generally low and unstable under rainfed conditions.

6. Technology Assessed:

TO 1 - Farmer's practice

TO 2 - TMV 14

TO3- Kadiri 9

7. Critical inputs given:

S.No	Critical input	Quantity	Rate (Rs)
1	Seeds -TMV 14	40 kg	5200
2	Seeds – Kadiri 9	40 kg	4000
Total			9200

8. Results:

Table: Performance of the technology

Technology Option	No. of trials	Yield (t/ha)	Net Returns	B:C ratio	No. of Pods/ Plant
Farmers Practice (Western 44)	5	14.7	48675	2.04	18
Technology 1(TMV 14)		18.3	71450	2.5	23
Technology 2(Kadiri 9)		16.18	57670	2.21	21

From the accessed groundnut varieties, TMV 14 was performed well and recorded higher yield 18.3 q/ha in the drought condition with 23 number of pods/plant, whereas Kadri 9 and Farmers practice western 44 variety recorded lower yield.

Constraints faced: Nil

9. Feedback of the farmers involved:

- TMV 14 was observed with fully filled up matured kernels than K9 and Western 44.
- Performance of K9 and TMV14 was similar in terms of drought tolerance.

10. Feed back to the scientist who developed the technology:

- TMV 14 matures early in 103days, which is earlier than K9 and Western 44.
- TMV 14 was shown resistance to pests and disease.

OFT 2: Assessment of new high yielding Bhendi hybrids in Nagapattinam District

1. Thematic area : Varietal evaluation

2. Title : Assessment of new high yielding Bhendi hybrids in Nagapattinam District.

3. Scientists involved: SMS (Horticulture) & Programme Coordinator

4. Details of farming situation:

Bhendi cultivated in Naluvadhpathy village of Vedharanyam Block. The soil type is sandy loam with low nitrogen (198 kg/ha), low Phosphorous (8.4 kg/ha) and medium Potassium (164 kg/ha). The private hybrid of bhendi was recorded high pest and disease incidence, low yield among 150 famers in an area of 60 ha. Cropping scheme of this village Brinjal – Bhendi – Groundnut – Chilli and Panthal vegetables. The main crop cultivation season is kharif. Total area under bhendi is 85 ha with average production of 150 q/ha of fresh fruit. The village received annual rainfall of 1437.2 mm.

5. Problem definition / description:

The private hybrid (Mahyco-10) gives low yield due to high pests such as, YVMV, mites and powdery mildew disease. Farmers are unaware of high yielding bhendi hybrids that give better yield and also have moderate disease resistance. Farmers are getting low market price for

fruits/pods. So, the farmers prefer to go for high yielding bhendi hybrids. The trail area also have low water potential this also results in higher YVMV incidence.

6. Technology Assessed:

TO1 :Farmer Practice

Mahyco-10

TO2: Alternate practice1

Bhendi Hybrid CO 4 TNAU 2016, Duration : 110 days ,Yield 25.60 t/ha

All the districts of Tamil Nadu except hilly regions. Medium size fruits; 25-29 fruits/plant; 22 harvests in 110 days. Resistant to bhendi YVMV disease

TO3: Recommended Practice

IIHR-Arka Nikita, IIHR2017.Produces dark green, medium, smooth and tender fruits.

Excellent cooking quality, nutritionally rich in antioxidant activity, high mucilage content(1.08 % (FW) and high edible fiber content (8.85 % (DW). Rich in iodine content (33.31 μ g/kg). Yields 21-24 t/ha in 125 -130 days duration.

7. Critical inputs given: (along with quantity as well as value)

Name of critical input	Qty per trial/ha	Cost per trial (Rs.)
Seeds	1 Kg/ac	2000
Seeds	1 Kg/ac	2000
IIHR Vegetable special	1 kg	160
Field board	1 nos	400

8. Results:

Table : Performance of the technology

<i>Technology Option</i>	<i>No.of trials</i>	<i>Fresh fruit Yield (q/ha)</i>	<i>Net Returns (Rs./ha)</i>	<i>B:C ratio</i>
<i>TO 1 (Mahyco-10)</i>	5	228.0	221000	1.94
<i>TO 2 (Co 4)</i>		276.0	381700	2.69
<i>TO 3 (Arka Nikita)</i>		264.0	299500	2.31

<i>Technology Option</i>	<i>No of fruits yield per plant</i>	<i>Percentage of pest and disease incidence (%)</i>
<i>TO 1 (Mahyco-10)</i>	20	24
<i>TO 2 (Co 4)</i>	29	15
<i>TO 3 (Arka Nikita)</i>	25	21

The results of the assessment of two new high yielding hybrids of Bhendi in Nagapattinam district indicated that out of the private hybrid viz., (mahyco-10).Co 4 recorded significantly higher fresh fruit yield of 276q/ha followed by Arka Nikita with 264 q/ha and the lowest fresh fruit yield of 228 q/ha was recorded in private hybrid (Mahyco-10). The highest number of fruits per plant of 29 was recorded in CO-4 followed by Arka Nikita (25). The lowest number of fresh fruits per plant of 20 was recorded in private hybrid. In the case of net returns, CO-4 was recorded significantly higher net return of Rs. 381700/ha followed by Arka Nikita (Rs. 299500/ha) and the least net returns was recorded in private hybrid (Mahyco-10) (Rs. 221000/ha). During flowering stage of crops farmers faced YVMV incidence problem in private hybrids. The CO4 Bhendi was recorded higher fresh fruit yield and farmers could get good quality of fruits.

Constraints faced:

Most of the farmers were cultivated private hybrid of bhendi. Due to high pest and disease incidence of private variety leads to low yield and low market price. Co-4 has moderately resistant to YVMV incidence. Cultivation of Co-4 were recorded higher yield than other private hybrids in Nagapattinam district.

9. Feed back of the farmers involved:

Farmers informed that the new hybrids CO-4 and Arka Nikita hybrids had less incidence of pest and diseases. After the assessment farmers wanted to cultivate the same hybrid seeds for every season and requested the KVK to make arrangements to procure the same.

10. Feed back to the scientist who developed the technology:

Private Hybrid (Mahyco-10): Cylindrical sized fruits is fetching better price in the market but this variety recorded low yield.

TNAU Hybrid Bhendi CO 4: No of harvest was more in CO 4 Bhendi hybrid. Higher market price during February month helped to get more profit. Moderately resistant to YVMV.

IIHR-Arka Nikita: Spineless fruits reduced the itching during harvest. Medium sized fruits is fetching better price in the market but this variety recorded high yield when comparing private hybrid.

OFT 3: Effect of Mixed Fodder bank on livestock productivity

1. Thematic area: **Livestock Nutrition**
2. Title: **Effect of Mixed Fodder bank on livestock productivity**

3. Scientists involved: **Dr. S. Muthukumar**

4. Details of farming situation:

This trial was conducted at 50 cent area in each field. Totally 1 hectare area was taken for study. Input materials were given to farmers of Nagapattinam, Kuthalam and Vedharanyam blocks.

5. Problem definition / description:

- Inferior quality fodders for grazing
- Poor milk production

6. Technology Assessed:

Farmer Practice: In this animals are fed with either inferior grasses or Cumbu Napier grass-4.

TO1: Effect of mixed fodder on the produce and performance viz, Milk production, health and others.

7. Critical inputs given: CoFS 31 seed- 0.125 Kg, Co (BN) 5 cuttings, 1200 Nos, Hedge lucerne (CO 1) - 0.6 Kg, Agathi- 0.075 Kg and Subabul- 0.075 Kg.

8. Results:

Performance of the technology

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (T/ha)</i>	<i>Net Return (Rs. in /ha)</i>	<i>B:C ratio</i>	<i>Data on Other performance indicators*</i>
<i>Farmers Practice</i>	5	<i>Trial is in progress</i>			
<i>Technology 1 (Mention details)</i>					

OFT4: Evaluation of Growth performance of Red Tilapia & GIFT Tilapia in farm ponds

1. Thematic area: Fisheries
2. Title: Evaluation of Growth performance of Red Tilapia & GIFT Tilapia in farm ponds
3. Scientists involved: Mr. E. Hino Fernando & Dr. A. Gopalakannan
4. Details of farming situation: GIFT and Red Tilapia can breed throughout the year. They can grow well in earthen pond system with clayey loam soil
5. Problem definition / description: Fish farmers doing carp culture need minimum 10 months to attain marketable size of 750g. In a water scarce district like Nagapattinam pond water gets dried up within 6 months and the farmers are forced to harvest the fishes within that period. In a replacement for this species, GIFT tilapia, a resistant fish variety which can attain marketable size in 4 -5 month period. Farmers in this district are less aware about this species. Hence this trial can be taken up and trial can be carried out to check the feasibility of this species in the district.
6. Technology Assessed: This technology assessed the growth performance of GIFT Tilapia and Red Tilapia cultured in a earthen pond system. Farmers usually collect seeds from wild source and stock their ponds. Tilapia attains sexual maturity within 3 months and starts breeding. Due to this breeding behaviour number of fishes in the pond increases which result in competition for space. Therefore, GIFT tilapia seed fills the gap by making all male population to stop breeding during culture.
7. Critical inputs given:
 - GIFT Tilapia Seed-1000 Nos
 - Red Tilapia Seed – 1000 Nos
 - Fish Feed -
8. Results:

Performance of the technology

<i>Technology Option</i>	<i>No. of trials</i>	<i>Yield (t/ha)</i>	<i>Net Returns (Rs. in a)</i>	<i>B:C ratio</i>	<i>Data on Other performance indicators*</i>
<i>Farmers Practice</i>	2	<i>0.7/ha</i>	<i>3200</i>	<i>1.06</i>	
<i>Technology 1(Mention details)</i>		<i>1.01/ha</i>	<i>11500</i>	<i>1.12</i>	
<i>Technology 2(Mention details)</i>		<i>1.80/ha</i>	<i>89000</i>	<i>1.89</i>	

Description of the results:

Constraints faced:

GIFT (Genetically Improved Farmed Tilapia) is a short term crop which can be cultured within 4 – 5 months. Since Nagapattinam is a water scarce district, Tilapia culture is best suited for this district. Pre-stocking measures like pond construction, pond preparation, sundrying of pond bottom was carried out. GIFT Tilapia seeds were purchased from the Tilapia seed farm, State Fisheries Department, Krishnagiri. Seeds were stocked in the earthen ponds after fertilization with cowdung. GIFT and Red Tilapia seeds of 1.5 inch size were stocked at 1000 Nos/Sqm. Feeding trial started from the next day of stocking the seed. Water test was conducted before stocking and once in a month. Samplings were also done

once in 20 days. Length and weight of fishes were recorded. Final weight of fishes were recorded during harvest. Feeding is given at the rate of 5% body weight for 5 months and 3% body weight for 5 months. Monthly sampling was carried out during the culture period. After a culture period of 10 months average body weight of GIFT Tilapia fishes recorded was 550g and length recorded was 30cm. GIFT Tilapia showed better growth rate compared to Red tilapia in earthen pond system.

9. Feedback of the farmers involved:

- Fish attains faster growth in shorter period
- Can withstand any climatic conditions
- Omnivorous feeding habit
- Fetches a good market price
- Can sell the fishes live
- Less availability of seeds

10. Feed back to the scientist who developed the technology:

OFT 5: IPM of Fall Army Worm (*Spodoptera fugiperda*) on Maize – Trail is in progress

OFT 6: IPM of Rugose Spiraling Whitefly in Coconut- Trail is in progress

3.D. FRONTLINE DEMONSTRATION

a. Follow-up of FLDs implemented during previous years

S. No	Crop/Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
-	-	-	-	-	-	-	-

b. Details of FLDs (Information is to be furnished in the following tables category wise i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

S l. No.	Crop	Them atic area	Technology Demonstrated	Seas on and year	Sour ce of funds	Area (ha)		No. of farmers/demonstrati on			Reasons for shortfall in achievement
						Pro posed	Actu al	SC/ ST	Othe rs	Total	
1	Rice	Va rie ty	Demonstration of Newly released rice variety VGD 1 in Nagapattinam District	R ab i 20 19	IC A R	8	6. 8			17	Non availabilit y of seeds
2	Rice	Va rie ty	Demonstration of Saline tolerant rice varieties for	R ab i	IC A R	4	4	4	6	10	-

			Nagapattinam District	2019							
3	Black gram	ICM	Demonstration of ICM in Black gram VBN 8 in Nagapattinam Dt.	Rabi 2019	ICAR	4	4			10	-

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Source of funds	Area (ha)		No. of farmers/demonstration			Reasons for shortfall in achievement
						Proposed	Actual	SC/ST	Others	Total	
1	Paddy	New variety	Newly released rice variety ADT 53	Rabi 2019	ICAR	8ha	4 ha	2	8	10	Fund
2	Paddy	IPDM	Eco friendly pest and disease management in Thaladi (Rabi) paddy	Rabi 2019	ICAR	4 ha	4 ha	3	7	10	-
3	Paddy	IDM	IDM strategies for False smut in Rice	Rabi 2019	ICAR	4 ha	4 ha	3	7	10	-
4	Cotton	IPM	Eco friendly IPM strategies for major Sucking pests in cotton	Rabi 2019	ICAR	4 ha	4 ha	3	7	10	-
5	Coconut	IPM	Eco friendly IPM strategies for major pests in Coconut	Rabi 2019	ICAR	4 ha	4 ha	3	7	10	-
6	Jasmine	IPM	Demonstration on Eco friendly IPM strategies for major pests in Jasmine	Rabi 2019	ICAR	4 ha	4 ha	3	7	10	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					

Rice	Rabi 2019	Irrigated	Clay loam	L	M	H	Rice				
Rice	Rabi 2019	Irrigated	Clay loam	L	M	H	Rice				
Black gram	Rabi 2019	Irrigated	Clay loam	L	M	H	Rice	29.01.2020	07.04.2020		

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Paddy	Rabi 2019	Irrigated	Alluvial	L	M	H	Black gram	16.5.19	5.9.19	-	-
Paddy	Rabi 2019	Irrigated	Alluvial	L	M	H	Black gram	27.11.19	23.03.19	-	-
Paddy	Rabi 2019	Irrigated	Alluvial	L	M	H	Black gram	10.09.19	3.2.2020	-	-
Cotton	Rabi 2019	Irrigated	Alluvial	L	M	H	Paddy	On going	-	-	-
Coconut	Rabi 2019	Irrigated	Coastal alluvium	L	M	H	Coconut	On going	-	-	-
Jasmine	Rabi 2019	Irrigated	Coastal alluvium	L	M	H	Jasmine	On going	-	-	-

FLD 1: Demonstration of Newly released rice variety VGD 1 in Nagapattinam District

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Performed well around the district with non-lodging in nature
2	Stem borer incidence was more in this variety.

Farmers reactions on specific technologies

S. No	Feed Back
1	Grain size similar to seeraga samba, looks very bright colored
2	Seed shattering was seen in this variety, when it crosses its duration 130 Days.

Extension and Training activities under FLD

S.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	03.02.2020	18	
2	Farmers Training	-			
3	Media coverage	-			
4	Training for extension	1	08.09.2019	43	In Zonal

	functionaries				Agricultural officers meeting lecture was given on this saline tolerant variety,
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FLD 2: Demonstration of Saline Tolerant Rice variety for Nagapattinam Dt.

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	CSR 36 was performed well in saline condition (EC 4.0)
2	Long slender type not prepared locally around farmers community.

Farmers' reactions on specific technologies

S. No	Feed Back
1	Less incidence of Pest and disease were noticed
2	Merchants preference was less for this variety

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	21.02.2020	15	CSR 36 variety performance was discussed
2	Farmers Training	1	19.09.2019	18	Off campus training and seed distribution was held at Thalainayar ADA office.
3	Media coverage	1	25.02.2020	-	Field day was covered in media,
4	Training for extension functionaries	1	08.09.2019	43	In Zonal Agricultural officers meeting lecture was given on this saline tolerant variety,

FLD 3: Demonstration of ICM in Black gram VBN 8 in Nagapattinam dt.

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Number of pods is more than 25/plant
2	Performed well with short duration of 65 days

Farmers' reactions on specific technologies

S. No	Feed Back
1	Good yielding compared all other locally sown varieties
2	Low incidence in Pest and disease

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities	Date	Number of participants	Remarks
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		organized			
1	Field days	-	-	-	--
2	Farmers Training	1	31.01.2020	16	Seed was distributed and Crop production techniques were discussed among FLD farmers
3	Media coverage	-	-	-	-
4	Training for extension functionaries	-	-	-	-

d. Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Coconut Rhinoceros beetle Eradication Programme – Good
2	-

e. Farmers' reactions on specific technologies

S. No	Feed Back
1	-
2	-

f. Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days				
2	Farmers Training	4	Cotton (16.05.2019) Maize (20.09.2019) Paddy (31.10.2019, 05.11.2019 and 11.02.2020) Fruit crops (22.08.2019) Coconut (12.01.2019)	30 150 140 30 55	-
3	Media coverage	3	Maize (20.09.2019) Paddy 11.02.2020 Coconut (12.01.2019)	-	-
4	Training for extension functionaries	10 Zonal Meeting	Zonal meet	-	-

Crop	Thematic Area	technology demonstrated	Name of the Variety/ Hybrid		No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
			Domo	Check			Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
							High	Low	Average										
Flowers	IPM	Demonstration on Eco friendly IPM strategies for major pests in Jasmine	-	-	10	4.0					Ongoing								

ii) Frontline demonstrations on Livestock 3020

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter Survivability		Economics of demonstration (Rs.)				Economics of check (Rs.)				
					Demo Growth	Check Growth		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)	
Cattle		Hydroponics fodder cultivation technology to rural farmer	5	-						Ongoing								
Buffalo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dairy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Poultry		Improved Aseel performance under back yard system	5	30						Ongoing								
Sheep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J.quail		Scientific Rearing of Japanese Quail among rural farmers	5	200	220 g	160 g	137.5	94%	90%	4500	7520	3020	1.5	4250	5400	1150	1.27	

iii) Frontline demonstrations on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)

vii) Frontline demonstrations on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Nil																	

viii) Frontline demonstrations on crop hybrids (Details of Hybrid FLDs implemented during 2018-19)

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)									
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)						
					High	Low	Average												
Oilseed crop																			
Pulse crop																			
Cereal crop																			
Vegetable crop																			
Fruit crop																			
Other (specify)																			

h) FLDs conducted with the FUNDING OF OTHER SOURCES including CFLD/ATMA/NABARD/other ICAR institutes etc

i) Other Source funded FLDS in CROPS

Crop	Source of fund	Thematic Area	technology demonstrated	Name of the Variety/ Hybrid		No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
				Domo	Check			Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
								High	Low	Average										
Black gram	NFSM	ICM	Integrated Crop Management in Black gram	VBN 8	ADT3	58	20	5.9	3.9	5.1	4.3	15.68	16350	40800	24450	2.5	18825	34400	15575	1.83
Green Gram	NFSM	ICM	Integrated Crop Management in Green gram	CO8	ADT 3	36	20	5.8	3.1	4.71	4.1	12.95	17100	42390	25290	2.48	19225	36900	17675	1.92

ii) Other Source funded FLDS in Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)					
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)		
Cattle																			
Buffalo																			
Dairy																			
Poultry																			
Sheep																			
Goat																			

Nil

iii) Other Source funded FLDS in Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)						
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)			

Nil

iv) Other Source funded FLDS in Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit							
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)				

Nil

v) Other Source funded FLDS in Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check

Nil

vi) Other Source funded FLDS in Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)							
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total				

Nil

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Total (c)	-	-	-	-	-	-	-	-	-	-
d) Plantation crops										
Production and Management technology	1	46	2	48	24	-	24	46	26	72
Processing and value addition										
Others (pl specify)										
Total (d)	1	46	2	48	24	-	24	46	26	72
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)	-	-	-	-	-	-	-	-	-	-
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)	-	-	-	-	-	-	-	-	-	-
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)	-	-	-	-	-	-	-	-	-	-
GT (a-g)	4	59	48	107	36	50	86	111	82	193
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total	-	-	-	-	-	-	-	-	-	-
IV Livestock Production and Management										
Profitable Dairy Farming	1	22	8	30	24	15	39	46	23	69
Goat Rearing	2	23	5	28	7	19	26	30	24	54
Dairy Farming	1	30	5	35	-	-	-	30	5	35
Sheep and Desi bird rearing	2	76	24	100	-	-	-	76	24	100
Desibird and Quail rearing	2	49	21	70	-	-	-	49	21	70
Skill Training- Integrated development of small	1	24	6	30	-	-	-	24	6	30

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition	1	1	31	32	7	0	7	8	31	39
Others (pl specify)										
Total	3	27	33	60	36	1	37	63	34	97
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production	2	17	5	22	10	28	38	27	33	60
Apiculture	3	45	12	57	7	28	35	52	40	92
Others (pl specify)										
Total	5	62	17	79	17	56	73	79	73	152
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total	-	-	-	-	-	-	-	-	-	-
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL	30	616	269	885	135	185	320	767	438	1205

Fry and fingerling rearing										
Any other (pl.specify)										
TOTAL	-	-	-	-	-	-	-	-	-	-

4.7 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	1	27	14	31	-	-	-	27	14	31
Integrated Pest Management	2	22	25	47	-	-	-	22	25	47
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production	2	37	18	55	-	-	-	37	18	55
Household food security										
Any other (pl.specify)										
TOTAL	5	86	57	133	0	0	0	86	57	133

4.8 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
Productivity enhancement in field crops	1	30	16	46	-	-	-	30	16	46
Integrated Pest Management	1	24	12	36	-	-	-	24	12	36
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals	1	34	22	56	-	-	-	34	22	56
Poultry Post mortem Techniques and PM identification-ASCAD										
Household food security										
Any other (pl.specify)										
TOTAL	3	88	50	138	0	0	0	88	50	138

4.9 Training programmes for Extension Personnel including sponsored training programmes – CONSOLIDATED (On + 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
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL		-	-	-	-	-	-	-	-	-

4.10 Sponsored training programmes

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 and management										
Increasing production and productivity of crops	2	58	14	72	11	0	11	69	14	83
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops										
Soil health and fertility management										
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
Total	2	58	14	72	11	0	11	69	14	83
Post harvest technology and value addition										
Processing and value addition										
Others (pl. specify)										
Total	-	-	-	-	-	-	-	-	-	-
Farm machinery										
Farm machinery, tools and implements										
Others (pl. specify)										
Total	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries										
Livestock production and management	2	17	21	38	13	33	46	30	54	84
Animal Nutrition Management	1	67	0	67	10	0	10	77	0	77
Animal Disease Management	1	14	27	41	6	18	24	20	45	65
Fisheries Nutrition	1	3	16	19	11	2	13	14	18	32
Fisheries Management										
Bee keeping	1	17	5	22	5	3	8	22	8	30

Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total	-	-	-	-	-	-	-	-	-	-
Grand Total	1	4	3	7	6	22	28	10	25	35

5. EXTENSION PROGRAMMES

5.1 Extension programmes conducted

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	799	7454	0	7454
Diagnostic visits	34	81	53	134
Field Day	3	35	7	42
Group discussions	2	85	20	105
Kisan Ghosthi	0	0	0	0
Film Show	4	200	15	215
Self -help groups	1	30	2	32
Kisan Mela	5	3800	85	3885
Exhibition	8	3500	45	3545
Scientists' visit to farmers field	127	254	30	284
Plant/ Animal Health Camps	5	132	25	157
Farm Science Club	0	0	0	0
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	0	0	0	0
Method Demonstrations	16	634	14	648
Celebration of important days	5	2500	3	2503
Special day celebration	12	1320	8	1328
Exposure visits	14	155	0	155
Others (pl. specify)				
Total	1035	20180	307	20487

5.2 Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	-
Extension Literature	22
News paper coverage	40
Popular articles	24
Radio Talks	62
TV Talks	14
Animal health camps (Number of animals treated)	5
Research Articles	8
Success Stories	2
News Letter	4

Lectures delivered as resource person	86
Farmers visit to KVK	840
Total	1121

6. MOBILE ADVISORY SERVICES

6.1. No of registered farmers on m-kisan portal: 4245 nos.

6.2 Details of messages sent through m-kisan portal

Types of Messages	Crop		Livestock		Weather		Marketing		Awareness		Other enterprise		Total	
	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers
Text only	2	4245	6	4245	-	-	-	-	4	4245	4	4245	16	4245
Voice only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Voice & Text	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	4245	6	4245	-	-	-	-	4	4245	4	4245	16	4245

6.3 MOBILE ADVISORY SERVICES THROUGH OTHERS

No of registered farmers: 115 nos.

Types of Messages	Crop		Livestock		Weather		Marketing		Awareness		Other enterprise		Total	
	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers	No of messages	No of farmers
Text only	4	115	1	130	-	-	-	-	-	-	-	-	5	245
Voice only	-	-	1	400	-	-	-	-	-	-	-	-	1	400
Voice & Text	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4	115	2	630	-	-	-	-	-	-	-	-	6	645

7. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
Gosthies			Nil
Lectures organised			
Exhibition			
Film show			
Fair			
Farm Visit			
Diagnostic Practicals			
Distribution of Literature (No.)			
Distribution of Seed (q)			

Distribution of Planting materials (No.)	
Bio Product distribution (Kg)	
Bio Fertilizers (q)	
Distribution of fingerlings	
Distribution of Livestock specimen (No.)	
Total number of farmers visited the technology week	

8. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

8.1 Production of seeds by the KVKs (quintal)

Enterprise	Name of crop	Variety	Seed produced		Seed supplied to farmers						Seed supplied to other agencies	
			Quantity (q)	Value (Rs)	Free seed			Priced seed			Quantity (q)	Value (Rs)
					Quantity (q)	No of farmers	Value (Rs)	Quantity (q)	No of farmers	Value (Rs)		
CEREALS	Wheat											
	Paddy	TKM 13	9.5	29470	-	-	-	9.5	6	29470	-	-
		ADT 53	3.5	10850				3.5	1	10850	-	-
	Maize											
	Sorghum (Jowar/Cholam/Jonna)											
	Pearl Millet (Bajra/Cumbu/Sajja)											
	Finger millet (Ragi)											
	Foxtail Millet (Korra/Thenai)											
	Barnyard Millet (Kuthiraivali/Udalu, Kodisama)											
	Kodo Millet (Varagu/Arikelu)											
	Little Millet (Samai/Samalu)											
	Proso Millet (PaniVaragu/variga)											
	Barley											
	Brown top millet											
	Total Cereals		13	40320	-	-	-	13	7	40320	-	-
-OIL SEEDS	Groundnut											
	Sunflower											
	Safflower											
	Sesame											
	Castor											
	Niger											
	Rapeseed & Mustard											
	Linseed											
	Soybean											
	Total Oil Seeds	-	-	-	-	-	-	-	-	-	-	-
PULSES	Pigeon pea (Red Gram)											
	Chick pea (Bengal gram)											
	Green gram	CO8	0.11	960	-	-	-	0.11	2	960	-	-
	Black gram	VBN	1.71	15048	-	-	-	1.71	24	15048	-	-

Sheep												
	Goat	-	-	-	-	-	-	-	-	-	-	-
	Goat	-	-	-	-	-	-	-	-	-	-	-
	Sheep	-	-	-	-	-	-	-	-	-	-	-
	Sheep	-	-	-	-	-	-	-	-	-	-	-
	Sheep	-	-	-	-	-	-	-	-	-	-	-
	Lamb	-	-	-	-	-	-	-	-	-	-	-
	Lamb	-	-	-	-	-	-	-	-	-	-	-
	Other goat/sheep (Specify)	-	-	-	-	-	-	-	-	-	-	-
	Total goat and sheep	-	-	-	-	-	-	-	-	-	-	-
Poultry	Desi bird	Nandhanam	34	9490	-	-	-	34	27	940	-	-
	Desi bird	-	-	-	-	-	-	-	-	-	-	-
	Desi bird chicks	-	-	-	-	-	-	-	-	-	-	-
	Desi bird chicks	-	-	-	-	-	-	-	-	-	-	-
	Broiler	-	-	-	-	-	-	-	-	-	-	-
	Layer	-	-	-	-	-	-	-	-	-	-	-
	Dual purpose birds	-	-	-	-	-	-	-	-	-	-	-
	Japanese Quail	Nandhanam	83	3203	-	-	-	83	28	3203	-	-
	Turkey											
	Emu											
	Ducks											
	Desi bird egg	Nandhanam	26	260	-	-	-	26	6	260		
	Broiler hybrid egg	-	-	-	-	-	-	-	-	-	-	-
	Layer egg (breeding)	-	-	-	-	-	-	-	-	-	-	-
	Egg (Commercial)	-	-	-	-	-	-	-	-	-	-	-
	Quail egg (breeding)	Nandhanam	1205	2410	-	-	-	1205	62	2410	-	-
	Quail egg (commercial)	-	-	-	-	-	-	-	-	-	-	-
	Others under poultry (specify)	-	-	-	-	-	-	-	-	-	-	-
	Total poultry		1348	15363	-	-	-	1348	123	6813	-	-
PIGGERY	<i>Pigs adults</i>	-	-	-	-	-	-	-	-	-	-	-
	<i>Piglets</i>	-	-	-	-	-	-	-	-	-	-	-
	<i>Pork</i>	-	-	-	-	-	-	-	-	-	-	-
	<i>Others related to piggery)</i>	-	-	-	-	-	-	-	-	-	-	-
	Total Piggery	-	-	-	-	-	-	-	-	-	-	-
FISHERY	Fingerlings of Fish type (specify)	-	-	-	-	-	-	-	-	-	-	-
	Fish meat (kg)	GIFT	340.23	33424	-	-	-	340.23	196	33424	-	-
	Total Fishery	-	-	-	-	-	-	-	-	-	-	-
	Grand Total Livestock and fishery		1688.23	48787	0	0	0	1688.23	319	40237	1688.23	48787

9. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples/ SHC	No. of Samples		No. of Farmers	No. of Villages	Amount realized (Rs.)
	Using Mini Soil Testing Lab	Through Traditional Lab			
Soil samples	277	-	277	277	26700
Soil Health Cards (SHC)	277	-	277	277	

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Water	48	48	48	2400
Plant	-	-	-	--
Manure	-	-	-	-
Total	48	48	48	2400

10. SCIENTIFIC ADVISORY COMMITTEE

Date of SAC meeting	Number of members attended
Nil	

Note: please attach the proceedings of sac meeting along with the list of participants

11. PUBLICATIONS

Publications in journals

S. No	Authors	Year	Title	Journal
Nil				

Other publications

S.No	Item	Year	Authors	Title	Publisher
1	Books	2020	Dr. S. Muthukumar	Scientific Cattle Rearing	Aruna
2		2019		Spirulina cultivation	
3		2019		Vannami shrimp cultivation techniques	
4		2019		Vannami shrimp cultivation in low fertile water pond	
5	Booklet	2019		Scientific Goat rearing	
6	Book chapters / manuals				
7	Training manuals	2020	Dr. S. Muthukumar	Desi bird and Japanese quail rearing	

8		2020	Dr. S. Muthukumar	Scientific Goat rearing	
9		2019	Dr. S. Muthukumar	Profitable Dairy farming	
10		2019		GIFT Tilapia culture	
11		2019		Freshwater fish culture	
12	Conference, proceeding papers, popular articles, Bulletins, Short communications	2019-20	Dr. S. Muthukumar	Healthy and Hygienic milk production 2. Mastitis and its control 3. Role of water in milk production 4. Role of light in milk production 5. Question and Answer – part 1 6. Selection of dairy animal. 7. Locomotion scoring in dairy animals 8. Question and Answer – part II	
13	Technical bulletin/ Folders/Leaflet	2019	Mathivanan, A., Hino Fernando, Gopalakannan, A., Jayaraman, R., and S. Felix	Preparation and Storage Methods of Mackerel Fish Pickle	
14		2019	Mathivanan, A., Hino Fernando, Gopalakannan, A., Jayaraman, R., and S. Felix	Preparation and Storage Methods of Prawn Pickle	
15		2019	Mathivanan, A., Hino Fernando, Gopalakannan, A., Jayaraman, R., and S. Felix	Preparation methods of Anchovies Dry Fish	
16		2019	Kannan, V., and V. Gnananbharthi	Soil Testing and its importance	
17		2019	Mathivanan, A., Hino Fernando, Gopalakannan, A., Jayaraman, R., and S. Felix	Risk involved in the Preparation of Prawn and Fish Pickle and their solutions	
18		2019	Dr. S. Muthukumar	FMD and Brucellosis were released as part of NADCP	
19		2019	Kannan, V. and K. Ragu,	Rain water harvesting methods	
20		2019	Kannan, V. and K. Ragu,	Agricultural water management	
21		2019	Kannan, V. and K. Ragu,	Importance of drip irrigation	
22		2019	Kannan, V., Chandrasekar, K, and K. Ragu,	integrated rice nutrient management practices	
23		2019	Kannan, V. Gopalakannan, A., and K. Ragu,	Drip irrigation technology	
24		2019	Kannan, V.,	Agricultural water management	

			Chandrasekar, K. and K. Ragu,	technologies	
25		2019	Kannan, V. and K. Ragu,	Rainwater harvesting methodologies	
26		2019		Composite Fish culture	
27		2019	Gopalakannan, A., Jayaraman, R., and S. Felix	Water quality management in Tilapia Culture	
28		2020	Kannan, V. and K. Ragu,	Collective Farming	
29		2020	Kannan, V. and K. Ragu,	Nutrition Garden	
30		2020	Kannan, V. and K. Ragu,	Scientific Coconut Cultivation	
31	Popular Article	2019	Mathivanan, A., Hino Fernando, Gopalakannan, A., Jayaraman, R., and S. Felix	Risk involved in the Preparation of Prawn and Fish Pickle and their solutions	
32		2019	Dr.S.Muthukumar	Healthy and Hygienic milk production	
33		2019	Dr.S.Muthukumar	Role water in milk production	
34		2019	Kannan, V. Chandrasekar, K. and K. Ragu,	Green manures for soil health improvement	
35		2019	K.Chandrasekar	Fall Army Worm Management	
36		2019	Dr.S.Muthukumar	Role Light in Milk production	
37		2019	Dr.S.Muthukumar	Cattle rearing Question answer	
38		2019	Hino Fernando, Gopalakannan, A., Jayaraman, R., and S. Felix	Aquastar Magazine - A constructive tool for the fishing community	
39			Dr.S.Muthukumar	Locomotion scoring in cow	
40		Reports	2019	-	Annual Action Plan Report 2019-20
41	2019		-	Annual Report 2018-19	
42	Others	-	-	-	-

Newsletter/Magazine

Name of News letter/Magazine	Frequency	No. of Copies printed for distribution
KVK- e News letter	Quarterly	100

12. Training/workshops/seminars etc., details attended by KVK staff

Name of the staff	Title	Dates	Duration	Organized by
Dr.A.Gopalakannan, Programme Coordinator	Annual Action Plan meeting	22.04.2019 to 23.04.2019	2 days	ICAR-ATARI, Hyderabad
Dr.A.Gopalakannan, Programme Coordinator	Annual Review Workshop	23.05.2019 to 27.05.2019	5 days	ICAR-ATARI, Hyderabad
Dr.K.Chandrasekar, SMS(Agri. Entomology)	Training on Microbial Agents of Major Insect pests and Disease of crops	20.06.2019 29.06.2019	10 days	IIOR, Hyderabad.
Dr.K.Chandrasekar, SMS(Agri. Entomology)	Workshop on Fall Army Worm	22.07.2019	1 day	TNAU, Coimbatore-3
Dr.K.Chandrasekar, SMS(Agri. Entomology)	Workshop on Nematode management in Agricultural crops	23.07.2019	1 day	TNAU, Coimbatore-3
Dr.V.Kannan, SMS(Agronomy)	Training on Advanced Irrigation System	19.08.2019 21.08.2019	3 days	NIPHM, Hyderabad.
Mr.E.Hino Fernando, SMS(Fisheries Extension)	Good Practices and Innovation in Agricultural Extension	26.08.2019 30.08.2019	5 days	MANAGE, Hyderabad & TNAU, Coimbatore
Mr.V.Gnanabharathi, Programme Asst. Technical	Pay and Allowances meeting 2019- 20	27.11.2019 30.11.2019	4 days	ICAR-ATARI, Hyderabad
Mr.S.Tamilselvan, Assistant.	Pay and Allowances meeting 2019- 20	27.11. 2019 30.11. 2019	4 days	ICAR-ATARI, Hyderabad
Mr.E.Hino Fernando, SMS(Fisheries Extension)	Online course on e-Extension	Oct-2019 Nov-2019	6 weeks	IIT Kanpur & COL, Canada
Dr.A.Gopalakannan, Programme Coordinator	Training on Right To Information(RTI) Act 2005	24.01.2020	1 day	TNJFU, Nagapattinam
Dr.A.Gopalakannan, Programme Coordinator	International Convention on Perspectives to Face Contemporary Challenges in Agricultural Development.	18.02.20 & 19.02.20	2 days	BharatiyaKisanSangh& ICAR, New Delhi
Mr.E.Hino Fernando, SMS(Fisheries Extension)	International Convention on Perspectives to Face Contemporary Challenges in Agricultural Development.	18.02.2020 & 19.02.2020	2 days	BharatiyaKisanSangh& ICAR, New Delhi

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

Activities conducted				
No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)
2	2	-	100	12

14. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL/HAILSTORM/COLD WAVES ETC

Introduction of alternate crops/varieties

Crops/cultivars	Area (ha)	Extent of damage	Recovery of damage through KVK initiatives if any
Nil			

Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	Nil	
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No.of participants
Nil		

Animal health camps organized:

Number of camps	No.of animals	No.of farmers
2	193	55
	305	65
Total	498	120

Seed distribution in drought hit states

Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Nil			

Large scale adoption of resource conservation technologies

Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Nil		

Awareness campaign

Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
Nil											

15. Awards/rewards received by KVK and staff

Recognitions & Awards/Special attainments and Achievements of Practical Importance			
Recognitions & Awards (Team Award/individual)			
Item of Recognition	Year	Awarding Organization National / International / Professional; Society	Individual/ collaborative
Best Worker	2019	TNJFU	Individual
Best Worker	2019	TNJFU	Individual
Best Worker	2019	TNJFU	Individual
Special Attainments & Achievements of Practical Importance (patents, technologies, varieties, products, concepts, methodologies etc.)			
Category	Title	Year	Individual/ Collaborative Additional Details/Information
Nil			

16. Details of sponsored projects/programmes implemented by KVK

S.No	Title of the programme / project	Sponsoring agency	Objectives	Duration	Amount (Rs)
1	Profitable Dairy farming	NABARD	Training	3 Days	39,800
2	Integrated development of Small Ruminants and Rabbits	ATMA	Training	6 Days	42,000
3	ICAR-Development Grant	ICAR-TNJFU	SCSP components	One year	4,00,000
4	University Revolving Fund Project	TNJFU	Income Generation for KVK	-	

1. Profitable Dairy Farming:

CAT Training programme on Dairy Cattle Management- Newer Scientific Technological Intervention Report(Grant under farm sector promotion fund)

Venue: Keelaiyur, **Training period:** 19/08/19 to 21/08/19.

Training programme was inaugurated by Dr. A. Gopalakannan, Programme coordinator, Krishi Vigyan Kendra, Sikkal. Mr. Sankaran (lead bank manager) delivered Special address, in his speech he insisted the importance of maintaining healthy credit score for availing bank loans and further he stressed the farm women to get rid off highly charged micro finance. Mr. Selvamani, Director, Rural Self employment Training Institute (RSETI) explained about the role of RSETI in farm sector and their mandate. Dr. S. Muthukumar welcomed the gathering and latter Dr. K. Chandrasekar delivered the vote of thanks. 30 Farmers from Keelaiyur village participated in the entire 3 days training programme.

The following technical information were shared on the first day *viz*, Introduction to dairy farming, Indigenous and Exotic Cattle Breeds, Dentition, selection of dairy animal, Infertility and management, Housing management, Breeding management, Dry period management. Clean milk production, milking methods, Mastitis and Ethno veterinary formulation for mastitis, watering of animal and role of water in milk production. Breeding policies of Tamil Nadu, artificial insemination and productivity improvement. Under each and every topic important areas were covered based on nature of suitability of the technique to local area.

The second day session was started with the quick recap of previous day chapters. During the second day the following topics were covered *viz*, Calf a year program, Calf to Cow – 2years, Body condition scoring (BCS), Locomotion scoring (LS), Feeding management, Summer management of dairy animal, Disease management (Vaccination, Deworming), Per liter costing of milk, Cost reduction, Cultivation of Azolla, hydroponics, silage making. Economical impact of infertility on farm profitability, calf rearing, feed formulation vs commercial feed & azolla incorporation were covered on the second day. As a invitee trainer Dr.M. Kannan from Thiruvarur handled the feeding management session.

Last day of CAT training was fully utilized for field trip to Ammaiyaar dairy farm, Lakshmi integrated farm, KVK Mathur and KVK Sikkal. Farmers were taken to the above mentioned farms and observed the following units/techniques/skills. Dr. Prince- farm vet and Dr. Gobu, Subject Matter Specialist (AH), KVK Mathur had handled the technical session, Programme coordinator, Mathur KVK gave the orientation about the KVK. The valedictory function was conducted at KVK sikkal campus; Dr. K. Chandrasekar SMS- Agricultural Entomology delivered welcome address. Mr. Prabakaran, NABARD-DDM interacted with all the trainees and collected the feedbacks of the training and usefulness of the programme. Further, he explained about the various support /assistance that are available in NABARD,

finally certificates were distributed to all the participants. Mr. Ragu, SMS- Horticulture delivered vote of thanks.

Exposure Visit

S. No	Farm visited and Address	Duration	Technology/skill learned/ unit visited
1	Lakshmi integrated farm, Kiramathumedu	2 hours	Machine milking, Vermicomposting, Panchakavya
2	Ammaiyar Dairy farm, Karaikkal	3 Hours	Silage unit Hi tech housing Milk parlor Loose housing Milk value addition
3	KVK, Mathur, Karaikkal	1 hour	Hydroponics unit Hatchery unit Mini Dairy unit
4	KVK, Sikkal, Nagapattinum	1 Hour	Azolla demo unit Vermicompost unit Panchakavya unit IFS unit Fodder cafeteria Poultry unit J. quail unit Lined fish pond

2.Skill Training of Rural Youth (STRY) on Integrated Development of Small Ruminants and Rabbits

1	Name of the Training programme	:	Skill Training of Rural Youth (STRY) on INTEGRATED DEVELOPMENT OF SMALL RUMINANTS AND RABBITS
2	Duration and Date of the Programme	:	6 days, from 12/03/2020 to 17/03/2020
3	SAMETI Sanction No.	:	The Director ,SAMETI, Kudumianmalai Lr.No. SAMETI/167/2019, Dated 02.03.2020
4	Name of the course Co-ordinator	:	DR.S. MUTHUKUMAR, SMS(Veterinary Science)
5	Co- Coordinator	:	DR. A. GOPALAKANNAN DR. K. CHANDRASEKAR
5. Objectives of the Programme			
i) To train the rural youth in Small Ruminant and Rabbit scientific rearing practices for higher productivity and higher returns.			
ii) To build the capacity and confidence prospective of rural youth to start and run their own sheep and goat enterprises.			
iii) To improve farm productivity by means of various scientific interventions, feeding, breeding, weeding and other managerial practices to the small ruminants and rabbits.			
6	Number of Candidates applied for Programme	:	45
	No. of Candidates selected	:	30
	No. of Candidates Registered for Training	:	32
	No. of Candidates dropped out of the Training	:	02
	No. of Candidates completed the training	:	30

6.1 Education Profile

Educational Level	No.of Trainees	Percentage to Total
1. Up To Class 7	-	

2. Class 8 to 10	10	33.33
3. Class 12 to Graduate	13	43.33
4. Post Graduate	4	13.33
5. Diploma	3	10.00

6.2 Social Profile

Social Group	No. of Trainees	Percentage to Total
1. Schedule caste(SC)	07	23.33
2. Scheduled tribe (ST)	---	---
3. other backward class (OBC)	23	76.67
4. Minorities	-	-
5. Others	-	-

6.3 Family Background

Profession of the Main Bread Winner in the Family	No. of Trainees	Percentage to Total
1. Labourer	-	-
2. Agriculturist	24	80.00
3. Own Business	03	10.00
4. Job in private sector	03	10.00
5. Government Job	---	---

6.4 Age Profile

Age Group	No. of Trainees	Percentage to Total
1. 18 to 25 Years	05	16.67
2. 26 to 35 Years	07	23.33
3. Above 35 Years	18	60.00

7. Inauguration

- The “ICAR-KVK Sikkal, Nagapattinam District” organized Skill Training of Rural Youth (STRY) under SAMETI through ATMA-SSEPERs 2019-2020 training program on Integrated development of small ruminant and rabbits. The program was conducted for six days from 12/03/2020 to 17/03/2020. A total of 28 trainees from various parts of Nagapattinam District were registered and attended.
- The program was inaugurated by DR. A. Gopalakannan, Programme Coordinator, ICAR-KVK Sikkal, Nagapattinam District. In his inaugural address, He stressed the need for the scientific knowledge on Sheep and goat farming. Besides, in his speech, he detailed about the various activities on animal husbandry expert of KVK Nagapattinam district for the welfare of the Livestock farmers and he also advised the trainees to take up scientific knowledge and adopt scientific methods for rearing of Small ruminants and rabbit farming for their economic upliftment.

Dr.S.Muthukumar, Subject Matter Specialist cum Training coordinator, KVK Nagapattinam welcomed the participants. In his inaugural address, he thanked the Director, SAMETI of Tamil Nadu for sponsoring Rs. 42,000/- for improving the entrepreneurship of rural youth through Skill training of Rural Youth on “Integrated development of small ruminant and rabbits”. He pointed out that the ICAR_Krishi Vigyan Kendra, Nagapattinam keeps providing many such technical supports to rural farmers and young entrepreneurs to facilitate in development of farm operation. He also delivered vote of thanks.

8. Highlights of the Programme

The programme included lectures and demonstrations. A total of eighteen lectures were presented by the experts of the Krishi Vigyan Kendra, Sikkal, Veterinary University Training and Research Institute, Nagapattinam and Progressive farmers. Lectures on “status of small ruminant farming in India and Tamil Nadu, Different type of breeds, opportunities and challenges in small ruminant and Rabbit farming, Different Systems of Small ruminant farming- Broiler goat production, handling of small ruminants and Rabbits, preparation of concentrate mixture, cultivation of Azolla Hydroponic fodder cultivation technology, Deworming of small ruminants and rabbits, Vaccination of small ruminants, Housing, Disease management, Kid care management, Drunken kid management, feeding management, breeding management, different

identification methods, Infrastructure Requirement- Types of shed and their construction, Equipments, their use and maintenance, Selection of animals, Ethno veterinary practices in goat farming, biosecurity measures to be adopted in livestock farm. Demonstration of Azolla cultivation, Hydroponic cultivation , fodder chopping, silage making, Deworming, Vaccination, Homemade concentrate preparation, housing and fodder cultivation etc were done.

9. Valedictory

The valedictory function of the six days STRY training program on “Integrated development of small ruminant and rabbits” was held on 12/03/2020. Regional Joint Director Mr. Panneerselvam was specially invited and distributed the certificates to the trainees. The valedictory function was presided by Dr. A. Gopalakannan, Programme coordinator KVK, Sikkal. Dr. S.Malmarugan, Professor and Head of VUTRC , Nagapattinam also invited for guest lecture on disease management in livestock farms. Regional director on interaction collected feedback from trainees, distributed certificates and manuals. Dr. S.Muthukumar Training Coordinator finally proposed the vote of thanks.

10. Summary of feedback Received from trainees

Sl. no.	Particulars	Self Rating Parameters	No. of Responses	Percentage to Total
1.	Duration of the Programme	Most Appropriate	30	100
		Appropriate	--	--
		Insufficient	--	--
2.	Training Methodology	Very Good	27	90
		Good	3	10
		Not Good	--	--
3.	Post Training Confidence Level	Increased	30	100
		No Change	--	--
		Reduced	--	--
4.	Future Goal	Clear	30	100
		Somewhat clear	--	--
		Not Clear	--	--

11. Plan for Follow-up for Settlement

We created a whats app group for these 30 participants and keeps monitoring their livestock farming activities. If any assistance required on managerial or other bio security aspects will be discussed. On necessary basis farm visit will be made in priority.

17. SUCCESS STORIES

Success Story on GIFT Tilapia culture in Farm Ponds:

Situation analysis/Problem statement:

Fish rearing plays an important role in rural economy. It can empower unemployment of youths in the village to become an entrepreneur. Apart from Carp culture, Genetically Improved Variety (GIFT) of Tilapia is becoming popular nowadays among freshwater fish farmers. GIFT Tilapia can grow reach the marketable size within a short period of 4 months. It is highly resistant to disease and can tolerate and survive under any water conditions. Palatability of cultures Tilapia is also good compared to Indian major carp. Market demand for Tilapia is also high.

Problem identified:

Longer duration of Carp Culture
Lack of IMC seed during off season
Low income of the unemployed youth.

Plan, Implement and Support:**KVK Intervention:****Awareness of Tilapia culture:**

Tilapia culture in HDPE sheets is promoted for water scarced Nagapattinam district

Many farmers undertaking Carp culture shifted to Tilapia culture

Marketing intervention:

Forward integration was made by linking with fish marketing agents for selling

Output:

Weight recorded after four months was 240g.

Average body weight is around 230 g.

Price at which fishes were sold: Rs.: 130/Kg.

More than 100 Queries from farmers for starting Tilapia culture contacted through phone.

Outcome:

- GIFT Tilapia culture is getting popular among the farmers of that village and now people are preferring the taste of tilapia
- Many young entrepreneur from that village started inquiring about the business viability and opportunity.
- Many farmers are ready to take up tilapia culture and enquired for seed availability

Future plan:

Forward integration of the enterprise.

Farmer details

Name: Mr. . Kumar

W/O: Mr. Sasikumar

Village: Thirukanangudy

Block: Nagapattinam

Economic status: BPL

Annual Income: 60000

Phone Number: 9843192832

5. Impact: Large scale/macro level (district/state) evidences related to technological benefits (changes in area and cropping system, livestock number, use of farm machinery & tools, changes in production and productivity of the district/state), economic benefits (contribution to district/state GDP, district agricultural economy), social benefits (education of children, status in the society, house construction etc.), environmental benefits (tolerance to temperature, drought/dry spell etc.), institutional development like processing units, market system, storage structures, industries etc.), etc..

18. CASE STUDIES: Nil**19. INNOVATIVE METHODOLOGY OR TRANSFER OF TECHNOLOGY DEVELOPED AND USED DURING THE YEAR**

-Nil-

20. ITKs

Indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
		Nil	

21. IMPACT OF KVK ACTIVITIES (NOT TO BE RESTRICTED FOR REPORTING PERIOD).

Impact of OFT carried out by the KVK in the district.

Crops	No. of OFT carried during the last five years	Cultivable Area under Crop (in Hectare)		Productivity of the Crop (Per Hectare)	
		Before Dissemination of technology	After Dissemination of technology	Before Adoption of new technology	After Adoption of new technology
Rice	7	144055	164436	3653	3850
Black gram	3	31391	43030	563	750
Green Gram	1	23999	44299	580	725
Sugarcane	1	2685	2712	55000	68000
Ground Nut	1	1913	2673	2800	2900
Cotton	2	321	2633	205	230
Coconut	2	3401	4001	25200 Nuts	26900 Nuts
Vegetables (Brinjal)	1	537	603	18560	19450
Mango	1	1845	3160	6835	12000
Type of Non – Crop Activities	No. of OFT carried during the last five years	Productivity/Yield		Change in Income due to intervention of OFT	
		Before Adoption of new technology	After Adoption of new technology	Before Adoption of new technology	After Adoption of new technology
Farm machinery	1	3653	3800	16088	25918
Animal feed to increase milk production	1	150 liters	195 liters	2,325	3,420

Impact of FLD carried out by the KVK in the district.

Crops	No. of FLD carried during the last five years	Cultivable Area under Crop (in Hectare)		Productivity/Yield of the Crop (Per Hectare)	
		Before Dissemination of technology	After Dissemination of technology	Before Adoption of new technology	After Adoption of new technology

Rice	24	144055	164436	3653	4031
Black gram	7	31391	43030	563	870
Green Gram	2	23999	44299	580	875
Sugarcane	1	2685	2712	55000	75000
Ground Nut	3	1913	2673	2800	3000
Cotton	1	321	2633	205	250
Coconut	3	3401	4001	25200 Nuts	28000 Nuts
Vegetables	14	537	603	18560	21600
Mango	2	1845	3160	6835	16000
Maize	3	27	50	5520	6000
Non-Crop Activities					
Type of Non – Crop Activities	No. of FLD carried during the last five years	Productivity/Yield		Change in Income due to intervention of FLD	
		Before Adoption of new technology	After Adoption of new technology	Before Adoption of new technology	After Adoption of new technology
DSR under Tractor Drawn Seed drill	2	3653	4031	16088	25918
Integrated Farming System	2	-	-	1,25,000	2,79,000
Fisheries	2	613 gm(wt gain)	948 gm (wt gain)	25,289	29,565
Animal feed supplements to increase milk production	2	150 liters	195 liters	2,325	3,420

Adoption technologies by the farmers 2018-19

S. No.	Name of Technologies (Minimum 25 including for areas like crops, horticulture, livestock, fisheries etc.)	Name of activity through which the particular technology given to farmers	No. of Farmers provided technology	Continued adoption of technology by percentage (%) of farmers
1	Assessment of drought tolerant groundnut varieties under rain fed condition	OFT	5	60
2	Assessment of suitable pest tolerant Tomato hybrids for Nagapattinam Dt.	OFT	5	40
3	Production Performance of different poultry breed under Back yard	OFT	3	100
4	Role of Ovisynch and TANUVAS mineral mixture on fertility management	OFT	12	80
5	Assessment of GIFT Tilapia culture in farm ponds	OFT	3	60
6	Demonstration of ICM in Black gram VBN 8 in Nagapattinam dt.	FLD	10	80
7	Demonstration of Traditional rice variety with Eco	FLD	5	100

	friendly management.			
8	Demonstration of Saline Tolerant Rice variety for Nagapattinam Dt.	FLD	10	100
9	Demonstration on Eco friendly IPM strategies for major pests in cotton	FLD	5	100
10	Demonstration of IPDM strategies for Mango fruit flies	FLD	5	60
11	Demonstration of Japanese quail rearing under EDP	FLD	3	33
12	Feed based fish culture in farm ponds	FLD	2	50
13	Integrated Crop management for Black gram VBN 8	CFLD	50	80
14	Integrated Crop management for Green Gram CO 8	CFLD	50	80
15	Integrated Farming System	Training, Demonstration	100	80
16	IPM	Training, Demonstration	80	80
17	Vermicompost Production technology	Training, Demonstration	100	50
18	IPDm for Paddy	Training, Demonstration	100	60
19	IPM for Cotton	Training, Demonstration	50	60
20	Inland fish farming	Training, Demonstration	100	50

Details of impact analysis of KVK activities carried out during the reporting period

Adoption technologies by the farmers 2019-20

S. No.	Name of Technologies (Minimum 25 including for areas like crops, horticulture, livestock, fisheries etc.)	Name of activity through which the particular technology given to farmers	No. of Farmers provided technology	Continued adoption of technology by percentage (%) of farmers
1	IPM of Fall Army Worm for Maize	OFT	5	100
2	Assessment of drought tolerant groundnut varieties under rainfed condition	OFT	5	60
3	Assessment of Performance of Bhendi hybrids in Nagapattinam district	OFT	5	90
4	Effect of Mixed fodder bank on livestock productivity (Grasses, Cereal, Pulse & Tree Fodder)	OFT	5	80
5	Evaluation of growth performance of Red Tilapia and GIFT Tilapia in farm ponds	OFT, Training	2	50
6	Demonstration of Newly released rice variety ADT 53 in Nagapattinam District	FLD	20	100
7	Demonstration of Newly released rice variety VGT 1 in Nagapattinam District	FLD	20	80
8	Demonstration of Saline tolerant rice variety CSR 36 for Nagapattinam District	FLD	10	80
9	Demonstration of Eco friendly pest and disease management in Thaladi (Rabi) paddy	FLD	10	80
10	Demonstration IDM strategies for False smut in Rice	FLD	10	100
11	Demonstration of ICM in Black gram VBN 8 in Nagapattinam Dt.	FLD	10	50
12	Demonstration on Eco friendly IPM strategies	FLD	10	100

	for major Sucking pests in cotton			
13	Demonstration on Eco friendly IPM strategies for major pests in Coconut	FLD	10	30
14	Demonstration on Eco friendly IPM strategies for major pests in Jasmine	FLD	10	100
15	Demonstration of Scientific Rearing of Japanese Quail among rural farmers (EDP)	FLD, Training	55	40
16	Demonstration of Hydroponics fodder cultivation technology to rural farmer	FLD	2	50
17	Demonstration of improved Aseel performance under back yard system	FLD	5	80
18	Integrated Crop management for Black gram VBN 8	CFLD	50	80
19	Integrated Crop management for Green Gram CO 8	CFLD	50	80
20	Integrated Farming System	Training, Demonstration	100	80
21	Coconut IPM for Rhynoceros beetle	Training, Demonstration	200	30
22	Bee keeping	Training, Demonstration	50	33
23	Mushroom production	Training, Demonstration	50	80
24	IPDm for Paddy	Training, Demonstration	100	60
25	IPM for Cotton	Training, Demonstration	50	60
26	Inland fish farming -Carp culture	Training, Demonstration	100	50

22. Functional linkage with different organizations

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 • Organizing Pre Kharif and Pre Rabi programmes • World Soil Day programme • Flood / Drought assessment • Yield performance assessment
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 • Organizing Pre Kharif and Pre Rabi programmes • Flood / Drought assessment • Yield performance assessment • Third party Inspection on Drip irrigation unit at farmers field
Department of Animal Husbandry	<ul style="list-style-type: none"> • Jointly organized training programmes • Jointly organized animal health camps. • Field diagnostic visit
NABARD	Organizing Farm Science Club and exposure visits.
Local NGOs SWEET,	Organizing on/off campus training Programmes and exposure visits, offering

DHANYA, and CCD,	need based technical guidance
TNJFU, TNAU, TANUVAS, K VK-Thiruvapur,	Technical consultancy and exchange of SMS during training programmes.
All India Radio, Karaikal,	<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, ATMA and PMFBY programmes.

List Special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Aquaponics Training and Demo unit	16.04.2019	NFDB	10,66,000