TAMIL NADU DR.J.JAYALALITHAA FISHERIES UNIVERSITY

Annual Progress Report 2020

ICAR-Krishi Vigyan Kendra
Sikkal-611 108
Nagapattinam Dt.

ANNUAL REPORT
(1st January 2020 to 31st December 2020)

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail
1.2.

Name of the KVK	:	KVK-Nagapattinam Dt.
Address	:	Sikkal-611 108
Phone No.	:	04365-246266
Fax No.	:	-
f) email ID	:	kvksikkal@tnfu.ac.in

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

Name of the Host Organization	:	Tamil Nadu Dr.J.Jayalalithaa Fisheries University
Status of the Host Organization (As per the MoU):	:	State Government University
Address	:	Vettar River View Campus, Nagapattinam-611 002, Tamilnadu.
Phone No.	:	04365-256244
Fax No.	:	04365-256433
E mail		vc@tnfu.ac.in
Name of the Chairperson	:	-
Mobile No.	:	-
E mail	:	-

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

Name of the Programme Coordinator / SS&H	:	**Dr.A.Gopalakannan, Ph.D**
Residential Address		
Phone - residence	:	-
Mobile No.	:	8838882451
E mail ID	:	gopalakannan@tnfu.ac.in

1.4. Year of sanction of the KVK : 2004

1.5. Month and year of establishment : July, 2004

1.6. Total land with KVK (in ha) (Consolidated figure): 22.67 ha.

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

1.6.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
1.	Administrative Building	ICAR	02/03/2009	548	41.65	-	-	-
2.	Farmers Hostel	ICAR	09.03.2009	300	26.38	-	-	-
3.	Staff Quarters (No.)	ICAR	19.03.2009	400	33.30	-	-	-
4.	Demonstration Units					-	-	-
a	Seed Production-Paddy	ICAR		2.0 ha	-	-	-	-
b	Fodder Production	ICAR	24.03.2019	0.4 ha	-	-	-	-
c	Nursery production	ICAR	2011	300 m^2	-	-	-	-
d	Coconut seedling production	ICAR	2011	-	-	-	-	-
e	Tree seedling production	ICAR	2009	200 m^2	-	-	-	-
f	Pseudomonas production	ICAR	2014	-	-	-	-	-
g	Bee hives	ICAR	2019	2 nos.	-	-	-	-
h	Panchakavya production	ICAR	2019	-	-	-	-	-
i	Vermicompost	ICAR	2009	3 nos.	-	-	-	-
j	Coirpith Compost	ICAR	2009	-	-	-	-	-
k	Poultry Rearing	ICAR	24.03.2019	-	-	-	-	-
l	Quail Unit	ICAR	24.03.2019	-	-	-	-	-
m	Dairy unit	TNJFU	2019	-		-	-	-
n	Goat rearing unit	TNJFU	2019	-		-	-	-
o	IFS Unit	ICAR	24.03.2019	-	-	-	-	-
p	Azolla		2009	-		-	-	-
q	Fish farm pond unit	TNJFU	2018		10,00,000	-	-	-
r	Aqua phonics	NFDB-TNJFU	16.04.2019	200 m^2	10,66,000	-	-	-
s	Fish/Prawn Pickle production unit	TNJFU	2019	-	-	-	-	-

t	Fish Amino Acid production	ICAR	2019	-	-	-	-	-
u	Hydroponics fodder Production							
5	Rain Water harvesting system	State Govt.	16.03.2007	2400	0.80	-	-	-
6	Threshing floor	ICAR	21.01.2014	213	3.00	-	-	-
7	Farm godown	ICAR				-	-	-
8	Shed (Farm equipment)	ICAR	16.04.2013	37.20	3.00	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total km. Run	Present status
Four Wheeler Bolero Jeep	2017	8,34,445	57114	Good Condition
Two Wheeler (TVS – Star city)	2006	39,641	103732	Good condition
Two Wheeler (Suziki Access 125)	2009	49,651	65172	Good condition
Tractor	2005	345607	227.8 hrs	Good condition

C) Equipment & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
HCL Computer with printer-SWTL	2011	37600	Good Condition
Data processing system (one desktop, HP Colour printer)-PHDFC lab	2012	90000	Repair Condition
COMPAQ-Laptop	2007	49400	Repair Condition
Hp laser printer-1010	2007	8800	Repair Condition
SAMSUNG SCX4521-F fax cum printer	2009	14400	Repair Condition
Printer -HP-Laser jet 1020 plus	2012	6450	Repair Condition
LCD projector SANYO- PLC XW 55	2007	53500	Repair Condition
Mini lab- Soil Testing Kit	2016	75000	Repair 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
Lap top with printer –DAMU scheme	2020	60,000	Good Condition

1.7. A). Details SAC meeting* conducted in the year

S.No.	Date	No of Participants	Salient Recommendations
1.	-	-	-

2. DETAILS OF DISTRICT (2020)

2.0. Operational jurisdiction of KVKs

District	New districts governed by the KVK after	Taluks/Tehsils and/or Mandals

	division of the district, if applicable	under the KVKs jurisdiction
Nagapattinam	Nagapattinam	Nagapattinam
		Vetharanyam
		Thirukuvalai
		Kilvelur
Mayiladuthurai	Mayiladuthurai (District separated from Nagapattinam Dt)	Mayiladuthurai
		Kuthalam
		Sirkazhi
		Tranqubar

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

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 district (or the jurisdiction as the case may be) for 2020

Kharif

S. No	**Crops**	**Area**	**Production**	**Productivity**

		(ha)	(Qtl)	(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

Horticulture Crops:

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
Fruit crops				
1	Mango	2720	244.80	90.00
2	Banana	647	207.04	320.00
3	Lemon	37	7.03	190.00
Vegetable crops				
1	Brinjal	210	5250	250.00
2	Bhendi	158	3160	200.00
3	Snake gourd	55	880	160.00
4	Bitter gourd	55	770	140.00
5	Tapoica	101	3244	320.00
Flower crops				
1	Mullai	59	118	20.00
2	Jasmine	225	450	20.00
3	Marigold	17	510	300.00
Spices				
1	Chilli	24	432	180.00
Plantation crops				
1	Cashew	1491	3728	30.00
2	Coconut	3421	34210	100.00

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
January	11.5	-	-	-
February	0.3	-	-	-
March	0.0	-	-	-
April	7.2	-	-	-
May	29.2	-	-	-

June	40.5	-	-	-
July	215.8	-	-	-
August	50.6	-	-	-
September	126.0	-	-	-
October	19.8	-	-	-
November	248.3	-	-	-
December	780.2	-	-	-
Total	***1529.4***	-	-	-

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2020)

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

Category	Area	Production	Productivity
Fish			
Marine	-	**85860 tons**	
Inland	**1951 ha**	**18648 tons**	
Shrimp	**1565 ha**	**17428 tons**	

2.7. Details of Adopted Villages (2020)

S. No.	**Taluk/ Mandal**	**Name of the block**	**Name of cluster villages**	**Year of adoption**	**Major crops & Enterprises**	**Major problems identifies in each crop/enterprise**	**Identified Thrust Areas**
KVK adopted villages							
	Tranqubar	Sembanarkovil	Keelaiyur	2011	Rice, Pulses, Vegetables, Banana, Forestry	Panama wilt (*Fusarium oxysporum* f.sp. *cubense*) is a serious problem in banana growing areas causing heavy yield losses.	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice ICM, INM and

							IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization
	Vetharanyam	Vetharanyam	Pushbavanam	2013	Rice, vegetables and Ground Nut, coconut, Flowers, Forestry, Livestock and fish.	Incidence of hoppers during flowering season Low yield and reduce market value Economic loss to the farmers. Retarded growth rate. Kid mortality.	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS and Livelihood management under IFS Fish culture under IFS Value addition under EDP
	Vetharanyam	Vetharanyam	Ayakkarapulam	2017	Rice, vegetables and Ground Nut, Coconut, Mango Flowers, Forestry, Livestock and fish.	High J. quail chicks mortality Increased demand for J. quail meat.	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut

							ICM and IPDM for yield maximization Livestock production under IFS and Livelihood management under IFS Fish culture under IFS Value addition under EDP
	Vetharanyam	Vetharanyam	Kuravappulam	2017	Vegetables and Ground Nut, Coconut, Mango Flowers, Forestry, Livestock and fish.	Unawareness of dairy management. Lack of knowledge in poultry production.	ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS and Livelihood management under IFS Fish culture under IFS Value addition under EDP
	Vetharanyam	Thalainayar	Vellappallam	2013	Ground Nut, Vegetables, Mango, Coconut, Livestock and fish	Severe Pest and disease incidence in Groundnut	ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS and Livelihood management under IFS Fish culture under IFS Value addition under EDP
	Vetharanyam	Thalainayar	Mundram Sethi	2019	Rice, Pulses	Yield reduction due to salinity Intrusion of saline water	ICM, INM and IPDM for Rice, Increasing the productivity of

							Rice and Pulses. Ecological Pest management in rice
	Vetharanyam	Thalainayar	Vettaikaran Iruppu	2014	Ground Nut, Vegetables, Mango, Coconut, Livestock and fish	Yield loss (17 %) due to high pest and diseases Incidence in private hybrid in an area of 30 ha among 80 farmers	ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS and Livelihood management under IFS Fish culture under IFS
	Vetharanyam	Thalainayar	Naluvethapathy	2018	Rice, vegetables and Ground Nut, Coconut, Flowers, Forestry, Livestock and fish.	Retarded growth rate. Kid mortality.	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS and Livelihood management under IFS Fish culture under IFS Value addition under EDP
	Vetharanyam	Thalainayar	Kovilpathu	2013	Vegetables and Ground Nut, Coconut,	Groundnut is extensively cultivated in both rainfed as	ICM, INM and IPDM for vegetable crops and yield maximization

					Flowers, Forestry, Livestock and fish.	well as irrigated conditions. The major problem of the district is intermittent dry spells and lack of knowledge in high yielding varieties.	ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS
	Thirukuvalai	Keelaiyur	Kameshwaram	2011	Ground Nut, Vegetables, Mango, Coconut, Livestock and fish	Unawareness of Newly released hybrids.	ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS
	Nagapattinam	Nagapattinam	Paravai	2019	Vegetables, Mango, Live stock and Fish	High J. quail chicks mortality Increased demand for J. quail meat. High cost of commercial growth enhancer. High cost of commercial probiotics to control the disease.	ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS
	Nagapattinam	Nagapattinam	North Poigai Nallur	2011	Vegetables, Mango and Coconut	Lack of awareness on new variety Low yield & Susceptible to Pest and diseases in existing local varieties.	ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS

	Nagapattinam	Nagapattinam	Akkaraipettai	2015	Fisheries	Lack of awareness of value added fishery products. Lack of knowledge of different method of Prawn pickle preparation. Low income of women and rural youth entrepreneurs.	Livestock production under IFS and Livelihood management under IFS Fish culture under IFS Value addition under EDP
	Nagapattinam	Nagapattinam	Keechankuppam	2019	Banana, Fisheries	Lack of awareness of value added fishery products. Lack of knowledge of different method of Prawn pickle preparation. Low income of women and rural youth entrepreneurs.	ICM, INM and IPDM for vegetable and fruit crops and yield maximization Livestock production under IFS and Livelihood management under IFS Fish culture under IFS Value addition under EDP
	Nagapattinam	Thirumarugal	Melapoothanur	2009	Rice, Pulses and Cotton Livestock	Unawareness of newly released variety. Lack of knowledge on eco friendly IPM in cotton.	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization
	Kilvelur	Kilvelur	Othiyathur	2011	Rice, Pulses and Cotton	Unawareness newly released Black gram variety. Low income for monoculture.	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses.

						Long culture duration. Asian seabass can be cultured using only live feed. Cannibalistic behaviour in murrel leads to low survival rate	Ecological Pest management in rice ICM and IPDM for yield maximization
	Kilvelur	Kilvelur	Sigar	2019	Rice, Pulses and Inland Fisheries	Asian seabass can be cultured using only live feed	Livestock production under IFS and Livelihood management under IFS Fish culture under IFS Value addition under EDP
	Kilvelur	Kilvelur	Killikudi	2019	Rice, Pulses	Unawareness of IPM practices in Paddy	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice
DFI Villages							
	Kilvelur	Kilvelur	Agarakadambanur	2006	Rice, Pulses, Vegetable, Livestock and fish	Unawareness newly released Green gram variety. Low income for monoculture. Long culture duration. Asian seabass can be cultured using only live feed. Cannibalistic behaviour in murrel leads to low survival rate	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice ICM, INM and IPDM for vegetable crops and yield maximization ICM, INM and IPDM for Mango and Coconut ICM and IPDM for yield maximization Livestock production under IFS and Livelihood management under IFS Fish culture

							under IFS Value addition under EDP
	Nagapattinam	Nagapattinam	Ponveli	2015	Rice, Pulses	Lack of knowledge and non utilization of new high yielding Green gram varieties. Low yielding existing varieties.	ICM, INM and IPDM for Rice, Increasing the productivity of Rice and Pulses. Ecological Pest management in rice

2.8. Priority/thrust areas

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

3. Salient Achievements

S.No	Activity	Target	Achievement
1.	**Technologies Assessed and refined(No.)**	**14**	**9**
2.	**On-farm trials conducted (No.)**	**14**	**9**
3.	**Frontline demonstrations conducted (No.)**	**20**	**18**
4.	**Farmers trained (in Lakh)**	**.02060**	**0.03715**
5.	**Extension Personnel trained (No.)**	**400**	**168**
6.	**Participants in extension activities (in Lakh)**	**13300**	**0.67798**
7.	**Production and distribution of Seed (in Quintal)**	**290**	**13.65**
8.	**Planting material produced and distributed (in Lakh)**	**0.12400**	**0.03593**
9.	**Bio products (kg)**	**2000**	**1234**
10.	**Livestock and finger lings produced and distributed (in Lakh)**	**0.00300**	**0.01434**
11.	**Soil samples tested by Mini Soil Testing Kit (No)**	**300**	**135**
12.	**Soil samples tested by Traditional Laboratory (No)**	**-**	**-**
13.	**Water samples tested (No.)**	**200**	**42**
14.	**Mobile agro-advisory provided to farmers (No.)**	**4250**	**17648**
15.	**No.of Soil Health Cards issued by Mini Soil Testing Kits (No.)**	**177**	
16.	**No.of Soil Health Cards issued by Traditional Laboratory (No.)**	**-**	**-**

Give Salient Achievements by KVK during the year in bullet points:

Demonstration Unit Developed during 2020

1. Japanese Quail production unit
2. Bee keeping unit
3. Fodder Production
5. Dairy Unit
6. Duckery Unit.

7. Poultry unit.
8. Egg Incubator
9. Ornamental Fish rearing unit
10. Goat farming unit.

Important Programme Organized 2020

SMART- Programme to the farm women at milk procurement center and Training on Livestock management during COVID 19:

SMART- Programme to the farm women at milk procurement center and Training on Livestock management during COVID 19 conducted at Sangamangalam, Nagapattinam Dt. on 01:05:2020. Every batch consists of 6 farmers/ batch. All the farm womens were allowed with strict Sanitary, Social distancing- 6ft & precautionary measures. Face mask and hand sanitizer were given to the participants. Event coordinated by SOS International NGO. Precautionary measures at different levels were explained by live YouTube Channel by Animal Husbandry Scientist- KVK, Nagapattinam. 30 Nos. of farmers were participated.

SMART- COVID19 -Lockdown guidance Programme to SHG women at milk collection point.

SMART- COVID19 -Lockdown guidance Programme to SHG women at milk collection point conducted at Paalaiyur on 02:05:2020. 30 Nos. of farmers were participated: Every batch consists of 8 farmers/ batch. All the farm womens were allowed with strict Sanitary, Social distancing- 6ft & precautionary measures. Face mask and hand sanitizer were given to the participants. Event coordination by SOS International NGO. SMART guidance - Precautionary measures at different levels were explained by live YouTube Channel by Animal Husbandry Scientist- KVK, Nagapattinam.

Krishi Jagran Facebook Live Programme on summer management in Livestock:

Krishi Jagran Facebook Live Programme on Summer management in Livestock conducted on 03.05.2020. Technical inputs given are, Feeding management vs Heat stress, Housing management vs Heat stress, Watering management vs Heat stress, Other managements vs Heat stress, Impact of heat stress on animal health and production, What are the strategies to overcome heat stress and What to feed and what not to feed during summer. 2500 No of farmers watched the programme.

SMART- COVID19 - Online video classes on Summer Management in Livestock and Lockdown guidance Programme to women farmer at milk collection point.

SMART- COVID19 - Online video classes on Summer Management in Livestock and Lockdown guidance Programme to women farmer* at milk collection point at Pappakovil on 05.05.2020. In this programme 32 Nos. of farmers were participated: Every batch consists of 8 farmers/ batch. All the farm women were allowed with strict Sanitary, Social distancing- 6ft & precautionary measures. Face mask and hand sanitizer were given to the participants. Event coordinated by SOS International NGO. Precautionary measures at different levels were explained by live YouTube Channel by Animal Husbandry Scientist- KVK, Nagapattinam.

World Environment day 2020:

Krishi Vigyan Kendra, Sikkal, Nagapattinam organized the World Environment Day on 05.06.2020 at KVK, Sikkal. Dr. A. Gopalakannan, Programme Coordinator, KVK, Sikkal has delivered presidential address. In this Programme, 100 nos. of Tree saplings were distributed to farmers. Mr. Ragu, SMS (Horticulture) has welcomed the gathering. Staff members of KVK was arranged the Programme in successful manner. 25 nos farmers were participated in this programme.

National Fish Farmers' Day celebration Report

ICAR-KVK, Sikkal celebrated the National Fish Farmers' Day on 10th July 2020 with the fish farmers at Sigar village, Kizhvelur Taluk, Nagapattinam District to commemorate the epoch making innovation in the field of induced breeding of Indian Major carps by the renowned scientist Dr. H.L. Chaudhury on this day in 1957. Mr. E. Hino Fernando, SMS (Fisheries Extension) welcomed the fish farmers for the programme and delivered a talk on importance of remembering this day to the fish farmers. Dr. A. Gopalakannan, Programme Coordinator briefed about the activities and initiatives taken by KVK to encourage fish culture activities in the district by speaking on various fish culture technologies which uses minimal water source. Dr. Kalidoss, a progressive fish farmer in the village shared his experience about successes he has achieved in fish culture business. Dr. A. Mathivanan, SMS (Fish Proc Tech) delivered a talk on Fish processing methods. Around 15 farmers were participated.

Capacity building of Farmers/ Village Level Functionaries on 'Disaster management and drought mitigation measures'

Training programme for Capacity building of Farmers/ Village Level Functionaries on 'Disaster management and drought mitigation measures' was organized in collaboration with TNAU and Department of Revenue and Disaster Management, ICAR- KVK, Nagapattinam on 24.09.2020. The objective of the training programme is to delineate and enrich knowledge on drought management and mitigation measures to the progressive farmers and field level officers Agrl. Department, Nagapattinam. The training programme was inaugurated by Mr.P.Kalyanasundaram, JDA, Nagapattinam. Dr.V.Ambedgar, Director, TRRI, Aduthurai as chief guest and delivered special address in the program. Dr.A.Gopalakannan, Programme Coordinator, KVK, Sikkal welcomed the participants and given a prelude about the importance of the program and effective utilization of water in fish culture. Dr. R. Mohan, Professor (Agronomy), PAJANCOA & RI, Karaikal delivered 'On farm water harvesting practices and conversion of failed borewells and open wells in agricultural fields as recharge structures' in the first session of the training program. Lecture on Drought mitigation techniques during cropping season was handled by Dr.R.Marimuthu, Professor and Head, Coconut Research Station, Veppankulam. Scientists from Tamil Nadu Rice Research Institute, Aduthurai Dr. S. Elamathi (Agronomy) and Dr. K. Chitra (Plant Pathology) handled INM for enhancing soil fertility and crop yields under SRI in water limited conditions and Agro ecosystem based pest and disease management in Rice sessions respectively. The KVK Subject Matter Specialist, Dr.V.Kannan (Agronomy) handled Bio priming methods and seed hardening techniques. Mr.K.Ragu, SMS (Horticulture) demonstrated the application of PPFM, Mulching, Coir pith and Hydrogel to the participants. Totally 30 nos. of participants were attended and benefitted.

Special Training Programme on **POSHAN MAAH-Nutri Garden Programme:**

Special Training Programme on POSHAN MAAH-Nutri Garden Programme was conducted on 17.09.2020 at ICAR-KVK, Nagapattinam. 42 Anganwadi Workers were participated. Thasildhar, Nagapattinam, Professor, College of Fisheries Engineering, Nagapattinam, Field Officer, IFFCO were participated. In the exhibition, display of Protein, Carbohydrates, Vitamins & Mineral rich Cereals, Pulses, Fruits, Vegetables and Value added fishery products were carried out. Exposure visit was arranged to Nutri-garden at KVK. Training on roof top gardening and nutri kitchen was given. 47 nos. Seeds kit was distributed.

Mahila Kisan Diwas Programme:

Mahila Kisan Diwas programme conducted on 15.10.2020 at KVK, Sikkal. In this programme, Mr.P. Kalyanasundaram, Joint Director of Agriculture emphasized about forming Farmer interest

women through mushroom group among women entrepreneurs and livelihood improvement of cultivation. Mr. S. Paneerselvam, Deputy Director of Agriculture delivered a talk on advantages of organic farming which is useful for longterm sustainaibility of the resources. Around 35 farm womens from different blocks of Nagapattinam districts participated in the programme. Elocution, drawing and Essay competitions on various topics were conducted and prices distributed to the winners. .During the programme, exhibitions were conducted

Tree Plantation Drive:

Tree Plantation Drive was organized on the occasion of Birth anniversary of Mahatma Gandhi at ICAR-KVK, TNJFU, Nagapattinam on 2nd October 2020. In this programme, Six nos. of farmers and Sataff of KVK were Participated. Mrs. Revathi, Director, INSPIRE NGO, Nagapattinam delivered spcial lecture. Papaya, Moringa plants were planted as a token of commitment to healthy nutrition practices at in front of the Office and Nutri-garden of KVK.

World Soil Day Celebration:

World Soil Day Program was organised in coordination with Department of Agriculture, Nagapattinam at KVK premises on 05.12.2020. The Program was headed by Mr.S. Paneerselvam, DDA (GOI) Agriculture Nagapattinam. Mr.E.Hino Fernando SMS (FE) Programme Coordinator i/c, welcomed the gathering and briefed the importance of celebrating soil day. The DDH, Nagapattinam delivered the special address noting soil is a wealth of all. lecture on Inclusion of Animals in IFS for soil health was delivered by Dr. S. Muthukumar SMS (AH). Soil health importance, SHC based fertilizer application, Biofertilizers and Green leaf manures for soil health lecture was given by Dr.V.Kannan SMS (Agronomy). Mr.K.Ragu SMS (Hort) delivered the importance of organic vegetable production. At the end of the programme, the soil health cards were issued to the farmers. 142 nos. of farmers were participated.

National Farmers Day

National Farmers Day was celebrated on 23.12.2020 at KVK, Sikkal. The Program was headed by Program Coordinator KVK Sikkal. Mr.K.Ragu SMS Horticulture welcomed the gathering and briefed the importance of national farmers day. Dr.S.Muthukumar SMS Animal Science delivered the special address on Enterpreneurship development in animal husbandry. Dr.V.Kannan SMS(Agronomy) delivered the technical session on Agriculture schemes and importance of adopting new technologies in agriculture. 30 nos. of farmers were participated.

Safe handling of Pesticides:

Safe handling of Pesticides programme was conducted on 23.12.2020 at KVK, Sikkal through webinar. Program was organised in coordination with NIPHM, Hyderabad. Virtual training sessions from NIPHM, Hyderabad was given to participants on Safe use of pesticides and Safe handling of pesticide and containers by Er.Udyabanu, Scientific officer, NIPHM, Hyderabad. Training lectures given from KVK on Safety measures during pesticidal spray by Mr.Ragu SMS(Horticulture). Pesticide Use Efficiency and Importance of Adjuvants by Dr.V.Kannan, SMS(Agronomy). 32 nos. of participants were attended.

Awareness programme organized during 2020

S. No.	Title	Vanue & date	Activities	Beneficiary	No. of Participants
1	International potato conference	KVK, SIKKL, 28.01.2020	seminar	Farmers, students and staff	85

2	Soil Health Awareness programme	Pogai nallur, 16.02.2020	seminar	Farmers and extn. Personnel	60
3	International Womens Day	KVK, SIKKL 08.03.2020	seminar	Women farmers	40
4	Awareness in milk collection point during COVID 19	Palaiyur 1.05.2020 and 02.05.2020	Hygienic handling of milk	SHG Women	30
5	Summer management in livestock	KVK, Sikkal 05.05.2020	Training	Farmers	32
6	World environment day	KVK, Sikkal 05.06.2020	Tree plantation drive	Farmers and Staff	25
7	National Fish farmers day	Sigar, 10.07.2020	Seminar	Fish farmers	15
8	Sadh Bavana Diwas Day	20.08.2020	Seminar	Farmers	30
9	Disaster management and drought mitigation measures	KVK,Sikkal 24.09.2020	Seminar cum training	Farmers and AAO	30
10	Poshan Maah – Nutri Garden	KVK,Sikkal 17.09.2020	Seminar cum training	Anganwadi Workers	46
11	Makila Kisan diwas	KVK, Sikkal 15.10.2020	Speech competition	Women farmers	35
12	Birth Anniversary of Gandhi	KVK, Sikkal 02.10.2020	Tree plantation at KVK	Farmers and Staff	19
13	World Fisheries day	00.11.2020	Seminar cum training	Fish Farmers	34
14	World Soil Day	KVK, Sikkal 05.12.2020	Seminar cum training	Farmers	162
15	Poshan Maah – Nutri Garden	KVK,Sikkal 06.12.2020	Exhibition and training	SHG women	29
16	National farmers day	KVK, Sikkal 23.12.2020	Seminar cum webcasting	Farmers	30

4. TECHNICAL ACHIEVEMENTS

Details of target and achievements of mandatory activities by KVK during 2020

OFT (Technology Assessment)

No. of OFTs		Number of technologies		Number of locations (Villages)		Total no. of Trials / Replications / Beneficiaries	
Targets	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
14	9	15	18	14	9	67	41

FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers / Beneficiaries / Replications	
Targets	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
20	18	46.4	44.4	142	117

Training (including sponsored, vocational and other trainings carried out)

Number of Courses			Number of Participants	
Clientele	**Targets**	**Achievement**	**Targets**	**Achievement**

Farmers and Farm Women	**74**	**71**	**2250**	**2812**
Rural youth	**17**	**11**	**470**	**414**
Extn.Functionaries	**8**	**7**	**400**	244

Extension Activities

Number of activities		**Number of participants**	
Targets	**Achievement**	**Targets**	**Achievement**
952	1854	13300	67798

Seed Production (q)

Target	**Achievement**	**Distributed to no. of farmers**
290	13.65	24

Planting material (Nos.)

Target	**Achievement**	**Distributed to no. of farmers**
12400	3593	83

Livestock strains (Nos.)

Target	**Achievement**	**Distributed to no. of farmers**
300	283	108

Technology Assessments (OFTs) in Detail

OFT1 : Assessment on IPM of Fall Army Worm *Spodoptera fugiperda*) on Maize

1. Thematic area: IPM
2. Title: Assessment on IPM of Fall Army Worm *Spodoptera fugiperda*) on Maize
3. Scientists involved: Dr. K.Chandrasekar, SMS,(Plant Protection)
4. Details of farming situation:

Irrigated Dry Crop cultivated in May is main season for cultivation. OFT were implemented at Kovilpathu village of Vedharanyam Block. Soil type is Alluvial and Soil texture is Sandy loam. The amount of rainfall received is 375 mm with rainy days during crop season.

5. Problem definition / description:

Unawareness of IPM for Fall Army Worm and Sever incidence and crop loss.

6. Technology Assessed:

TO 1 - Farmer's practice
TO 2 - TO2: Integrated Pest Management (IPM) Module.

7. Critical inputs given:

Seed treatment chemical	40 ml	200
Metarhizium anisopliae	1 lt	600
Pheromone traps	4 nos	400
Fodder seeds	100g	50
Neem soap	1 Kg	200
Need based insecticides	-	1000

8. Results:

Name of	**Farming**	**No. of**	**Area**	**Yield (q/ha)**	**% Increase**

Hybrid	situation	Trail	(ha)	Technology	Check	
ADHI	Irrigated	05	2	51.78	39.46	31.0

Economics of Technology Assessment (Rs./ha)				Economics of check (Rs./ha)			
GC	GR	NR	BCR	GC	GR	NR	BCR
43212	88029.4	44817.4	2.04	46934	67082	20148	1.43

9. Constraints faced: Nil
10. Feedback of the farmers involved: Nil

11. Feed back to the scientist who developed the technology:
- Spraying of *Metarhizium anisopliae,* endomopathogenic nematode and installation of pheromone trap.
- Yield 8030 kg (control 6500 kg)
- Net return Rs/Ha: 62450.
- BCR: 2.04

OFT 2 : Assessment of drought tolerant groundnut varieties under rain fed 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
4. Details of farming situation:

Groundnut (*Arachishypogaea* 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:

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.

9. Constraints faced: Nil

10. 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.

11. 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 3: 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 Naluvedhapathy 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 (33.31µ 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:

Performance of the technology

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

Technology Option	*No of fruits yield per plant*	*Percentage of pest and disease incidence (%)*
TO 1 (Mahyco-10)	*20*	*24*
TO 2 (Co 4)	*29*	*15*
TO 3 (Arka Nikita)	*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.

9. 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.

10. 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.

11. 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 4: **Assessment of Management of Rugose whitefly Coconut**

1. Thematic area: IPM

2. Title: Assessment of Management of Rugose whitefly Coconut

3. Scientists involved: Dr. K.Chandrasekar, SMS (Plant Protection)

4. Details of farming situation:

Irrigated condition with Sandy soil at Coastal alluvium. OFT were implemented at Kovilpathu and Vellapallam village of Thalainayar block . The amount of rainfall received is 375 mm with rainy days during crop season.

5. Problem definition / description:

Rugose spiraling whitefly incidence reduces the photosynthetic activity & yield .

6. Technology Assessed:

Source of technology TNAU/NIPHM

TO 1 – Farmers' Practice – FYM @ Application of Insecticides

TO 2:

- Yellow sticky traps to monitor the adult movement
- Release of *Chrysopa zastrowi silemmi*
- Predator at 15 days interval *Encarsia guadeloupae* parasitoid
- Foliar application of *Isaria fumosorosea* ($1x10^9$ spores/ml)
- Intermittent water spray
- Spraying neem based formulations(Azadirachitin 1% @ 2 ml/lt) along with wetting agent or detergent powder @ 10gms/lt at 20 days interval.
- Spraying of 1% starch solution for sooty mould
- Avoid spraying of chemical insecticidesTO2: Integrated Pest Management (IPM) Module.
- Azadirachitin 1% - Farmer contribution

7. Critical inputs given:

Encarsia guadeloupae Parasitoid	2 pkts
chrysoperla zastrowi silemmi	400 nos/ac
Yellow sticky traps(3 x1.5 ft)	10 nos/ac
Foliar application of *Isaria fumosorosea* ($1x10^9$) @ 5g/lt	2 kgs

8. Results:

Name of the technology	**Variety**	**Farming situation**			**Yield (q/ha)**		**% Increase**
			No. of Trial	**Area (ha)**	Technology	Check	
Assessment of management of Rugose whitefly in coconut.	ECT	Irrigated	05	2	116	65	78

Economics of demonstration (Rs./ha)				**Economics of check (Rs./ha)**			
Gross Cost	**Gross Return**	**Net Return**	**BCR**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR**
64535	263900	199365	4.08	48555	147875	99320	3.04

9. Constraints faced: Nil

10. Feedback of the farmers involved: Nil

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

- Spraying of Isaria fumosorosea, infestation of RWF in coconut was ranging from 0 – 0.82, in control plot was 1.86 – 2.48.
- Infestation index was 1.24 in demo plot and 1.92 in control plot.
- Sooty mould encrustation was 2-3 fronds and in Control plot was 4-6 fronds

OFT5: 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

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

9.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 earthern 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.

10. 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

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

Frontline Demonstrations in Detail

Details of FLDs

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	IPDM	Eco friendly pest and disease management in Thaladi (Rabi) paddy	Rabi 2019	ICAR	4 ha	4 ha	3	7	10	-
2	Paddy	IDM	IDM strategies for False smut in Rice	Rabi 2019	ICAR	4 ha	4 ha	3	7	10	-
3	Black gram	ICM	Demonstration of ICM in Black gram VBN 8 in Nagapattinam Dt.	Rabi 2019	ICAR	4	4	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	Brinjal	IPM	Demonstration of IPM strategies for	Rabi 2019	ICAR	4.0 ha	4.0 ha	2	8	10	-

			Brinjal borers								
7	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		
				N	P	K
Paddy	Rabi 2019	Irrigated	Alluvial	L	M	H
Paddy	Rabi 2019	Irrigated	Alluvial	L	M	H
Black gram	Rabi 2019	Irrigated	Clay loam	L	M	H
Cotton	Rabi 2019	Irrigated	Alluvial	L	M	H
Coconut	Rabi 2019	Irrigated	Coastal alluvium	L	M	H
Jasmine	Rabi 2019	Irrigated	Coastal alluvium	L	M	H

Technical Feedback on the demonstrated technologies

Demonstration of ICM in Black gram VBN 8 in Nagapattinam dt.

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 varities
2	Low incidence in Pest and disease

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
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) Coconut (12.01.2019)	30 150 140 30 55	-
3	Media coverage	3	Maize (20.09.2019) Coconut (12.01.2019)	-	-
4	Training for extension functionaries	10 Zonal Meeting	Zonal meet	-	-

g. Performance of Frontline demonstrations

Frontline demonstrations on crops

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										
Rice	IPM	Eco friendly pest and disease management in Thaladi (Rabi) paddy	BPT 5204	-	10	4.0	47	44.8	45.7	44.2	3	35500	102050	66550	2.87	36800	103100	66300	2.8
Rice	IDM	IDM strategies for False smut in Rice	BPT 5204	-	10	4.0	45	43.4	44.2	30.8	44	33800	80600	46800	2.38	38700	72900	34200	1.88
Pulses	ICM	ICM in Black gram VBN 8	VBN 8	ADT 3	10	4	6.5	5.3	5.9	5.1	16	20825	47200	26375	2.27	20825	40800	19975	1.96
Cotton	IPM	Eco friendly IPM modules for major sucking pest in cotton	RCH 659		10	4	35.5	26.9	31.2	20.9	49	61644	151247	89603	2.45	77481	101244	23763	1.31
Coconut	IPM	Eco-friendly IPM strategies for major pests in coconut	ECT	ECT	20 trees/ demo	4	70	68	69	48	44	55250	105253	50003	1.90	44070	65736	21666	1.49
Brinjal	IPM	IPM strategies for Brinjal borers	Local	-	10	4	158.75	132.15	145.4	84.26	73	120580	459340	338761	3.81	111150	269696	158546	2.43
Flowers	IPM	Eco friendly IPM strategies for major pests in Jasmine	Local	-	10	4.0	21	18.2	19.6	12.48	57	2,00,000	5,888000	3,88000	2.94	1,50000	2,50000	1,00000	1.67

ii) Frontline demonstrations on 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	INM	Hydroponics fodder cultivation technology to rural farmer	5	-	10 lit milk	7 lit milk	30%	1200	840	11320	30000	18680	2.65	9160	21000	11840	2.29
Poultry	Production and Management	Improved Aseel performance under back yard system	5	30	1.8 kg wt 150 eggs/20-40 weeks	1.2 kg wt 45 eggs/20-40 weeks	33.3	96.33 % Survivability	96.0 % Survivability	3150	6874	3724	2.18	2550	5250	2700	2.05

FLDs conducted with the funding of other sources including CFLD/ATMA/NABARD/ other ICAR institutes etc:

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
Greeen 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

Technology Week Celebrations: Nil

Training/workshops/seminars etc. attended by KVK staff

Name of the staff	Title	Dates	Duration	Organized by
Mr.K.Ragu, SMS(Horticulture)	ATMA-SREP meeting	27.01.2020 to 28.01.2020	Two days	State Government
Dr.A.Gopalakannan, Programme Coordinator	International Convention on Perspectives of face contemporary challenges in Agriculture Development	18.02.2020 to 19.02.2020	Two days	ICAR
Mr.E.Hino Fernando, SMS(Fisheries Extension)	International Convention on Perspectives of face contemporary challenges in Agriculture Development	18.02.2020 to 19.02.2020	Two days	ICAR
Mr.E.Hino Fernando, SMS(Fisheries Extension)	Psychology of Learning	01.05.2020	One day	NAARM
Dr.A.Mathivanan, SMS(FPT)	Quinquennial Review meeting	12.08.202 to 14.08.2020	Three days	ICAR-ATARI, Hyd.
Dr.A.Mathivanan, SMS(FPT)	Engineered A New Age farming Transformation for women farmers.	15.10.2020	One day	ICAR-ATARI, Pune

Awards/rewards received by KVK and staff

Name of Staff	Item of Recognition	Year	Awarding Organization National / International/ Professional; Society
Dr.A.Gopalakannan, Programme Coordinator	Best Worker	2020	TNJFU
Dr.K.Chandrasekar, SMS(Plant Protection)	Best Worker	2020	TNJFU
Mr.J.Sathishkumar, Driver	Best Worker	2020	TNJFU

Details of sponsored projects/programmes implemented by KVK

S.No	Title of the programme / project	Sponsoring agency	Objectives	Duration	Amount (Rs)
1	Disaster management and drought mitigation measures	NADP	Awareness Creation to farmers and Extn. Officials	One day	Rs. 21340

2	Skill Development training on Poultry rearing other than chicken	NABARD	EDP among Women farmers	7 days	Rs. 6,20,000
3	Skill Development training on Silk worm Rearing	NABARD	Awareness Creation to Farmers	3 days	Rs.95,400
4	Integrated Development of Small Ruminants and Rabbits	SAMETI	Training Farmers-30	7 days	Rs. 42000
5	Training on Organic Farming-ICM in Rice under SCSP	IIOR, Hyderabad	Awareness Creation to Farmers and farm women	2 days	Rs. 14,00,000

Success stories:

1. Rice variety VGD 1 a boon to Nagapattinam farmers

Brief note on Intervention/ support by the KVK to the farmer		Front line Demonstration on popularization of VGD 1 was conducted during 2019-20 at farmer's field. VGD 1 is an ultra fine, export quality. briyani suitable rice introduced to the district through our KVK. The Variety made notable remarks in farmers field with good marketable price.
Author : (Name & Designation of the Scientist documented the success story)		Dr. V. KANNAN SMS (Agronomy) KVK, TNJFU, Nagapattinam
1.	**Name of the Farmer**	**Mr. K. Sambandam**
2.	Marital Status & Gender	Married
3.	Age (in years)	64
4.	i. Postal address:	1/135 Nadu theru, Perunthottam Post Sirkali – 609 106
	ii. Mobile No.	9487883651
	iii. e mail id (if any)	ksnavakaviyam@gmail.com
5.	Educational Qualification	SSLC
6.	Land (ac.)	10 ac
7.	Irrigation source	Canal
8.	Farm Machinery	---
9.	Crops grown (in ac.)	Rice 10 Pulses 10
10.	Others - Dairy, Poultry, fisheries etc., (Specify units)	Dairy – 2 cows
11.	**Name / Title of the Venture / Innovation / Success**	**Rice variety -VGD 1 a boon to Nagapattinam farmers**
	Innovative technologies / successful practices/ interventions adopted, modified or developed (if any) (Mention	Rice Variety VGD 1 was cultivated by the farmer with a recommended best management practices.

	in brief)	
12.	**Economics**	
i.	Income	Rs. 86,400/ac
ii.	Gross and Net income	Rs. 86,400/ac and Rs. 63,100/ac
iii.	Cost-benefit ratio	3.71
iv.	Employment generated	52 man days
13.	Other benefits accrued (resources/inputs saved, reduction of drudgery, improvement management practices, environment protection etc.,)	Inputs saved
14.	Spread of innovation, skills among fellow farmers / No. of farmers trained/ benefitted by the farmers	VGD 1 Variety seeds were supplied to 60 number of famers
15.	Media coverage like Success stories / feature articles /documentary / CDs etc.	Nil
16.	Recognition received as certificates, medals and awards, etc. at Block/ State / National Level)	Nil
17.	Any other relevant information (if any)	-



2. Scientific Rearing of Japanese quail under EDP:

Brief note on Intervention/ support by the KVK to the farmer		Demonstration was conducted on **Scientific Rearing of Japanese quail under EDP** at farmers holdings. Poultry rearing has important role in rural economy. Rural women empowerment lies on free flowing of money in their hand. Among poultry, Japanese quail which gives money to the farmer on monthly basis. Japanese quails are reared for only 4 to 5 weeks of time after which they ready for marketing. Maintenance of Japanese quail is easier than any other livestock rearing. Mortality rate also comparatively minimal. The demand for quail meat and egg is huge in our area. In quail farming no vaccination and deworming is required for Quail unlike other livestock.
Author : (Name & Designation of the Scientist documented the success story)		Dr. S.Muthukumar, SMS (Animal Husbandry), KVK, TNJFU, Nagapattinam
1.	**Name of the Farmer/ Agripreneur**	Mrs. S. Chanthra, W/O: Mr. Sasikumar
2.	Marital Status & Gender	Married
3.	Age (in years)	37 years
4.	i. Postal address:	Marachery, Thirukkuvalai Block,

		Nagapattinam Dt.
	ii. Mobile No.	8300213515
	iii. e mail id (if any)	-
5.	Educational Qualification	SSLC
6.	Land (ac.)	Agriculture labour
7.	Irrigation source	-
8.	Farm Machinery	-
9.	Crops grown (in ac.)	-
10.	**Title of the Success**	**Scientific Rearing of Japanese quail under EDP**
	Innovative technologies / successful practices	There was chick mortality of about 5% after which we intervened and suggested antimicrobial therapy. Forward integration was made by linking with one entrepreneur having small scale hatchery.
11.	**Economics**	
i.	Income	Rs. 20400/yr.
ii.	Gross and Net income	Gross income Rs.4000 and Net Income Rs.1700 (4 weeks period)
iii.	Cost-benefit ratio	1.73
iv.	Employment generated	25 man days
12.	Other benefits accrued	• Fourth week recorded body weight was 240 g. • Average egg weight is around 12-13 g. • Price at which birds were sold: Rs.40/bird • Price at which eggs were sold: Rs.2 /Egg.
13.	Spread of innovation, skills among fellow farmers / No. of farmers trained/ benefitted by the farmers	Japanese quail rearing is getting popular among the farmers of that village and now people are familiar to the taste of meat and egg. More than 50 young entrepreneur from that village inquiring about the business viability and opportunity.

3. GIFT Tilapia Production in Farm Ponds:

Brief note on Intervention/ support by the KVK to the farmer		On Farm Trial was conducted on **GIFT Tilapia Production in Farm Ponds** at 5 nos. of farmers holdings during the year 2018-19 and 2019-20 respectively. Water quality parameters were tested for suitability of water for culture. Bunds were not constructed properly and suggestions were given to make it clear. Advised to clear unwanted bushes and plants in the pond area. Advised to add fertilizer (cow dung) for natural phytoplankton production.
Author : (Name & Designation of the Scientist documented the success story)		Mr. E. Hino Fernando SMS (Fisheries Extension) ICAR-KVK, TNJFU, Nagapattinam Dt.
1.	**Name of the Farmer**	**Mr.G.VenuKalidhas**
2.	Marital Status & Gender	Married
3.	Age (in years)	67 years
4.	i. Postal address:	44, JK lane, Marachery, Thirukuvalai-Tk, Nagapattinam Dt.
	ii. Mobile No.	9840623413
	iii. e mail id (if any)	-
5.	Educational Qualification	B.A. M.Ed.,
6.	Land (ac.)	30 acres
7.	Irrigation source	Canal irrigation.
8.	Farm Machinery	Tractor, Straw baler
9.	Crops grown (in ac.)	Paddy 20 acres, Coconut 5.2 acres. Teak 100 nos. Vengai 100 nos.
10.	Others - Dairy, Poultry, fisheries etc., (Specify units)	Dairy cow- 5 nos. Goat 40 nos., Ducks 75 nos. and Chicken 200 nos.
11.	**Name / Title of the Venture / Innovation / Success**	**GIFT Tilapia Production in Farm Ponds**
	Innovative technologies / successful practices/ interventions adopted, modified or developed (if any) (Mention in brief)	Tilapia culture is best suited for this district. Pre-stocking measures like pond construction, pond preparation, sun drying of pond bottom was carried out. Seeds were stocked in the earthen ponds after fertilization with cow dung. GIFT and Red Tilapia seeds of 1.5 inch size were stocked at 2 Nos./m^2. Feeding trial started from the next day of stocking the seed. Water test was conducted before stocking and once in a month.
12.	**Economics**	
i.	Income	Rs.4,50,000/yr.
ii.	Gross and Net income	Gross income of Rs.192000 and Net Income Rs. 41000/acre/6 month
iii.	Cost-benefit ratio	1.27
iv.	Employment generated	5 labourers /day
13.	Other benefits accrued (resources/inputs saved, reduction of drudgery, improvement management practices, environment protection etc.,)	Fish yield of around 376 kg were harvested. Fishes were marketed as live at the rate of Rs.100/kg. High resistance to diseases compared to carps. Fish farmer is motivated to take up GIFT tilapia as next crop as this technology earns money in a short period (5 months) of time with limited water availability. Palatability of GIFT tilapia as this has good consumer preference.
14.	Spread of innovation, skills among fellow farmers / No. of farmers trained/ benefitted	Farmer advised other fish farmers to take this technology as this has suitability for our district. 100 nos. of farmers were trained.

	by the farmers	




Details of innovative methodology, innovative technology and transfer of Technology developed and used during the year by the KVK:

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

Impact of KVK activities (Not to be restricted for reporting period).

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	Productivity/Yield		Change in Income due to intervention of OFT	
		Before	After	Before	After

	years	Adoption of new technology	Adoption of new technology	Adoption of new technology	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

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

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

Adoption technologies by the farmers 2020

S.No	Name and address of the farmers adopted technology through KVK intervention	Technologies/Enterprises adopted	Annual Income through this intervention	Year of adoption
1	Mr.S.Vetriselvan S/O. Selvaganesan Main Road, Karuvazhakarai, Tranqubar, NagapattinamDt. Mobile No: 6374163046	Poultry	Rs. 50000	April, 2020
2	P.Hariharan, S/O. Pakkirisamy, Palakurichy, Thevur-Post. Kilvelur-TK, Mobile no: 8682025267	Poultry and Rabbit	Rs. 50000	April, 2020
3	R.Selvaraj, S/O Rethinavel, Ayakkaranpulam, Vedharanyam, Nagapattinam Dt. Mobile No: 9786877671	Goat and Poultry	Rs. 50000	April, 2020

Cases of large scale adoption/impact of specific technologies: Nil

Linkages

Functional linkage with different organizations

Name of organization	Nature of linkage
State Dept. of Agriculture	• 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	• 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	• Jointly organized training programmes • Jointly organized animal health camps. • Field diagnostic visit
NABARD	Organizing Farm Science Club and exposure visits.
Local NGOs SWEET, DHANYA, and CCD,	Organizing on/off campus training Programmes and exposure visits, offering need based technical guidance
TNJFU, TNAU, TANUVAS, K VK-Thiruvarur,	Technical consultancy and exchange of SMS during training programmes.
All India Radio, Karaikal,	• 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 of 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.)
Disaster management and drought mitigation measures	**August**	NADP	Rs. 21340
Skill Development training on Poultry rearing other than chicken	**November**	NABARD	Rs. 6,20,000
Skill Development training on Silk worm Rearing	**August**	NABARD	Rs.95,400
Integrated Development of Small Ruminants and Rabbits	**September**	SAMETI	Rs. 42000
Training on Organic Farming-ICM in Rice under SCSP	**December**	IIOR, Hyderabad	Rs. 14,00,000

Important Visitors to KVKs during 2020 (with photographs)

S.No	Name of the Visitors	Date	Remarks
1	Dr.G.Sugumar, Ph.D. Vice Chancellor, TNJFU, Nagapattinam	**13.10.2020**	Fish culture in Rice field may be popularized
2	**Mr.Praveen Nair, IAS, District Collector, Nagapattinam Dt.**	**12.09.2020**	Coccinia vegetable may be popularized entire district

Sd/-xxx
Programme Coordinator

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