ANNUAL REPORT 2019-20
(April 2019-March 2020)

APR SUMMARY

Name of the KVK: KVK, CUDDALORE

1. Technology Assessment

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	6	45	45
Livestock	-	-	-
Various enterprises	-	-	-
Total	6	45	45
Technology Refined			
Crops	-	-	-
Livestock	-	-	-
Various enterprises	-	-	-
Total	-	-	-
Grand Total	6	45	45

2. Frontline demonstrations

Details	No. of Farmers/Locations	Area (ha)	Units/Animals
Oilseeds	35	22	-
Pulses	10	4	-
Cereals	40	16	-
Vegetables	20	8	-
Other crops			
Fodder	10	4	-
Waste decomposer	10	4	
Agroforestry	10	4	
Total	135	62	-
Livestock & Fisheries	20	-	-
Other enterprises	10	-	-
Total			
Grand Total	**165**	**62**	**-**

3. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	73	2542	860	3402
Rural youths	23	585	300	885
Extension functionaries	37	1174	638	1812
Sponsored Training	57	995	380	1376
Vocational Training	-	-	-	-

Total	**190**	**5296**	**2178**	**7475**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	406	4482
Other extension activities	-	-
Total	**406**	**4482**

5. Mobile Advisory Services (No. of messages)

Message Type	Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Text only	159	-	-	-	-	51	210
Voice only	-	-	-	-	-	-	-
Voice & Text	-	-	-	-	-	-	-
Total	**59**	**-**	**-**	**-**	**-**	**51**	**210**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	193.25	946250
Planting material (No.)	6743	134245
Bio-Products (kg)	1935	66118
Livestock Production (No.)	3	2050
Fishery production (No.)		

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	403	46200
Water	45	2650
Plant	-	-
Total	**448**	**48850**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	-
2	Conferences	4
3	Meetings	-
4	Trainings for KVK officials	-
5	Visits of KVK officials	5
6	Book published	-
7	Training Manual	8
8	Book chapters	-
9	Research papers	4
10	Lead papers	-
11	Seminar papers	6
12	Extension folder	1
13	Proceedings	1
14	Award & recognition	4
15	On going 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	:	ICAR-Krishi Vigyan Kendra, Cuddalore District
b) Address	:	Krishi Vigyan Kendra Vriddhachalam - 606 001 Cuddalore District Tamil Nadu
c) Landline Phone No.	:	**04143-238353**
d) Fax No.	:	**04143-238353**
e) Official Mobile No.	:	--
f) email ID	:	**kvkvri@tnau.ac.in**

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

a) Name of the Host Organization	:	**Tamil Nadu Agricultural University, Coimbatore**
b) Address	:	**Tamil Nadu Agricultural University, Lawley Road, Coimbatore - 641 003 Tamil Nadu**
c) Landline Phone No.	:	**0422-2431222**
d) Fax No.	:	**0422 - 2431672**
e) Official mobile No.	:	--
f) email ID	:	registrar@tnau.ac.in **www.tnau.ac.in**

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

a) Name	:	**Dr. S.Kannan**
b) Phone – residence	:	**9787976407**
c) Mobile	:	**9842664165**
d) email ID	:	**kvkvri@tnau.ac.in**

1.4. Year of sanction: ICAR - F. No. 22 (17)/83–KVK dt 29.03.1985 of the Deputy Director General (AE), ICAR, New Delhi

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

Sl. No.	Sanctioned post	Name of the incumbent	Designation (eg. SMS)	Discipline (eg. Agronomy)	Edn. Qualification (eg.M.Sc.(Agri)	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.S.Kannan	Associate Professor	Food Science and Nutrition	Ph.D (FSN)	Food Science and Nutrition	Level 13 A4	143600	15.04.2015	Permanent	SC
2	Subject Matter Specialist	Dr.K.Natarajan	Assistant Professor	Seed Science & Technology	Ph.D (SST)	Seed Science & Technology	68900-205500 Level 11	98200	08.04.2015	Permanent	OBC
3	Subject Matter Specialist	Dr.S.Maruthasalam	Assistant Professor	Pl. Pathology	Ph.D (Hort)	Pl. Pathology	68900-205500 Level 11	92600	17.05.2018	Permanent	OBC
4	Subject Matter Specialist	Dr. K.Venkatalakshmi	Assistant Professor	Agronomy	Ph.D (Agronomy)	Agronomy	68900-205500 Level 11	92600	22.04.2013	Permanent	OBC
5	Subject Matter Specialist	Dr. R. Jagadeesan	Assistant Professor	Horticulture	Ph.D (Pathology)	Horticulture	68900-205500 Level 11	98200	12.03.2019	Permanent	OBC
6	Subject Matter Specialist	Tmt. G. Porkodi	Assistant Professor	Soil Science & Agrl.Chemistry	M.Sc (Soil Science)	Soil Science & Agrl.Chemistry	57700-182400 Level 10	63000	08.04.2015	Permanent	SC
7	Subject Matter Specialist	Vacant from 01.04. 2020 before that it was filled by Training Assistant(AEX)									
8	Programme Assistant	Tmt.G. Meenalakshmi	Programme Assistant (Lab Tech.)	Environnent Science	M. Sc (ENS)	Environnent Science	35900-113500 (Level 13)	45400	28.02.2011	Permanent	SC
9	Computer Programmer	Tmt. M.Selvi	Programme Assistant (Computer)	Computer Science	B.Sc(Ag), MCA	Computer Science	35900-113500 (Level 13)	51100	12.04.2018	Permanent	OC

10	Farm Manager	Mr. D.Kumar	Farm Manager	Agronomy	M.Sc. (Agronomy)	Agronomy	35900-113500 (Level 13)	61000	06.06.2007	Permanent	OBC
11	Accountant / Superintendent	Tmt. T.Suganthirani	Superintendent	Higher Secondary	Higher Secondary	Higher Secondary	36900-116600 (Level 18)	52500	12.03.2019	Permanent	SC
12	Stenographer	Mrs. T. Chandirakala	Junior Assistant cum typist	MA, M.Ed	MA.B.Ed	MA.B.Ed	19500-62000 (PB2)	20100	24.01.2018	Permanent	SC
13	Driver	Th. |J. Jayaprakash	Driver	XI	BA	BA	35900-113500 (Level 13)	19500	19.11.2018	Permanent	OBC
14	Driver	Th.S.Arul	Driver cum Mechanic	X	10th	10th	19500-62000 (Level 8)	33200	21.02.2007	Permanent	OBC
15	Supporting staff	Th. A. Deivasigamani	Office Assistant	XII	Degree	Degree	15700-50000 (Level 1)	20500	08.08.2011	Permanant	OBC
16	Supporting staff	Th. P. Narayanasami	PUSM	8th	8th	8th	15700-50000 (Level 1)	29300	01.07.2011	Permanent	OBC

1.6. Total land with KVK (in ha) (Consolidated figure): 20 ha

S. No.	Item	Area (ha)
1	Under Buildings	0.0873
2.	Under Demonstration Units	0.021
3.	Under Crops	16.1
4.	Orchard/Agro-forestry	3.8
5.	Others (specify)	Nil

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	-	-	-	-	-	-	-
2.	Farmers Hostel	-	-	-	-	-	-	-
3.	Staff Quarters (No.)	-	-	-	-	-	-	-
4.	Demonstration Units (add rows if required)	-	-	-	-	-	-	-
	Mushroom Demo Unit	KVK (RF)	October 2018	16	23689			
	Azolla Demo Unit	KVK (RF)	October 2018	4	20000			
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-
9	Shed (Farm equipment)	-	-	-	-	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Mahindra Jeep (TN 66 V0376)	2017	8,34,445	48195	working
Tractor (TN-31 AS 2462)	2011	4,87,500	2019 hr	working
Motor cycle-Hero Honda (TN 31V 4421)	2009	48,255	47340	working

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Digital camera	2016-17	42500	Good
Desktop computers	2016-17	100000	Good
Printer cum Xerox machine	2016-17	60000	Good
Public address system (Portable)	2016-17	30000	Good
Reverse osmosis unit for drinking water	2016-17	25000	Good
Portable memory drive	2016-17	10000	Good
Uninterrupted power system	2016-17	25000	Good
File storage and fixtures	2016-17	50000	Good

1.8. A). Details SAC meeting(s) conducted in the year

Sl.No.	Date	No of Participants	Salient Recommendations
1.	13.02.2020	32	41

Proceedings of 23nd Scientific Advisory Committee Meeting conducted at KVK, Vridhachalam, Cuddalore District

The 23rd Scientific advisory Committee Meeting was held at KVK, Vridhachalam on 13.02.2020 under the Chairmanship of Dr. M. Jawaharlal, the Director of Extension Education, Tamil Nadu Agricultural University, Coimbatore, in the presence of Dr. A.Bhaskaran, Principal Scientist, ATARI, Hyderabad, and Mr.G.R.Murugan, Joint Director of Agriculture, Cuddalore District.

The following members have participated in the Scientific Advisory Committee meeting.

Chairman:

Dr. M. Jawaharlal
Director of Extension Education
Tamil Nadu Agricultural University
Coimbatore -3.

The meeting was commenced with lighting of Kuthuvilakku by the dignitaries. The Programme Coordinator of KVK, Vridhachalam, Dr. S. Kannan welcomed the august

gathering. He presented the action taken report on the recommendations and suggestions made during the 22nd Scientific Advisory Committee meeting. During the meeting the following recommendations were given by the Chairman and members for action plan for forth coming year.

Members:

1. Dr. A.Bhaskaran
   Principal Scientist,
   ICAR-Agricultural Technology Application Research Institute
   Zone X, Hyderabad

2. Dr. A.Mothilal
   Professor and Head
   Regional Research Station
   Vridhachalam

3. Dr. M.Jayachandran
   Professor and Head
   Sugarcane Research Station
   Vridhachalam

4. Dr.M.Senthil Kumar
   Assistant Professor (AEX) & Nodal Officer of KVKs,
   DOEE, TNAU, Coimbatore-3.

5. Mr.G.R.Murugan
   Joint Director of Agriculture
   Cuddalore – 607 001

6. Tmt. J.Bhuvanesvari
   Assistant Director of Horticulture
   Kammapuram

7. P.Jothimani
   Lead district Manager
   Indian Bank
   Cuddalore

8. S.Hariharaputran
   District Development Manager (DDM)
   NABARD
   Cuddalore.

9. Tmt.S.Andal
Protection officer
District Social Welfare Officer
Dept. of Social Welfare
Cuddalore.

10. Mr.N.Elangovan
Joint Director/General Manager
District Industrial Centre
Cuddalore

11. Th.T.Chandrasekaran
Assistant Engineer
Dept. of Agricultural Engineering

12. Mr.P.M.Sundaram
Junior Inspector of Sericulture
Ezhuchatram road
Vazhudhareddy,
Villupuram-605 602

13. Th.E.Kathavarayan
Deputy Director of Fisheries
Cuddalore

14. Mr.M.Arumugam
Forester
Villupuram Range

15. Th. D.Senthil Kumar
Programme Executive
All India Radio
Puducherry

16. R.Ram Prasath
Transmission Executive,
Doordarshan Kendra
Puducherry

17. Dr.R.Ponnambalam
Assistant Director
Dept .of Animal Husbandry
Vridhachalam

SAC Farmer members:

18. Thiru. A.S.V. Velmurugan
    Agaram Alambadi
    Bhuvanagiri-608 702
19. Th.K.Sakthivel
    S/o Sundaramurthy
    Sathukudal
    Vriddhachalam-606 110
20. Tmt. S.Pounambal
    K.Ilamangalam
    Vriddhachalam
21. Tmt. S.Sagunthalai
    W/o Deivanayagam
    Sri Sathamangalam
    Gunamangalam, Srimushnam.

Member Secretary
The Programme Coordinator
Krishi Vigyan Kendra,
Vridhachalam – 606 001
Cuddalore District

The salient achievements of OFTs, FLDs, trainings and other extension activities conducted during the year 2018-19 were presented by the SMS of the KVK.

DEE, TNAU, Coimbatore

1. Promotion of laser irrigation through demonstrations and trainings.
2. Popularize the Agro-forestry crop through trainings and demonstration.
3. Encourage seed production through farmer's participatory mode.

ATARI, Hyderabad

4. Every Subject Matter Specialist should contribute to increase the Revolving fund.
5. Update contact farmers list in m-Kissan portal

Joint Director of Agriculture

6. Create awareness to farmers on micro-irrigation and its maintenance to avoid clogging.
7. Introduce less water requiring crops for Cuddalore farmers.

8. Capacity building trainings related to agricultural technologies (Ex. acid treatment, seed drill, pest and disease management, etc).
9. Providing training on region/block specific crops to the Cuddalore district farmers.
10. Management of Rugose white fly in Coconut through demonstrations and trainings.
11. Production of need-based biocontrol agents in KVK itself for supplying to farmers.
12. Sensitization/training on integrated management practices for paddy false smut and blast.
13. Organize awareness programmes for weed management in direct seeded rice cultivation.
14. Promotion of Integrated Farming System (IFS) through trainings.
15. Arranging exposure visit to learn technologies related to small millets.

Deputy Director of Horticulture, Cuddalore

16. Create awareness on protected cultivation of horticultural crops through trainings in collaboration with State dept. of Horticulture and Plantation crops.
17. Create awareness on high-density planting in cashew through trainings.
18. To conduct trainings on pro-tray seedling production technologies.
19. To impart training on value addition in cashew and jack.

Professor & Head, RRS, Vridhachalam

20. Popularize new groundnut varieties to increase area under cultivation.
21. Popularize new sesame variety VRI-3 for large scale adaption.

Professor & Head, SRS, Cuddalore

22. Create awareness to farmers on post-emergence weed management in groundnut.

Deputy Director, Seeds

23. OFT/FLD to be conducted regarding machine harvest in pulses.

NABARD Bank

24. Trainings on IFS have to be given to the Farmers.
25. Create awareness on Kissan Credit Cards to farmers.
26. Promotion of Farmer Producer Companies (FPOs).
27. Farmers may be encouraged to adapt drip irrigation and other water saving technologies.

28. Demonstration and training on bee keeping and mushroom cultivation to the farmers.

Agricultural Engineering, Vridhachalam

29. Create awareness on water harvesting technologies/structures among farmers.
30. Create awareness on solar drier and solar pumps.
31. To conduct demonstrations on the use of repellants against animal trespassing.
32. Training programmes on the use of agricultural farm implements and machineries.

Department of Fisheries, Parangipettai

33. Popularize the Gift tilapia through trainings and demonstration.
34. KVK to conduct trainings on fish farming and arrange exposure visit to model fish farms in collaboration with fisheries department.

Department of Social Welfare, Cuddalore

35. Popularize alternate crops to maize in Mangalur and Nallur blocks.

AIR, Puducherry

36. Information on trainings conducted by KVK to be communicated to AIR, Puducherry in advance to sensitize farmers about the programmes.

SAC Farmer Member Farmer: Velmurugan

37. Farm implements have to be given to farmers on custom hiring basis.
38. Provide training on millet processing technologies.

SAC Farmer Member Farmer: Sakunthala

39. Suitable programmes may be taken-up to increase the income of farm women through backyard poultry rearing.

SAC Farmer Member Farmer: Sakthivel

40. Training on Organic Agriculture

SAC Farmer Member Farmer: Pounambal

41. Training on value addition in millets and vegetables

2. DETAILS OF DISTRICT (2019-20)

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

Major Farming system/enterprise	Crop system/enterprise with crop calendar
Irrigated situation-Command Areas: Heavy clay	➢ Rice (June-Sep.) - rice (Oct.-Jan.) - pulses/gingelly (Feb.-May) ➢ Rice (Aug.-Jan.) - pulses/sesame/cotton (Jan.-April) ➢ Maize /vegetables/pulses/sesame/green manure (June-Sep.) - rice (Aug.-Feb.) - pulses (Feb.-May) ➢ Sugarcane (Dec.-Nov.) - ratoon sugarcane (Dec.-Nov.) - rice (Dec.-May) ➢ Groundnut (June-Sep./Oct.) - 3 years rotation
Irrigated situation-Tankfed areas	➢ Rice/vegetables (Aug.-Jan.) - gingelly/pulses (Feb.-May
Irrigated situation-Well irrigated areas	➢ Rice (June-Sep.) - rice (Oct.-Jan.) - pulses/gingelly (Feb.-May) ➢ Rice (Aug.-Jan.) - pulses/sesame/cotton (Jan.-April) ➢ Maize /vegetables/pulses/sesame/green manure (June-Sep.) - rice (Aug.-Feb.) - pulses (Feb.-May) Sugarcane (Dec.-Nov.) - ratoon sugarcane (Dec.-Nov.) - rice (Dec.-May) ➢ Groundnut (June-Sep./Oct.) - 3 years rotation
Rainfed situation	➢ Maize/pearl millet (Jun.-Sep)/Groundnut (June-Sep.) ➢ Maize/Pearl Millet (Jun.-Sep) ➢ Groundnut (June-Sep.)
Coastal areas/assured water supply situation -Fisheries/ Aquaculture/ Marine culture in ponds	➢ Marine culture in ponds (Throughout the year)
Assured water supply situation - Fisheries/ Aquaculture	➢ Inland fish culture in farm ponds (Throughout the year)

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

S.No	Agro-climatic Zone	Characteristics
1.	North Eastern Zone	Cropping pattern: Rice-Rice-Pulses; Rice-Pulses / Sesame /Cotton Soil type: 1.Red Sandy Loam, 2. Clay Loam, 3. Saline coastal Alluvium

S.No.	Agro ecological situation	Soil type	Characteristics
1.	AES-I	Sandy Clay loam, Medium texture, Normal Rainfall, Well irrigated area	Diversified agriculture
2.	AES-II	Clay loam, Heavy texture, Normal Rainfall, Delta area	Paddy areas
3.	AES-III	Sandy clay loam, Medium to light texture, Rainfed area	Rainfed agriculture

2.3 Soil types

S.No	Soil type	Characteristics	Area in ha
1.	Sandy loam	Slightly acidic to alkaline in pH, Poor in water holding capacity, low in N, medium in P and K	91679
2.	Sandy	Neutral to Saline pH, poor in water holding capacity, low in N, medium in P and K.	31974
3.	Clay loam	Neutral to alkaline pH, poorly drained soil, medium in N, P and high in K.	115565
4.	Sandy Clay loam	Neutral to Saline pH, low in N, medium in P and K	128573
		Total	**367791**

2.4. Area, Production and Productivity of major crops cultivated in the jurisdiction for 2019-20

S. No	Crop	Area (ha)	Production (Mt)	Productivity (Kg /ha)
Cereals				
1.	Rice	139986	6.60 (Rice)	4767
Millets				
1.	Sorghum	21	0.001	2013
2.	Cumbu	3491	0.15	3300
3.	Maize	22705	1.55	6981
4.	Varagu	50	0..01	2327
Pulses				
1.	Redgram	172	0.01	1256
2.	Blackgram	52400	0.45	1138
3.	Greengram	10800	0.09	1091
Oilseeds				
1	Groundnut	9926	0.29	2763
2	Gingelly	3600	0.23	607

Cash crops				
1.	Cotton	7211	0.13	659
2.	Sugarcane	24443	28.35	120000
Horticultural crops				
Fruits/plantation crops				
1.	Cashew nut	32146	178371	552.9
2.	Banana	4250.83	23571.6	97421
3.	Jack	664.91	4930	-
4	Guava	570.405	658.86	403
5	Mango	494.935	4438.09	2277
Vegetables/spices				
1.	Brinjal	172.385	16637.73	2542
2.	Chillies	128.170	436.55	45
3.	Bhendi	153.12	8699.58	757
4.	Tapioca	3252.010	29790.82	101408
Flower crops				
1.	Rose	35.140	--	--
2.	Jasmine-Gundumalli	143.590	--	--
3.	Jasmine-Mullai	250.315	--	--
4.	Crossandra	43.200	--	--

2.5. Weather data (April 2019 to March 2020)

Month	**Rainfall (mm)**	**Temperature°C**		**Relative Humidity (%)**
		Maximum	**Minimum**	
Jan 2019	00	32.88	00	83.2
Feb 2019	7	36.00	00	82.0
March 2019	0	39.1	00	77.8
April 2019	0	39.68	00	73.78
May 2019	0	39.9		66.5
June 2019	17	40		66.4
July 2019	109.2	-	-	-
Auguest 2019	187.2	35	25.6	-
September 2019	240.8	33.5	25.7	-
October 2019	193	31.8	25.4	-
November 2019	106.3	32.2	24.9	-
December 2019	216	-	-	-

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

Category	Population (Nos.)/Area (km)	Production
Cattle	337451 Nos.	174 lakh litres
Crossbred	150976 Nos.	5412
Indigenous	23562 Nos.	777
Buffalo	19784 Nos.	15.106
Sheep	59255 Nos.	6968
Crossbred	-	--
Indigenous	-	--
Goats	305366 Nos.	--
Pigs	**17827** Nos.	--
Crossbred	-	--
Indigenous	-	--
Rabbits	-	--
Poultry	3805549 Nos.	165.121 lakh Nos.
Hens	-	--
Desi	-	--
Improved	-	--
Ducks	11614 Nos.	-
Turkey and others	-	-
Fish	-	-
Marine	57.5 km	426735
Inland	45 km	184753.44
Prawn	--	--
Scampi	--	--
Shrimp	--	--

2.7. Details of Adopted Villages (2019-20)

S.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.	Vridhachalam	Vridhachalam	Sathakudal	2018	-	-	-
DFI villages							
1.	Kurinjipadi	Kurinjipadi	Ayyankurinjipadi	2018	Paddy	Lack of knowledge on latest released varieties for kuruvai season Non availability of seed for integration of variety. Linking of new variety into seed production chain	Demonstration of ADT 53 paddy
2.	Kurinjipadi	Kurinjipadi	Ayyankurinjipadi	2018	Groundnut	Lack of knowledge on latest released varieties. Non adoption of ICM technology. Non availability of seeds of latest varieties for adaption.	Demonstration of seed production (foundation /certified) by farmer participatory mode in groundnut (VRI 8)
3.	Kurinjipadi	Kurinjipadi	Ayyankurinjipadi	2018	Gingelly	Lack of knowledge on latest released varieties. Non adoption of ICM technology. Non availability of seeds of	Demonstration of seed production (foundation /certified) by farmer participatory mode in gingelly (VRI 3)

						latest varieties for adaption.	

2.8. Priority/thrust areas

Crop/Enterprise	Thrust area
Paddy, Blackgram, Millets, Groundnut, Bhendi and watermelon	Evaluation and demonstration of new high yielding varieties and hybrids
Marigold, Tuberose, Ragi, Barn yard millet and vegetable crops (Bhendi, Brinjal)	Introduction of alternate cropping system and crop management practices
Brinjal, Marigold, Barnyard millet and Ragi	Integrated nutrient management for improving crop productivity and soil health
Bhendi, Brinjal, Marigold, tuberose and Banana	Improving the productivity of horticultural crops
Maize, Cotton, Watermelon, Tuberose, banana and coconut	Integrated pest and disease management
Paddy, fish, poultry, Moringa	Self employment and entrepreneur development programmes
Paddy	Problem soil management
Paddy, Groundnut, Gingelly, Black gram	Production and supply of quality seed / seedling materials
Wetland and rainfed ecosystem (Trainings)	Integrated Farming System

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

S. No	Activity	Target	Achievement
1.	Technologies Assessed (No.)	6	6
2.	On-farm trials conducted (No.)	45	45
3.	Frontline demonstrations conducted (No.)	16	16
4.	Farmers trained (in Lakh)	0.059	0.059
5.	Extension Personnel trained (No.)	411	411
6.	Participants in extension activities (in Lakh)	0.0448	0.0448
7.	Production of Seed (in Quintal)	24.50	24.50
8.	Planting material produced (in Lakh)	0.0365	0.365
9.	Production of bio-products (in Lakh)	0.0071	0.0071

10.	Live-stock strains and fingerlings produced (in Lakh)	-	0.2055
11.	Soil, Water, plant, manures samples tested (in Lakh)	515	0.4885
12.	Mobile agro-advisory provided to farmers (in Lakh)	0.0396	0.0396
13.	No. of Soil Health Cards issued by Mini Soil Testing Kits (No.)	303	303
14.	No. of Soil Health Cards issued by Traditional Laboratory (No.)	83	83

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

1. Introduction of High yielding varieties of Paddy TKM 13, ADT 53, & ADT 51 and achievement of area Expansion to a tune of 12000 ha (TKM 13), 1000 ha (ADT 53) and 26.08 % increase in productivity of paddy
2. KVK has procured 15.4 tonnes of TKM 13 paddy seeds from the FLD farmers through farmer participatory mode
3. Production of Oilseeds - Introduction of new varieties VRI 8 in groundnut and VRI 3 in gingelly and 41.64% increase in productivity in groundnut, 50.4% increase in productivity in gingelly
4. KVK has procured 2 tonnes of VRI 8 Groundnut and 1 tonnes of VRI 3 gingelly seeds from the FLD farmers through farmer participatory mode
5. Received Best performance in Cluster FLD on Rabi Oilseeds award received from ATARI-ICAR, Zone X, Hyderabad during the year 2019
6. Production of Pulses - Introduction of new varieties VBN 6, VBN 8, MDU 1 Blackgram and CO 8 Greengram
7. Achievement of 26.74% increase in productivity in pulses and 75% increase in pulses area from 2014-19
8. Area expansion of MDU 1 Blackgram – 10000 ha during 2019-20 and procured 4.5 tonnes of MDU 1 seeds from the FLD farmers through farmer participatory mode
9. Conducted 179 trainings to the farmers and farm womens for effective transfer of technology and 6483 farmers were benefitted
10. Developed 35 seed producers and one FPO by this kvk by giving technical inputs for the benefit of farming community
11. Conducted extension activities of 406 programmes and 4482 number participants were benefitted
12. KVK has produced 6743 planting material of Cashew grafts (VRI 3) and 256 farmers were benefitted
13. KVK has produced *Trichoderma viride* and *Pseudomonas* to a tune of 2000 kg
14. Awareness programme on Jal sakthi abiyan, Pre Rabi Programme, Fertilizer application and Animal health campaign and Tree planting programme were conducted and nearly 2500 farmers were benefitted

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**
6	6	45	45

ii) FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers	
Targets	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
17	17	67.9	67.9	231	231

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

Number of Courses			Number of Participants	
Clientele	**Targets**	**Achievement**	**Targets**	**Achievement**
Farmers	73	73	3901	3901
Rural youth	23	23	885	885
Extn. Functionaries	24	24	1245	1245
Sponsored training	57	57	1376	1376
Vocational training	2	2	72	72

iv) Extension Activities

Number of activities		Number of participants	
Targets	**Achievement**	**Targets**	**Achievement**
406	406	4482	4482

v) Seed Production (q)

Target	Achievement	Distributed to no. of farmers
Paddy (TKM 13) - 154	154	105
Sesame (VRI 3) - 6.25	6.25	154
Black gram (MDU 1) – 8.5	8.5	45
168.75	**168.75**	**304**

vi) Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
Chilli seedling - 300	300	10
Jack fruit – 193	193	48
Teak – 1718	1718	773
Cashew grafts - 4532	4532	3048
6743	**6743**	**3879**

v) Livestock (Nos.)

Target	Achievement	Distributed to no. of farmers
Thalacherry – 3	3	2
3	**3**	**2**

vii) Bio inputs (Nos.)

Target	Achievement	Distributed to no. of farmers
Vermicompost – 1598	1598	15
T. Viride – 105	105	10
Pseudomonas - 227	227	32
1935	**1935**	**42**

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	Paddy	Assessment of suitable sugarcane variety for cuddalore district	TNAU 2017	5	5
	Paddy	Assessment of suitable alternate variety for BPT 5204 in Cuddalore district	TNAU 2017	5	5
	Bottle gourd	Assessment of suitable bottle gourd varieties/ hybrids in Cuddalore district	IARI 2018	5	5
Integrated Pest Management	Maize	Assessment of management modules against maize fall army worm	ATARI, Hyderabad	10	10
	Coconut	Assessment of management modules againstcoconut rogoes whitefly	ATARI, Hyderabad	10	10
Integrated Crop Management					
Integrated Disease Management	Tube rose	Assessment of management modules against namatode complex in tuberose	ATARI, Hyderabad	10	10
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	-	-	-	-	-
	-	-	-	-	-
Others (Pl. specify)	-	-	-	-	-
	-	-	-	-	-
Total				**45**	**45**

ii) Summary of technologies assessed under livestock by KVKs - Nil

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	-	-	-	-
Nutrition Management	-	-	-	-
Production and Management	-	-	-	-

Others (Pl. specify)	-	-	-	-
Total				

iii) Summary of technologies assessed under various enterprises by KVKs - Nil

Thematic areas	Enterprise	Name of the technology assessed	Source of technology with year	No. of trials	No. of farmers
-	-	-	-	-	-
	-	-	-	-	-

3.C. TECHNOLOGY ASSESSMENT IN DETAIL

1. Assessment of suitable Sugarcane variety for Cuddalore District

1.	Thematic area	:	Varietal evaluation
2.	Title of Technology Assessed	:	Assessment of suitable Sugarcane variety for Cuddalore District
3.	Scientists involved	:	Dr. K. Natarajan, SMS (SST)
4.	Details of farming situation	:	Season : Kharif, 2019 Farming situation : Irrigated Soil type : Sandy clay loam Fertility status : N- Low :, P – Medium & K – High Seasonal rainfall : 384.8 mm Number of rainy days : 14
5.	Problem definition / description	:	❖ Low yield in existing variety- ❖ Lack of awareness on recent varieties under rainfed situation
6.	Technology Assessed	:	**TO 1**: Farmer practice (CO 86032); **TO2**: COC25; **TO3**: COV09356
7	Critical inputs given: (along with quantity as well as value)		**Critical inputs** / **Quantity** / **Value**: Sugarcane setts; Sugarcane seedlings
8.	Results:	:	The trial is under progress
	Table : Performance of the technology		
9	Description of the results		
10.	Feed back of the farmers involved:		
11.	Feed back to the scientist who developed the technology		

Technology Option	***No. of trials***	***Yield (q/ha)***	***Net Returns (Rs.in lakh./ha)***	***B:C ratio***	***Data on Other performance indicators****
Farmers Practice CO 86032	*5*				
Technology 1 : COC 25					
Technology 2 : COV09356					

2. Assessment of suitable alternate variety for BPT 5204 in Cuddalore district

1.	Thematic area	:	Varietal Evaluation
2.	Title of Technology Assessed	:	Assessment of suitable alternate variety for BPT 5204 in Cuddalore district
3.	Scientists involved	:	SMS (Agr.) and SMS(SST)
4.	Details of farming situation	:	Season : Rabi, 2018 Farming situation : Irrigated Soil type : Clay Fertility status : N- Low : P – Medium & K – High Seasonal rainfall : 948.0 Number of rainy days : 51
5.	Problem definition / description	:	❖ Pest problem is higher in BPT 5204 ❖ Lack of awareness to farmers on alternate variety for BPT 5204 which fetches high price in market.
6.	Technology Assessed	:	

TO 1	TO2	TO3
Farmer practice	ADT 51	NLR 3041

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

Critical inputs	Quantity	Value
Paddy seed -ADT 51	50 kg	1550
Paddy seed-NLR 3041	45 kg	3173

8. Results:

Table : Performance of the technology

Technology Option	*No.of trials*	*Yield (t/ha)*	*Net Returns (Rs. in)lakh.*	*B:C*	*Data on Other performance indicators**
Farmers Practice-BPT 5204	*5*	*4.412*	*46680*	*1:1.89*	*No.of productive tillers/hill -18.2 No.of grains/panicle-140.4 Blast incidence 22 per cent*
Technology 1 (ADT 51)		*5.828*	*66470*	*1:2.09*	*No.of productive tillers/hill –20.8 No.of grains/panicle-143.4 Blast incidence 7 per cent*
Technology2 (NLR 3041)		*5.046*	*55838*	*1:2.33*	*No.of productive tillers/hill -23.0 No.of grains/panicle-146.6 Blast incidence 17 per cent*

9	Description of the results		The results showed that paddy Var.ADT 51 recorded high growth, yield attributing, yield and net return when compared to NLR 3041 and farmer's practice of BPT 5204. ADT 51 was recorded 24.2 per cent higher yield over farmers practice and 13.0 per cent over NLR 3041 and also ADT 51 was recorded 30 per cent higher net return over farmers practice and 16 per cent over NLR 3041. The blast incidence were less in ADT 51 (9 per cent) when compared to NLR 3041 (17 per cent) and farmer's practice (22 per cent).

10.	Feed back of the farmers involved:		ADT 51 fetches equal price as that of BPT 5204.The yield obtained from ADT 51 is higher than the BPT 5204.The disease incidence was also lower in ADT 51 when compared to Farmers practice of BPT 5204 and NLR 3041
11.	Feed back to the scientist who developed the technology		Seed availability at correct season in large quantity may be ensured for further spread of the paddy var.ADT 51 .

3. Assessment of management modules against maize fall army worm

<table>
<tr><td>1.</td><td>Thematic area</td><td>:</td><td>Integrated pest management</td></tr>
<tr><td>2.</td><td>Title of Technology Assessed</td><td>:</td><td>Assessment of management modules against maize fall army worm</td></tr>
<tr><td>3.</td><td>Scientists involved</td><td>:</td><td>Dr. S. Maruthasalam, SMS (PP)</td></tr>
<tr><td>4.</td><td>Details of farming situation</td><td>:</td><td>Season : Kharif, 2019
Farming situation : Irrigated
Soil type : Clay loam
Fertility status : N- M :, P – Low & K – High
Seasonal rainfall : 50 mm
Number of rainy days : 3</td></tr>
<tr><td>5.</td><td>Problem definition / description</td><td>:</td><td>❖ Sudden out-break of fall army worm leads to heavy yield loss to farmers
❖ Lack of sustainable management practices</td></tr>
<tr><td>6.</td><td>Technology Assessed</td><td>:</td><td><table><tr><th>TO 1</th><th>TO 2</th></tr><tr><td>Farmer practice- Spraying of insecticides</td><td>Summer ploughing, Neem Cake @ 100 kg/ac at last ploughing, Seed treatment with Fortezaduo (Cyantraniliprole + Thiamethoxam) @ 2 ml/Kg, Border drop with grain sorghum & Intercropping with Cowpea, Collection and destruction of Egg masses Installation of Pheromone traps @ 4 Nos/ac, Neem spray (1%) 10 to 15 DAS EPN or Bt @ 2g/lt 15 – 21 DAS, Spraying of Insecticide – 21 -28 & 36-42 DAS Spraying of Metarhizium anisopliae @ 2ml/lt 30-35 DAS, Poison baiting @ 45 -65 DAS
Summer ploughing, Neem Cake @ 100 kg/ac at last ploughing, Seed treatment with Fortezaduo (Cyantraniliprole + Thiamethoxam) @ 2 ml/Kg, Border drop with grain sorghum & Intercropping with Cowpea, Collection and destruction of Egg masses Installation of Pheromone traps @ 4 Nos/ac, Neem spray (1%) 10 to 15 DAS EPN or Bt @ 2g/lt 15 – 21 DAS, Spraying of Insecticide – 21 -28 & 36-42 DAS Spraying of Metarhizium anisopliae @ 2ml/lt 30-35 DAS, Poison baiting @ 45 -65 DAS</td></tr></table></td></tr>
</table>

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

Critical inputs	**Quantity**	**Value**
Fortenza duo	40 ml	Rs.250
Bt	1 litre	Rs.1000
Metarhizium anisopliae	1 litre	Rs.600
Azadirachtin 10000 ppm	1 litre	Rs.1100
Pheromone trap	4 nos.	Rs.320

8.	Results:	:	The integrated management strategy adopted in this trial greatly reduced the incidence of fall army worm (more than 100%), when compared to insecticide spraying alone. More yield was recorded in the demo fields. Also the cob incidence was very low (<1%) in the IPM fields than the farmers practice.

Table : Performance of the technology

Technology Option	***No. of trials***	***Yield (q/ha)***	***Net Returns (Rs.in lakh./ha)***	***B:C ratio***	***Data on Other performance indicators****
TO 1- Farmers Practice- Insecticide spraying	*10*	*18.80*	*0.117*	*1:1.71*	Percent leaf and whorl damage: 45%. Percent cob damage: 10%
TO 2- Integrated fall army worm management module		*23.50*	*0.204*	*1:2.37*	Percent leaf and whorl damage: 20.5%. Percent cob damage: <1%

9	Description of the results		The IPM strategy adopted showed promising results in terms of fall army worm damage and grain yield than the farmers practice. This could probably be attributed to the reduced use of insecticides which might indirectly attract the natural enemies. The cob incidence was very low in demo fields, which significantly contributed to the higher yield than farmers practice. Another important finding is that the fall army worm incidence was lower in demo fields during the early stage of crop growth because of seed treatment before sowing.
10.	Feed back of the farmers involved:		The famers have realized that fall army worm can be effectively controlled only by following the integrated pest management practices than relying only on chemicals.
11.	Feed back to the scientist who developed the technology		This technology can be forwarded to the FLD.

4. Assessment of management modules against coconut rugose whitefly

<table>
<tr><td>1.</td><td>Thematic area</td><td>:</td><td>Integrated pest management</td></tr>
<tr><td>2.</td><td>Title of Technology Assessed</td><td>:</td><td>Assessment of management modules against coconut rugose whitefly</td></tr>
<tr><td>3.</td><td>Scientists involved</td><td>:</td><td>Dr. S. Maruthasalam, SMS (PP)</td></tr>
<tr><td>4.</td><td>Details of farming situation</td><td>:</td><td>Season : Rabi, 2019
Farming situation : Irrigated
Soil type : Clay loam
Fertility status : N- Low: P – Low & K – Medium
Seasonal rainfall : 200 mm
Number of rainy days : 4</td></tr>
<tr><td>5.</td><td>Problem definition / description</td><td>:</td><td>❖ Sudden out-break of rugose whitefly cause drying of leaves and significant reduction in nut yield</td></tr>
<tr><td>6.</td><td>Technology Assessed</td><td>:</td><td><table><tr><th>TO 1</th><th>TO 2</th></tr><tr><td>Farmer practice- Spraying of insecticides</td><td>• Installation Yellow sticky traps 3 x 1.5ft @ 10nos/ac
• Release of Chrysopa zastrowi silemmi Predator @ 400 nos/ac at 15 days interval
• Encarsia guadeloupae parasitoid
• Foliar application of Isaria fumosorosea ($1x10^9$ spores/ml) @ 5g/lt
• Spraying neem based formulations (Azadirachitin 1% @ 2 ml/lt) along with wetting agent or detergent powder @ 10g/lt at 20 days interval
• Spraying of 1% starch solution for sooty mould
• Avoid spraying of chemical insecticides (SAUs: TNAU/Dr YSRHU& NBAIR)</td></tr></table></td></tr>
<tr><td>7</td><td>Critical inputs given: (along with quantity as well as value)</td><td></td><td><table><tr><th>Critical inputs</th><th>Quantity</th><th>Value</th></tr><tr><td>Yellow sticky trap</td><td></td><td></td></tr><tr><td>Isaria fumosorosea</td><td></td><td></td></tr><tr><td>Chrysoperla</td><td></td><td></td></tr><tr><td>Azadirachtin 10000 ppm</td><td></td><td></td></tr></table></td></tr>
<tr><td>8.</td><td>Results:</td><td>:</td><td>The trial is in progress</td></tr>
<tr><td></td><td colspan="3">Table : Performance of the technology<table><tr><th>Technology Option</th><th>No. of trials</th><th>Yield (q/ha)</th><th>Net Returns (Rs.in lakh./ha)</th><th>B:C ratio</th><th>Data on Other performance indicators*</th></tr><tr><td></td><td rowspan="2"></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table></td></tr>
<tr><td>9</td><td>Description of the results</td><td></td><td></td></tr>
<tr><td>10.</td><td>Feed back of the farmers involved:</td><td></td><td></td></tr>
<tr><td>11.</td><td>Feed back to the scientist who developed the technology</td><td></td><td></td></tr>
</table>

5. Assessment of management modules against nematode complex in tuberose

<table>
<tr><td>1.</td><td>Thematic area</td><td>:</td><td>Integrated pest management</td></tr>
<tr><td>2.</td><td>Title of Technology Assessed</td><td>:</td><td>Assessment of management modules against nematode complex in tuberose</td></tr>
<tr><td>3.</td><td>Scientists involved</td><td>:</td><td>Dr. S. Maruthasalam, SMS (PP)</td></tr>
<tr><td>4.</td><td>Details of farming situation</td><td>:</td><td>Season : Rabi, 2019
Farming situation : Irrigated
Soil type : Clay loam
Fertility status : N- High; P-Low & K – High
Seasonal rainfall : 120 mm
Number of rainy days : 5</td></tr>
<tr><td>5.</td><td>Problem definition / description</td><td>:</td><td>❖ Nematode infestation causes stunting of plants and affects the onset of flowering.</td></tr>
<tr><td>6.</td><td>Technology Assessed</td><td>:</td><td>
<table>
<tr><th>TO 1</th><th>TO 2</th><th>TO 3</th></tr>
<tr><td>Farmer practice- Granular insecticide application</td><td>Bulb treatment with P. fluorescens & T. viride each @ 10g/Kg

T. harzianum or T. viride + P. fluorescens + Paecilomyces lilacinus each @ 2 Kg / tonne of FYM for enrichment & applied before planting (or)

For standing crop biopesticides enriched neem cake 100kg/ac – Once in three months (IIHR)</td><td>Bulb treatment with P. fluorescens & T. viride each @ 10g/Kg.

Application of Pochoniachlamydosporia @ 2 Kg/ac along with Neem cake repeated once in three months (NBAIR)</td></tr>
</table>
</td></tr>
<tr><td>7</td><td>Critical inputs given: (along with quantity as well as value)</td><td></td><td>
<table>
<tr><td>Critical inputs</td><td>Quantity</td><td>Value</td></tr>
<tr><td>Pseudomonas fluorescens</td><td></td><td></td></tr>
<tr><td>Trichoderma viride</td><td></td><td></td></tr>
<tr><td>Pochonia chlamydosporia</td><td></td><td></td></tr>
<tr><td>Paecilomyces lilacinus</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>8.</td><td>Results:</td><td>:</td><td>The trial is in progress</td></tr>
<tr><td></td><td colspan="3">Table : Performance of the technology
<table>
<tr><th>Technology Option</th><th>No. of trials</th><th>Yield (q/ha)</th><th>Net Returns (Rs.in lakh./ha)</th><th>B:C ratio</th><th>Data on Other performance indicators*</th></tr>
<tr><td></td><td rowspan="2"></td><td></td><td></td><td></td><td></td></tr>
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</table>
</td></tr>
<tr><td>9</td><td>Description of the results</td><td></td><td></td></tr>
<tr><td>10.</td><td>Feed back of the farmers involved:</td><td></td><td></td></tr>
<tr><td>11.</td><td>Feed back to the scientist who developed the technology</td><td></td><td></td></tr>
</table>

6. Assessment of suitable bottle gourd varieties/hybrids in Cuddalore district

<table>
<tr><td>1.</td><td>Thematic area</td><td>:</td><td>Varietal evaluation</td></tr>
<tr><td>2.</td><td>Title of Technology Assessed</td><td>:</td><td>Assessment of suitable bottle gourd varieties/hybrids in Cuddalore district</td></tr>
<tr><td>3.</td><td>Scientists involved</td><td>:</td><td>Dr.R. Jagadeesan, SMS (Horti.)</td></tr>
<tr><td>4.</td><td>Details of farming situation</td><td>:</td><td>The trial was sowing in Rabi (summer) season of 2019-2020 in different blocks of Cuddalore district in five different locations of each 5 farmers of each variety and farmers practice under irrigated condition of clay loam soil to sandy loam soil. The selected plots are medium fertility status level without problem affected in nature. The crop was raised under raised bed system to avoid direct water contact to the growing wines and fruits. To make pits of size30m^{3}and filled with FYM 10 kg and basal dose of recommended quantity of superphosphate. Each bed 5 seeds were sown in round of the bed. The seeds were germinated within 8-10 days and gap filling was done in 15 days after sowing. Thinning of the seedlings was done 25 days after sowing of the seedlings. Immediately after thinning of the seedlings followed by hand weeding and top dressing of the fertilizer was done in the (6:6:12 fertilizer mixture) recommended dose of fertilizer and given the irrigation. For controlling the sucking pest problem, application of any one of the systemic insecticide except sulphur compounds along with one systemic fungicide to control downy mildew diasease. Mean while, application of growth regulator of ethrel @25 ppm was given starting fromt two true leaf stage. Totally 4 sparys were given in weekly intervels. First flowering was appeared 47 days after sowing and first harvest was done 0n 55 days after sowing.</td></tr>
<tr><td>5.</td><td>Problem definition / description</td><td>:</td><td>The farmers of Cuddalore district are much interested in cultivation of short duration and low investment horticultural crops like bottle gourd. But, they are unaware about the suitable varieties for their region. So, this intervention may definitely helpful to the farmers to identifying the suitable varieties of bottle gourd and getting more profit in future.</td></tr>
<tr><td>6.</td><td>Technology Assessed</td><td>:</td><td>
<table>
<tr><th>TO 1</th><th>TO2</th><th>TO3</th></tr>
<tr><td>Farmers Practice(Local variety)</td><td>Technology 1(Pusa santushti)</td><td>Technology 2(PLR-2)</td></tr>
</table>
</td></tr>
</table>

7	Critical inputs given: (along with quantity as well as value)		Seeds of each variety in quantity of 500 grams was given. The total seed cost of about Rs.1000/- and growth regulator of Ethrel @ 100 ml per farmer to increase the female flower production and increase the yield. The sprat was given at 2 true leaf stage itself and continuously about 4 times with weekly intervels.
8.	Results:	:	

Table : Performance of the technology

Technology Option	***No. of trials***	***Yield (q/ha)***	***Net Returns (Rs.in lakh./ha)***	***B:C ratio***	***Data on Other performance indicators****
Farmers Practice(Local variety)	*5*	18.5	0.14150	1:1.35	Higher incidence of pumpkin beetle
Technology 1(Pusa santushti)		21.3	0.28090	1:1.80	Moderate incidence of pumpkin beetle
Technology 2(PLR-2)		30.9	0.55270	1:2.57	Lower incidence of pumpkin beetle

9	Description of the results		The variety PLR-2 was performed well when compared to technology option one and farmers practice. Adoptability of the variety is well with low input cost also. Overall consumer acceptability was good when compared to other two options.

Fig. 1. Yield (t/ha) performances of bottle gourd varieties

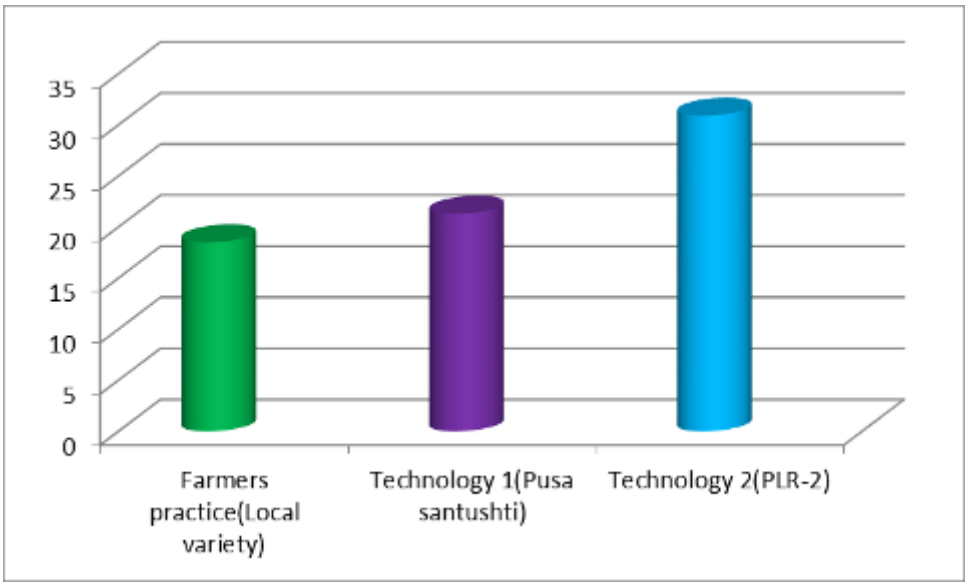
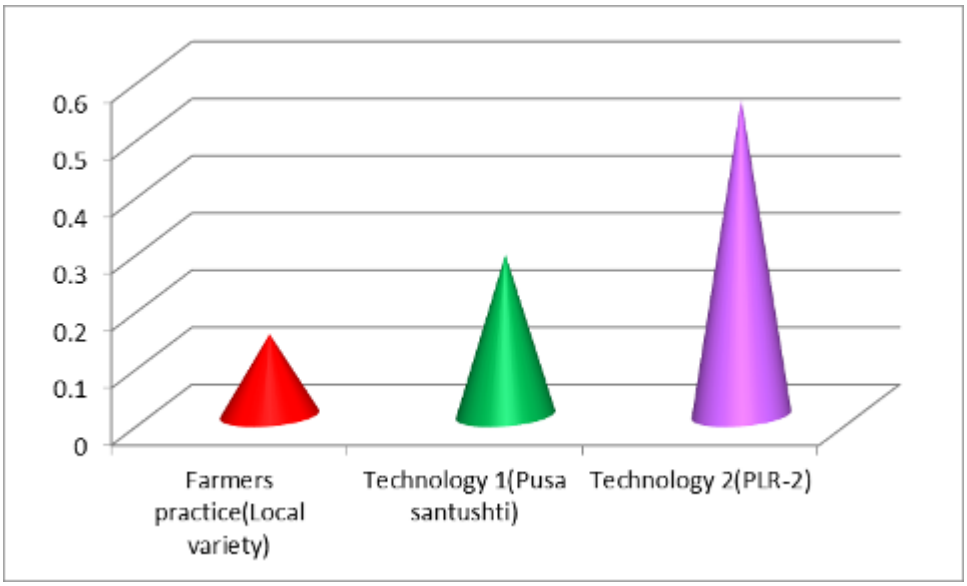
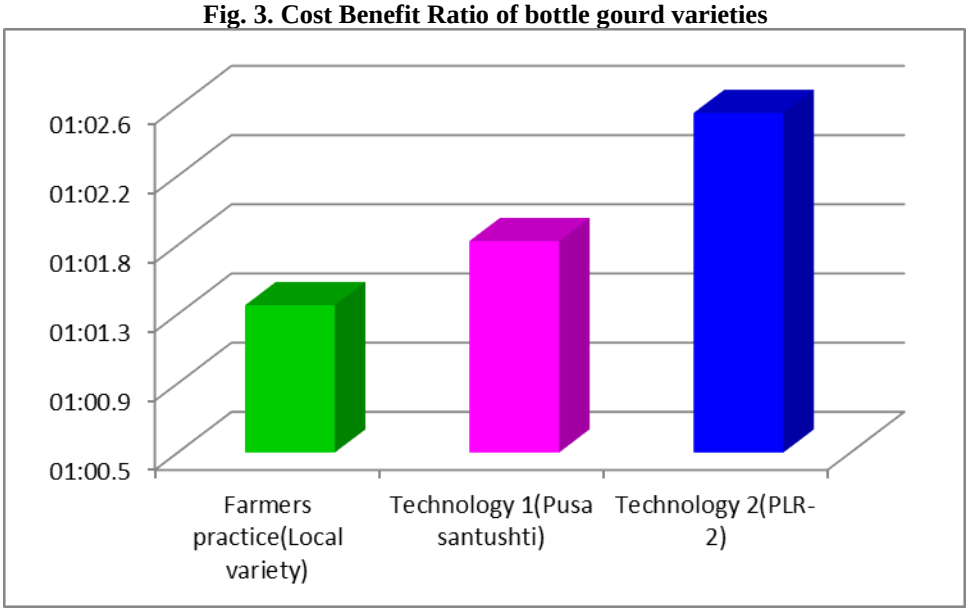


			Fig. 2. Net return (lakhs/ha) of bottle gourd varieties 
			Fig. 3. Cost Benefit Ratio of bottle gourd varieties 
10.	Feed back of the farmers involved:		Very much appreciated due to acceptance of the consumers and yield performance in short duration and marketability, tenderness and adopted in packaging methods because of absence of bottle neck of the particular variety.
11.	Feed back to the scientist who developed the technology		This variety was overall accepted by the farmers due to the less cost of cultivation in the absence of providing pandal system and palatability of variety and high yield in nature.

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
1	Paddy	Seed Production	❖ Improved variety – TKM 13 ❖ Seed Treatrment with bio control agents ❖ Disseminate the values of seed production with integrated approach towards availability of high quality seeds ❖ Pest and disease management ❖ DAP spray ❖ Roguing operation and certification procedures	❖ Result Demonstration through cluster approach ❖ Involving FPO and farmers club for seed production ❖ Creating awareness through leaflets, pamphlets and folders ❖ Impart knowledge through trainings ❖ Create awareness through social media like news paper, radio talk	33	984	12500
2.	Paddy	Varietal demonstration	❖ Variety VTL 10 ❖ MN mixture application ❖ Organic manure application (vermi compost)	❖ Creating awareness through leaflets, pamphlets and folders ❖ Impart knowledge through trainings ❖ Create awareness through social media like news paper, radio talk .	4	6	2.0
3.	Cumbu	Varietal demonstration	❖ Variety TNAU CUMBU CO 10 ❖ Micro nutrient application ❖ Seed treatment ❖ Spacing ❖ And Value addition	❖ Impart knowledge through trainings ❖ Create awareness through social media like news paper, radio talk . ❖ Conducting demonstrations	4	5	4.0

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
4.	Groundnut	Seed Production & Crop Improvement	❖ Improved variety – VRI 8 ❖ Seed treatment with biofertilizer and bio control agents ❖ Seed drill sowing & BBF former ❖ Application of TNAU ground nut rich ❖ Post emergence herbicide application ❖ Seed production methods ❖ IPDM in groundnut ❖ Roguing operation and certification procedures	❖ Result Demonstration through cluster approach ❖ Involving FPO and farmers club for seed production ❖ Creating awareness through leaflets, pamphlets and folders ❖ Impart knowledge through trainings ❖ Create awareness through social media like news paper, radio talk	45	658	4500
5.	Gingelly	Seed Production & Crop Improvement	❖ Improved variety – VRI 3 ❖ Seed treatment with biofertilizer and bio control agents ❖ Seed production methods ❖ IPDM in groundnut ❖ Roguing operation and certification procedures	❖ Result Demonstration through cluster approach ❖ Involving FPO and farmers club for seed production ❖ Impart knowledge through trainings ❖ Create awareness through social media like news paper, radio talk	18	372	400

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
6.	Blackgram	Seed Production & Crop Improvement	❖ Improved variety – MDU 1 ❖ Seed treatment with biofertilizer and bio control agents ❖ Application of TNAU Pulse wonder ❖ Post emergence herbicide application ❖ Seed production methods ❖ IPDM in groundnut ❖ Roguing operation and certification procedures	❖ Result Demonstration through cluster approach ❖ Involving FPO and farmers club for seed production ❖ Creating awareness through leaflets, pamphlets and folders ❖ Impart knowledge through trainings ❖ Create awareness through social media like news paper, radio talk	14	456	15000
7.	Red gram	Varietal demonstration	❖ Variety CO 8 ❖ Seed rate seed treatment ❖ Spacing ❖ Foliar spray of pulse wonder	❖ Impart knowledge through trainings ❖ Create awareness through social media like news paper, radio talk . ❖ Conducting demonstrations	4	5	4.0

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.)

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	Variety	Demonstration of ADT 53 paddy	Kuruvai, 2019	ICAR	4	4	4	6	10	-
2	Paddy	Variety	Demonstration of ADT 51 paddy seed production (foundation /certified) by farmer participatory mode affected areas in Cuddalore district	Samba 2019	ICAR	4	4	3	7	10	-
3	Paddy	ICM	Saline tolerant paddy var.TRY 3,Green manuring ,Zinc sulphate, increase seed rate and nitrogen application	Rabi 2019	ICAR	4	4	2	8	10	-
4	Paddy	IDM	Wet seed treatment with Pseudomonas fluorescens (10 g/kg) for 1 hour, Root dipping in Pseudomonas suspension for 30 min, Three foliar sprays of Pseudomonas (5 gram/litre) at 40, 50 and 60 days after transplanting	Rabi	ICAR	4	4	2	8	10	
5	Ground nut	ICM	Demonstration of seed production (foundation /certified) by farmer participatory mode in groundnut (VRI 8)	Rabi 2019	ICAR	2	2	2	8	10	-
6	Sesame	ICM	Demonstration of seed production (foundation /certified) by farmer participatory mode in gingelly (VRI 3)	Rabi Summer 2020	ICAR	10	10	8	17	25	-
7	Sugarcane	Resource Conservation	Demonstration of NCOF waste decomposer for decomposing sugarcane waste	Early	ICAR						
8	Black gram	ICM	Demonstration of ICM practices in Blackgram (VBN 8)	Rabi	ICAR	4	4	4	6	10	-
9	Agroforestry	Cropping System	Demonstration of high yielding multifunctional industrial agroforestry trees (Casuarina MTP 2)	Throughout the year	ICAR	4	4	2	8	10	
10	Bhendi	ICM	Demonstration of CO4 bhendi with ICM (Results of OFT of 2018-19)	Throughout the year	ICAR	4	4	3	7	10	
11	Water melon	ICM	Demonstration of Arka Akash watermelon with integrated crop management practices	Rabi	ICAR	4	4	2	8	10	
12	Mixed Fodder	Cropping system	Demonstration of fodder bank for livestock	Throughout the year	ICAR	4	4	3	7	10	-

c. 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					
Paddy	Kuruvai 2019	Irrigated	Clay	L	M	H	Gingelly	02.06.2019	12.09.2019	346.9	21
Paddy	Samba, 2019	Irrigated	Clay	L	M	H	Green manure	28.09.2019	13.02.2020	613.6	31
Paddy	Rabi	Irrigated	Clay	L	M	H	Fallow	18.7.2019	28.1.2020	948	51
Paddy	Samba, 2019	Irrigated	Clay	H	M	H	Green manure	01.09.2019	17.01.2020	125	5
Groundnut	Rabi, 2019	Irrigated	Sandy loam	L	M	H	Cumbu	04.12.2019	02.04.2020	312.6	11
Sesame	Rabi summer, 2020	Irrigated	Sandy loam	L	M	H	Groundnut	16.2.19	30.4.20	20.6	1.2
Sugarcane	Early (Jan-Feb)	Irrigated	L	M	H	L	Sugarcane	10.2.2019	-	1.2	1
Blackgram	Rabi, 2019	Rainfed	Clay	L	M	H	Cumbu	27.10.19	12.01.2020	580.5	11
Fodder	-	Rainfed	Clay	L	M	H	Uncultivable land	16.09.19	3-4 cuttings Throughout year	36.6	6

d. Technical Feedback on the demonstrated technologies

S. No	Feed Back
1.	**Demonstration of ADT 53 paddy in Cuddalore district** ❖ It is also a contingent samba variety that could be cultivated under late release of water in Cauvery beyond the month of October so as to enable it to be harvested before the closure of the dam ❖ Non Lodging compact plant type with well exerted compact panicle ❖ Medium Slender rice with high Milling outturn and Head Rice Recovery ❖ Moderatly resistant to stem borer, leaf folder blast, sheath rot and brown spot ❖ Suitable for *Kuruvai/ Kodai/ Navarai* seasons
2.	**Demonstration of paddy ADT 51 seed production by farmer participatory mode** ❖ Moderately resistant to pest and diseases like Leaf folder, stem borer, green leaf hopper, sheath rot, blast and brown spot. The Rice develops small hairy formations all over its leaves and stem making itself inaccessible for the insect pest to rest and lay eggs and keep it away from causing damage to the crop. It is highly responsive to fertilizers and manures application enhancing plant potential to give more yield. ❖ Less disease incidence and less use of plant protection chemicals. In few fields blast has been observed as the only disease incidence and it has been treated with pseudomonas and fresh cow dung spray. The maximum yield recorded in this trial was 2270/acre. ❖ Profuse tillering with more side shoots is highly suitable for SRI method of rice planting. ❖ Non lodging even in heavy rain and flood and tolerant to pest and disease.
3.	**Variety VTL 10 MN mixture application Organic manure application (vermi compost)** ❖ VTL 10 performing better in kharif season under saline soil condition and seed availability has to be ensured in coming season
4.	**Demonstration of ICM practices in paddy cultication in salt affected soil** ❖ ICM practices is highly suitable under saline soil condition,TRY 3 variety performs better under saline soil condition
5.	**Demonstration of blast disease management in rice** ❖ Farmers have realized that integrated management strategy should be followed to combat blast disease, because it is a seed-borne as well as air-borne disease. ❖ Over dependence on fungicide is neither sustainable nor economical.
6.	❖ Farmers have felt that groundnut rich application was easier than DAP application and has the advantage of increasing the pod setting. Drought tolerance was good. The successful performance of VRI 8 in terms of yield motivated other farmers in the village to adopt the variety.
7.	**Demonstration and seed production in farmer participatory mode in Gingelly var.VRI 3** ❖ The farmers have realized that the variety is suitable for rabi summer season especially during February – March ❖ The number of capsule per plant was more compare to other varieties

S. No	Feed Back
8.	**Demonstration of HYV, seed production in participatory mode in groundnut var.VRI 8** ❖ The farmers have realized that the variety is suitable for rabi season especially during North east monsoon. ❖ Establishment of a network of small and medium seed growers in rainfed areas for the supply of quality seeds, and also to create awareness about new varieties among the farmers ❖ Farmer told that the number of pods per plant and yield was more in demonstration (i.e. 70 to 80 pods per plant) than the check due to management practices *viz*., seed treatment with biocontrol agents, gypsum application, balanced fertilizer application, herbicide application and management of pest and diseases guided by TNAU Scientists.
9.	**Demonstration of NCOF waste decomposer for decomposition sugarcane waste** ❖ NCOF availability has to be ensured in Tamil Nadu
10.	**Demonstration of ICM practices of Blackgram (VBN-8)** ❖ Farmers expressed balckgram (VBN-8) suitable for cultivation in rabi seasons of Cuddalore district. ❖ The average yield is 8.35 kg/ha which is 21.0 percent increase over MDU 1 ❖ Farmer were found to be highly resistance to Yellow Mosaic Virus (YMV), resistance to leaf crinkle and moderate resistance to Powdery mildew diseases
11.	**Demonstration of fodder bank for livestock** ❖ Five animals can be feed throughout the year ❖ The Co(BN)-5 setts are distributed to other farmers for Rs.0.75 paise/sett and additional income to the farmer ❖ Using mixed fodder to fed the livestock milk yield is increased (0.5-1 litre/animal)
12	**Demonstration of composite fish culture** ❖ Farmers were expressed maximum fish production is obtained in this method, with lesser cost and variety of fish produced is much higher as compared to monoculture. ❖ Farmers are very much happy about achieving maximum yield in composite fish farming and moreover available food in the pond is effectively utilised.

e. Farmers' reactions on specific technologies

S. No	Feed Back
1.	**Demonstration of paddy variety ADT 53 district** ❖ Disseminate the values of seed production with integrated approach towards availability of high quality seeds to the farmers ❖ ADT 53 paddy variety can be upscaled in convergence mode for easy availability of seed
2.	**Demonstration of paddy ADT(R) 51 in SRI system in Cuddalore district** ❖ Disseminate the values of seed production with integrated approach towards availability of high quality seeds to the farmers ❖ ADT 51 paddy variety can be upscaled in convergence mode for easy availability of seed.
3.	**Variety VTL 10 MN mixture application Organic manure application (vermi compost)** ❖ VTL 10 performing better in kharif season under saline soil condition and seed availability has to be ensured in coming season
4.	**Demonstration of ICM practices in paddy cultication in salt affected soil** ❖ ICM practices under saline soil has given good yield of TRY 3.
5.	**Demonstration of blast disease management in rice** ❖ The farmer spent too much on fungicides for the management of blast disease during samba, however with limited control only. The demonstrated technology reduced the cost of blast management significantly. ❖ Though the farmers sprayed several times, satisfactory control of blast was not achieved before. After adopting technology demonstrated, they were able to control the blast disease in a sustainable manner. ❖ The farmers opined that quality bio-control agents are not available in local market. To overcome this problem, farmers were advised to use the bio-control agent (Pseudo*monas fluorescens*) produced and sold in KVK, Vridhachalam.
6.	**Demonstration of HYV, seed production in participatory mode in groundnut var.VRI 8** ❖ The farmer wanted bold seeded variety and need groundnut seeds in right time and season. ❖ Scaling-up of improved groundnut varieties through established seed system in various cropping systems of smallholder farmers. ❖ After the new varieties have been disseminated in the wider farming population, it will be necessary to conduct formal surveys of technology adoption with larger samples. Follow-up studies with farmers who have been exposed to new varieties in on-farm trials and demonstrations provide a cost-effective approach to assessing the acceptability and adoption potential of new varieties ❖ Farmers need full farm mechanization in groundnut particularly for pulling and stripping operations.
7.	**Demonstration of NCOF waste decomposer for decomposition sugarcane waste** ❖ NCOF waste decomposer decomposes sugarcane trash well and its availability is difficult.

S. No	Feed Back
8.	**Demonstration of ICM practices of Blackgram (VBN-8)** ❖ Distribution of new varieties for mass population ❖ Pulse wonder is really tell about that is magic wonder for farmer and it need locally for farmer benefits
9.	**Demonstration of fodder bank for livestock** ❖ We are lack in this sector to improve milk yield and thickness of milk ❖ For next year also upsaled this technology with newly released crop for benefits of allied sector
10.	**Demonstration of composite fish culture** ❖ In continuation of this technology with new varieties and training on feed management to increase the fish weight

f. Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	5	17.09.19 28.01.20 31.01.20 04.02.20 13.02.20	142	-
2	Farmers Training	8	18.07.19 05.11.19 21.11.19 22.11.19 20.12.19 07.11.19 21.11.19	421	-
3	Media coverage	-	-	-	-
4	Training for extension functionaries	1	21.10.19	38	ICM practices for paddy, salt affected soil management and pulses production technologies.

g. Performance of Frontline demonstrations

i) 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)			
			Demo	Check			Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
							High	Low	Average										
Pulses																			
	Crop Improvement	Demonstration of ICM practices of Blackgram (VBN-8)	VBN-8	MDU-1	10	4	8.35	7.80	8.1	6.7	21	29650	54970	25280	1.85	23475	39891	16415	1.70
Oilseeds																			
	Crop Improvement	Demonstration of HYV, seed production in participatory mode in groundnut var.VRI 8	VRI 8	GJG7	10	2	43.26	41.18	42.22	30.61	38	102567	253320	150753	2.47	108965	183840	74875	1.69
	Crop Improvement	Demonstration and seed production in farmer participatory mode in Gingelly var.VRI 3	VRI 3	Local	25	10	14.0	12.56	13.28	7.05	88	36658	132800	96142	3.62	29942	70500	40558	2.35
Cereals																			
	Variety	Demonstration of ADT 53 paddy	ADT 53	ADT 45	10	4	72.0	69.84	70.92	61.84	15	56074	105228	49154	1.88	57650	92760	35110	1.61
	Crop Improvement	Demonstration of paddy ADT 51 seed production by farmer participatory mode	ADT 51	BPT 5204	10	4	70.56	67.52	69.04	60.24	15	54354	103560	49206	1.91	62315	90360	28045	1.45
	Crop Improvement	Demonstration of ICM practices in paddy cultication in salt affected soil	TRY 3	CO 43	10	4.0	61.60	57.70	58.85	52.35	11.0	49680	88268	31230	1:1.63	47750	71981	24231	1:1.51
	Integrated disease management	Demonstration of blast disease management in rice	BPT 5204	BPT 5204	10	4	68	63	65	59	10	54500	97500	43000	1:1.79	57500	88500	31000	1:1.54

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										
Commercial crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sugar cane	Resource conservation	Sugarcane trash composting with NCOF waste decomposer	COC 86032	COC 86032	10	4.0	-	-	Organic carbon 0.42 Avail N 155.2 Avail P 27.8 Avail K 209.2 Maturity period 66 days	Organic carbon 0.45 Avail N 160.5 Avail P 34.8 Avail K 206.9 Maturity period 52 days	-	1590	NA	NA	NA	2190	NA	NA	NA
Millets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	ICM	Demonstration of ICM practices in bhendi	CO-4	Sakthi	10	4 ha	274.1	147.5	210.8	159.4	32	70000	174400	104400	1:2.68	70000	127520	57520	1:1.45
	ICM	Demonstration of ICM practices in water melon	Arka Akash	NS-192	10	4 ha	259.0	201.0	302.0	230.0	76	65000	181200	116200	1:1.64	65000	138000	73000	1:1.53
Fodder	Fodder Bank	Demonstration of fodder bank for livestock	Co FS 31	NIL	10	4	12.8	10.2	11.6	• Five animals can be feed throughout the year • The Co(BN)-5 setts are distributed to other farmers for Rs.0.75 paise/Sett • Using mixed fodder to fed the livestock milk yield is increased (0.5-1 litre/animal)									
			Co (BN) 5	NIL			36.7	29.3	40.8										
			Hedge lucerne	NIL			15.1	11.45	16.4										
			Velimasal	NIL			52.6	38.2	44.4										
	Cropping system	Demonstration of high yielding multifunctional industrial agroforestry trees (Casuarina MTP 2)	Trial is under progress																

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 Wt in kg		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo (Egg)	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Poultry	Production and management	Demonstration of TANUVAS Aseel for backyard poultry	10	10	11.9	8.3	43.00	3.4	2.85	750	2401	3151	1:5.2	500	629	1129	1:3.26

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)
Fisheries	Production and feed management	Demonstration of composite fish culture	10	10	6585	5410	22.0	Average weight of individual fish - 950 g	Average weight of individual fish - 700 g	20630	41830	21200	2.03	19500	35200	15700	1.81

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

iv) Frontline demonstrations on Other enterprises: Nil

v) Frontline demonstrations on Women Empowerment: Nil

vi) Frontline demonstrations on Farm Implements and Machinery: Nil

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	Knowledge gain (%)		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)
Vegetables		Demonstration on nutri garden-Honestead	10	10				64	13	1810	2652	4462	1:3.47	-	-	-	-

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

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										
Blackgram	NFSM/ ICAR	Varietal demonstration,ICM,IWM,IPM		VBN 8	MDU 1	50	20	9.35	7.80	8.52	750	16.6	30354	57927	27574	1.91	26251	46018	19767	1.75

ii) Other Source funded FLDS in Livestock: Nil

iii) Other Source funded FLDS in Fisheries: Nil

iv) Other Source funded FLDS in Other enterprises: Nil

v) Other Source funded FLDS in Women Empowerment : Nil

vi) Other Source funded FLDS in Farm Implements and Machinery : Nil

4. TRAINING PROGRAMMES

4.1. Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Integrated Farming	1	75		75	5	-	5	80	-	80
Micro Irrigation/irrigation	-	-	-	-	-	-	-	-	-	-
Seed production	5	356	96	452	98	48	146	454	144	598
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	6	155	44	199	31	24	55	186	68	254
Total	**12**	**586**	**140**	**726**	**134**	**72**	**206**	**720**	**212**	**932**
II Horticulture										
a) Vegetable Crops										
Nursery raising	1	30	0	30	6	0	6	36	0	36
Others (pl specify)	2	26	12	38	8	5	13	34	17	51
Total (a)	**3**	**56**	**12**	**68**	**14**	**5**	**19**	**70**	**17**	**87**
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	2	56	14	70	6	12	18	62	26	88
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
Total (d)	**2**	**56**	**14**	**70**	**6**	**12**	**18**	**62**	**26**	**88**
GT (a-g)	**5**	**112**	**26**	**238**	**20**	**17**	**37**	**132**	**43**	**175**
Nutrient Use Efficiency	1	203	46	249	0	0	0	203	46	249
Balance use of fertilizers										
Soil and Water Testing	3	96	29	125	16	24	40	112	53	165
Others (pl specify)										
Total	**4**	**299**	**75**	**374**	**16**	**24**	**40**	**315**	**99**	**414**
IV Livestock Production and Management										

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Poultry Management	2	48	17	65	6	9	15	54	26	80
Total	**2**	**48**	**17**	**65**	**6**	**9**	**15**	**54**	**26**	**80**
VI Agril. Engineering										
Farm Machinary and its maintenance	1	44	9	53	19	4	23	63	13	76
Total	**1**	**44**	**9**	**53**	**19**	**4**	**23**	**63**	**13**	**76**
IX Production of Inputs at site										
Seed Production	3	85	16	101	36	19	55	121	35	156
Planting material production	3	58	19	77	28	7	35	86	26	112
Vermi-compost production	1	15	4	19	2	3	5	17	7	24
Total	**7**	**158**	**39**	**197**	**66**	**29**	**95**	**224**	**68**	**292**
X Capacity Building and Group Dynamics										
Entrepreneurial development of farmers/youths	2	68	13	81	17	4	21	85	17	102
Total	**2**	**68**	**13**	**81**	**17**	**4**	**21**	**85**	**17**	**102**
XI Agro-forestry										
Production technologies	1	22	8	30	10	8	18	32	16	48
Total	**1**	**22**	**8**	**30**	**10**	**8**	**18**	**32**	**16**	**48**
GRAND TOTAL	**34**	**1337**	**327**	**1664**	**288**	**167**	**455**	**1625**	**494**	**2119**

4.2 Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	52	3	55	28	13	41	80	16	96
Resource Conservation Technologies	1	15	4	19	12	8	20	27	12	39
Cropping Systems	2	27	5	32	15	6	21	42	11	53
Crop Diversification	-	-	-	-	-	-	-	-	-	-
Integrated Farming	1	22	6	28	11	3	14	33	9	42
Micro Irrigation/irrigation	1	15	2	17	9	2	11	24	4	28
Seed production	6	115	6	121	10	14	24	125	20	145
Nursery management										
Integrated Crop Management	6	168	70	238	33	39	72	201	109	310
Soil & water conservatioin	1	25	0	25	1	0	1	26	109	310
Total	**19**	**439**	**96**	**535**	**119**	**85**	**204**	**558**	**181**	**739**
II Horticulture										
a) Vegetable Crops										
Others (pl specify)	4	65	33	98	12	7	19	77	40	117
Total (a)	**4**	**65**	**33**	**98**	**12**	**7**	**19**	**77**	**40**	**117**
b) Fruits										
Processing and value addition	2	18	45	63	5	16	21	23	61	84
Total (d)	**2**	**18**	**45**	**63**	**5**	**16**	**21**	**23**	**61**	**84**
e) Tuber crops										
g) Medicinal and Aromatic Plants										
GT (a-g)	**6**	**83**	**78**	**161**	**17**	**23**	**40**	**100**	**101**	**201**
III Soil Health and Fertility Management										
Soil and Water Testing	2	45	15	60	12	8	20	57	23	80
Others (pl specify)										
Total	**2**	**45**	**15**	**60**	**12**	**8**	**20**	**57**	**23**	**80**
IV Livestock Production and Management										
Poultry Management	2	14	8	22				14	8	22
Total	**2**	**14**	**8**	**22**				**14**	**8**	**22**
V Home Science/Women										

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
empowerment										
Farm Machinary and its maintenance	2	27	2	29	13	2	15	40	4	44
Total	**2**	**27**	**2**	**29**	**13**	**2**	**15**	**40**	**4**	**44**
VII Plant Protection										
IX Production of Inputs at site										
Seed Production	4	28	23	51	27	9	36	55	32	87
Vermi-compost production	2	33	6	39	17	8	25	50	14	64
Total	**6**	**61**	**29**	**90**	**44**	**17**	**61**	**105**	**46**	**151**
X Capacity Building and Group Dynamics										
Entrepreneurial development of farmers/youths	2	29	2	31	14	1	15	43	3	46
Total	**2**	**29**	**2**	**31**	**14**	**1**	**15**	**43**	**3**	**46**
GRAND TOTAL	**39**	**698**	**230**	**928**	**219**	**136**	**355**	**917**	**366**	**1283**

4.3 Farmers' Training including sponsored training programmes – CONSOLIDATED (On + Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	52	3	55	28	13	41	80	16	96
Resource Conservation Technologies	1	15	4	19	12	8	20	27	12	39
Cropping Systems	2	27	5	32	15	6	21	42	11	53
Integrated Farming	2	97	6	103	16	3	19	113	9	122
Micro Irrigation/irrigation	1	15	2	17	9	2	11	24	4	28
Seed production	11	471	102	573	108	62	170	579	164	743
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	12	323	114	437	64	63	127	387	177	564
Soil & water conservatioin	1	25	0	25	1	0	1	26	109	310
Total	**31**	**1025**	**236**	**1261**	**253**	**157**	**410**	**1278**	**393**	**1671**
II Horticulture										
Nursery raising	1	30	0	30	6	0	6	36	0	36
Others (pl specify)	6	91	45	136	20	12	32	111	57	168
Total (a)	**7**	**121**	**45**	**166**	**26**	**12**	**38**	**147**	**57**	**204**
Processing and value addition	4	74	59	133	11	28	39	85	87	172
Total (d)	**4**	**74**	**59**	**133**	**11**	**28**	**39**	**85**	**87**	**172**
e) Tuber crops										
GT (a-g)	**11**	**195**	**104**	**399**	**37**	**40**	**77**	**232**	**144**	**376**
Nutrient Use Efficiency	1	203	46	249	0	0	0	203	46	249
Balance use of fertilizers										
Soil and Water Testing	5	141	44	185	28	32	60	169	76	245
Total	**6**	**344**	**90**	**434**	**28**	**32**	**60**	**372**	**122**	**494**
IV Livestock Production and Management										
Poultry Management	4	62	25	87	6	9	15	68	34	102
Total	**4**	**62**	**25**	**87**	**6**	**9**	**15**	**68**	**34**	**102**
VI Agril. Engineering										
Farm Machinary and its maintenance	3	71	11	82	32	6	38	103	17	120
Total	**3**	**71**	**11**	**82**	**32**	**6**	**38**	**103**	**17**	**120**
VII Plant Protection										
IX Production of Inputs at site										

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Seed Production	7	113	39	152	63	28	91	176	67	243
Planting material production	3	58	19	77	28	7	35	86	26	112
Vermi-compost production	3	48	10	58	19	11	30	67	21	88
Total	**13**	**219**	**68**	**287**	**110**	**46**	**156**	**329**	**114**	**443**
Entrepreneurial development of farmers/youths	4	97	15	112	31	5	36	128	20	148
Total	**4**	**97**	**15**	**112**	**31**	**5**	**36**	**128**	**20**	**148**
XI Agro-forestry										
Production technologies	1	22	8	30	10	8	18	32	16	48
Total	**1**	**22**	**8**	**30**	**10**	**8**	**18**	**32**	**16**	**48**
GRAND TOTAL	**73**	**2035**	**557**	**2592**	**507**	**303**	**810**	**2542**	**860**	**3402**

4.4 Training for Rural Youths including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Commercial fruit production	1	16	8	24	5	3	8	21	11	32
Seed production	5	1113	21	134	39	4	43	152	25	177
Mushroom Production	2	16	32	48	8	15	23	24	47	71
Value addition	1	23	27	50	13	15	28	36	42	78
Post Harvest Technology	1	15	18	33	14	8	22	29	26	55
TOTAL	**10**	**183**	**106**	**289**	**79**	**45**	**124**	**262**	**151**	**413**

4.5 Training for Rural Youth 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
Integrated farming	1	43	11	54	11	4	15	54	15	69
Seed production	6	133	25	158	28	15	43	161	40	201
Mushroom Production	1	34	9	43	6	2	8	40	11	51
Value addition	3	19	37	56	1	28	40	31	65	96
Small scale processing	2	29	13	42	8	5	13	37	18	55
TOTAL	**13**	**258**	**95**	**353**	**65**	**54**	**119**	**323**	**149**	**472**

4.6 Training for Rural Youths 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
Commercial fruit production	1	16	8	24	5	3	8	21	11	32
Integrated farming	1	43	11	54	11	4	15	54	15	69
Seed production	11	1246	46	292	67	19	86	313	65	378
Mushroom Production	3	50	41	91	14	17	31	64	58	122
Value addition	4	42	64	106	14	43	68	67	107	174
Small scale processing	2	29	13	42	8	5	13	37	18	55
Post Harvest Technology	1	15	18	33	14	8	22	29	26	55
TOTAL	**23**	**441**	**201**	**642**	**144**	**99**	**243**	**585**	**300**	**885**

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	8	190	116	306	60	40	100	250	156	406
Integrated Pest Management	10	250	110	360	76	28	104	326	138	464
Integrated Nutrient management	3	60	75	135	27	13	40	87	88	175
Protected cultivation technology	12	360	128	488	16	19	35	376	147	523
Capacity building for ICT application	1	45	23	68	13	15	28	58	38	96
Livestock feed and fodder production	1	27	18	45	9	12	21	36	30	66
TOTAL	**35**	**932**	**470**	**1402**	**201**	**127**	**328**	**1133**	**597**	**1730**

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	15	12	27	8	9	17	23	21	44
Livestock feed and fodder production	1	13	8	21	5	12	17	18	20	38
TOTAL	**2**	**28**	**20**	**48**	**13**	**21**	**34**	**41**	**41**	**82**

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	9	205	128	333	68	49	117	273	177	450
Integrated Pest Management	10	250	110	360	76	28	104	326	138	464
Integrated Nutrient management	3	60	75	135	27	13	40	87	88	175
Protected cultivation technology	12	360	128	488	16	19	35	376	147	523
Capacity building for ICT application	1	45	23	68	13	15	28	58	38	96
Livestock feed and fodder production	2	40	26	66	14	24	38	54	50	104
TOTAL	**37**	**960**	**490**	**1450**	**214**	**148**	**362**	**1174**	**638**	**1812**

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	**7**	**397**	**100**	**497**	**84**	**45**	**129**	**481**	**145**	**626**
Pulse commodity group	**25**	**200**	**80**	**280**	**50**	**45**	**95**	**250**	**125**	**375**
Pesticide free village group	**25**	**205**	**80**	**285**	**60**	**30**	**90**	**265**	**110**	**375**
Total	**50**	**405**	**160**	**565**	**110**	**75**	**185**	**515**	**235**	**750**
GRAND TOTAL	**57**	**802**	**260**	**1062**	**194**	**120**	**314**	**996**	**380**	**1376**

4.11 Name of sponsoring agencies involved: ICAR-ATARI and TN-IAMP-world bank

4.12. Details of vocational training programmes carried out by KVKs for rural youth: Nil

5. EXTENSION PROGRAMMES

5.1 Extension programmes conducted

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	150	172	42	150
Diagnostic visits	65	261	32	65
Field Day	8	421	10	431
Group discussions	18	37	26	18
Kisan Ghosthi	2	62	5	2
Film Show	4	350	25	375
Self -help groups				
Kisan Mela	4	905	48	4
Exhibition	10	Mass	75	10
Scientists' visit to farmers field	126	512	59	126
Plant/animal health camps	3	135	14	3
Farm Science Club				
Ex-trainees Sammelan				
Farmers' seminar/workshop	4	65	12	4
Method Demonstrations	12	500	26	12
Celebration of important days	2	110	6	2
Special day celebration	2	1154	58	2
Exposure visits	5	90	5	5
Others (pl. specify)				
Total	**415**	**4774**	**443**	**5217**

5.2 Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	
Extension Literature	5
News paper coverage	3
Popular articles	2
Radio Talks	4
TV Talks	2
Animal health camps (Number of animals treated)	
Others (pl. specify)	4
Total	

6. MOBILE ADVISORY SERVICES

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

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	159	3281	-	-	-	-	-	-	-	-	51	337	210	3618
Total	**159**	**3281**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**51**	**337**	**210**	**3618**

6.3 MOBILE ADVISORY SERVICES THROUGH OTHERS

No of registered farmers:

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	127	267	-	-	-	-	-	-	18	75	-	-	145	267
Total	**127**	**267**	**-**	**-**	**-**	**-**	**-**	**-**	**18**	**75**	**-**	**-**	**145**	**267**

7. Details of technology week celebrations: Nil

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	
					Free seed			Priced seed				
			Quantity (q)	Value (Rs)	Quantity (q)	No of farmers	Value (Rs)	Quantity (q)	No of farmers	Value (Rs)	Quantity (q)	Value (Rs)
CEREALS	Wheat											
	Paddy	TKM 13	154	539000	-	-	-	154	105	539000	-	-
	Total Cereals		154	539000	-	-	-	154	105	539000	-	-
OIL SEEDS												
	Sesame	VRI 3	7.45	111750	1.2	60	18000	6.25	154	93750	-	-
	Total Oil Seds		7.45	111750	1.2	60	18000	6.25	154	93750	-	-
PULSES												
	Black gram	MDU 1	33.01	313595	-	-	-	8.5	45	80750	24.5	232750
	Total Pulses		33.01	313595	-	-	-	8.5	45	80750	24.5	232750
	Grand Total of Seeds		194.46	964345	1.2	60	18000	168.75	304	713500	24.5	232750

8.2 Production of planting materials by the KVKs (seedlings, cuttings. Slips in numbers)

Enterprise	Name of crop	Variety	Planting material produced		Planting material supplied to farmers						Planting material supplied to other agencies	
					Free supply			Priced				
			Quantity (Nos)	Value (Rs)	Quantity (Nos)	No of farmers	Value (Rs)	Quantity (Nos)	No of farmers	Value (Rs)	Quantity (Nos)	Value (Rs)
VEGATABLES	Brinjal seedlings											
	Chilli seedlings	Priyanka	300	300	-	-	-	300	10	300	-	-
	Total Vegetable planting materials		300	300	-	-	-	300	10	300	-	-
FRUITS	Aonla	-	-	-	-	-	-	-	-	-	-	-
	Jack fruit (Grafts)	PL	200	1500	7	3	525	193	48	1447	-	-

		R 1		0						5		
	Total Fruit planting materials		200	15000	7	3	525	193	48	14475	-	-
cuttings		-	-	-	-	-	-	-	-	-	-	-
	Teak	Local	1718	17180	-	-	-	1068	123	10680	650	6500
	Total forest and plantation crops		1718	17180	-	-	-	1068	123	10680	650	6500
Any other planting material sold by numbers	Cashew grafts	VRI 3	4532	108768	-	-	-	1532	48	36768	3000	72000
	Total Commercial Crops		**4532**	**108768**	-	-	-	1532	48	36768	3000	72000
	Grand Total of Seeds		6750	141248	7	3	525	3093	229	6222 3365	3650	78500

8.3 Production of Bio-Products

Category	Name of the product	Commercial name (if any)	Bio-products produced		Bio-products supplied to farmers						bio-products supplied to other agencies	
			Quantity (kg)	Value (Rs)	Free distribution			Priced				
					Quantity (kgs)	No of farmers	Value (Rs)	Quantity (kgs)	No of farmers	Value (Rs)	Quantity (kgs)	Value (Rs)
Bio-fertilizers												
	Azolla		5	500	-	-	-	5	10	500	-	-
	Total bio-fertilizers		5	500	-	-	-	5	10	500	-	-
Bio-inputs												
	Vermicompost		1598	20134	-	-	-	1098	15	13834	500	6300
	Total bio-inputs		1598	20134	-	-	-	1098	15	13834	500	6300
Bio-Pesticides												
for insect pests	*Trichoderma viridi*		105	14835	-	-	-	25	10	3425	80	10960
Nematodes	*Psuedomonas*		227	31099	-	-	-	97	32	13289	130	17810
	Total bio-pesticides		**332**	**45484**	**-**	**-**	**-**	**122**	**42**	**16714**	**210**	**28770**
	Total bio-products		**1935**	**66118**	**-**	**-**	**-**	**1225**	**67**	**31048**	**710**	**35070**

8.4 Production of livestock materials

Category	Name of the livestock/fish/feed	Variety/improved species name/Commercial name (if any)	Production		Supplied to farmers						Supplied to other agencies	
			Quantity (No)	Value (Rs)	Free distribution			Priced				
					Quantity (No)	No of farmers	Value (Rs)	Quantity (No)	No of farmers	Value (Rs)	Quantity (No)	Value (Rs)
Goat and Sheep												

	Goat	Thalacherry	4	72000	-	- -	-	3	2	20550	-	-
	Total goat and sheep		4	72000	-	-	-	3	2	20550	-	-
	Grand Total Livestock and fishery		4	72000	-	-	-	3	2	20550	-	-

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	362	100	340	13	36200
Soil Health Cards (SHC)	303	83	63	10	30300

Samples	**No.of Samples**	**No.of Farmers**	**No.of Villages**	**Amount realized (Rs.)**
Water	**45**	**45**	**21**	**2650**
Total	**45**	**45**	**21**	**2650**

10. SCIENTIFIC ADVISORY COMMITTEE

Date of SAC meeting	**Number of members attended**
13.02.2020	32

Proceedings of 23nd Scientific Advisory Committee Meeting conducted at KVK, Vridhachalam, Cuddalore District

The 23rd Scientific advisory Committee Meeting was held at KVK, Vridhachalam on 13.02.2020 under the Chairmanship of Dr. M. Jawaharlal, the Director of Extension Education, Tamil Nadu Agricultural University, Coimbatore, in the presence of Dr. A.Bhaskaran, Principal Scientist, ATARI, Hyderabad, and Mr.G.R.Murugan, Joint Director of Agriculture, Cuddalore District.

The following members have participated in the Scientific Advisory Committee meeting.

Chairman:

Dr. M. Jawaharlal
Director of Extension Education
Tamil Nadu Agricultural University
Coimbatore -3.

The meeting was commenced with lighting of Kuthuvilakku by the dignitaries. The Programme Coordinator of KVK, Vridhachalam, Dr. S. Kannan welcomed the august gathering. He presented the action taken report on the recommendations and suggestions made during the 22nd Scientific Advisory Committee meeting. During the meeting the following recommendations were given by the Chairman and members for action plan for forth coming year.

Members:

1. Dr. A.Bhaskaran
   Principal Scientist,
   ICAR-Agricultural Technology Application Research Institute
   Zone X, Hyderabad

2. Dr. A.Mothilal
   Professor and Head
   Regional Research Station
   Vridhachalam

3. Dr. M.Jayachandran
   Professor and Head
   Sugarcane Research Station
   Vridhachalam

4. Dr.M.Senthil Kumar
   Assistant Professor (AEX) & Nodal Officer of KVKs,
   DOEE, TNAU, Coimbatore-3.

5. Mr.G.R.Murugan
   Joint Director of Agriculture
   Cuddalore – 607 001

6. Tmt. J.Bhuvanesvari
   Assistant Director of Horticulture
   Kammapuram

7. P.Jothimani
   Lead district Manager
   Indian Bank
   Cuddalore

8. S.Hariharaputran

District Development Manager (DDM)
NABARD
Cuddalore.

9. Tmt.S.Andal
Protection officer
District Social Welfare Officer
Dept. of Social Welfare
Cuddalore.

10. Mr.N.Elangovan
Joint Director/General Manager
District Industrial Centre
Cuddalore

11. Th.T.Chandrasekaran
Assistant Engineer
Dept. of Agricultural Engineering

12. Mr.P.M.Sundaram
Junior Inspector of Sericulture
Ezhuchatram road
Vazhudhareddy,
Villupuram-605 602

13. Th.E.Kathavarayan
Deputy Director of Fisheries
Cuddalore

14. Mr.M.Arumugam
Forester
Villupuram Range

15. Th. D.Senthil Kumar
Programme Executive
All India Radio
Puducherry

16. R.Ram Prasath
Transmission Executive,
Doordarshan Kendra
Puducherry

17. Dr.R.Ponnambalam

Assistant Director
Dept .of Animal Husbandry
Vridhachalam

SAC Farmer members:

18. Thiru. A.S.V. Velmurugan
Agaram Alambadi
Bhuvanagiri-608 702
19. Th.K.Sakthivel
S/o Sundaramurthy
Sathukudal
Vriddhachalam-606 110
20. Tmt. S.Pounambal
K.Ilamangalam
Vriddhachalam
21. Tmt. S.Sagunthalai
W/o Deivanayagam
Sri Sathamangalam
Gunamangalam, Srimushnam.

22. **Member Secretary**
The Programme Coordinator
Krishi Vigyan Kendra,
Vridhachalam – 606 001
Cuddalore District

The salient achievements of OFTs, FLDs, trainings and other extension activities conducted during the year 2018-19 were presented by the SMS of the KVK.

DEE, TNAU, Coimbatore

1. Promotion of laser irrigation through demonstrations and trainings.
2. Popularize the Agro-forestry crop through trainings and demonstration.
3. Encourage seed production through farmer's participatory mode.

ATARI, Hyderabad

4. Every Subject Matter Specialist should contribute to increase the Revolving fund.
5. Update contact farmers list in m-Kissan portal

Joint Director of Agriculture

6. Create awareness to farmers on micro-irrigation and its maintenance to avoid clogging.
7. Introduce less water requiring crops for Cuddalore farmers.

8. Capacity building trainings related to agricultural technologies (Ex. acid treatment, seed drill, pest and disease management, etc).
9. Providing training on region/block specific crops to the Cuddalore district farmers.
10. Management of Rugose white fly in Coconut through demonstrations and trainings.
11. Production of need-based biocontrol agents in KVK itself for supplying to farmers.
12. Sensitization/training on integrated management practices for paddy false smut and blast.
13. Organize awareness programmes for weed management in direct seeded rice cultivation.
14. Promotion of Integrated Farming System (IFS) through trainings.
15. Arranging exposure visit to learn technologies related to small millets.

Deputy Director of Horticulture, Cuddalore

16. Create awareness on protected cultivation of horticultural crops through trainings in collaboration with State dept. of Horticulture and Plantation crops.
17. Create awareness on high-density planting in cashew through trainings.
18. To conduct trainings on pro-tray seedling production technologies.
19. To impart training on value addition in cashew and jack.

Professor & Head, RRS, Vridhachalam

20. Popularize new groundnut varieties to increase area under cultivation.
21. Popularize new sesame variety VRI-3 for large scale adaption.

Professor & Head, SRS, Cuddalore

22. Create awareness to farmers on post-emergence weed management in groundnut.

Deputy Director, Seeds

23. OFT/FLD to be conducted regarding machine harvest in pulses.

NABARD Bank

24. Trainings on IFS have to be given to the Farmers.
25. Create awareness on Kissan Credit Cards to farmers.
26. Promotion of Farmer Producer Companies (FPOs).
27. Farmers may be encouraged to adapt drip irrigation and other water saving technologies.

28. Demonstration and training on bee keeping and mushroom cultivation to the farmers.

Agricultural Engineering, Vridhachalam

29. Create awareness on water harvesting technologies/structures among farmers.
30. Create awareness on solar drier and solar pumps.
31. To conduct demonstrations on the use of repellants against animal trespassing.
32. Training programmes on the use of agricultural farm implements and machineries.

Department of Fisheries, Parangipettai

33. Popularize the Gift tilapia through trainings and demonstration.
34. KVK to conduct trainings on fish farming and arrange exposure visit to model fish farms in collaboration with fisheries department.

Department of Social Welfare, Cuddalore

35. Popularize alternate crops to maize in Mangalur and Nallur blocks.

AIR, Puducherry

36. Information on trainings conducted by KVK to be communicated to AIR, Puducherry in advance to sensitize farmers about the programmes.

SAC Farmer Member Farmer: Velmurugan

37. Farm implements have to be given to farmers on custom hiring basis.
38. Provide training on millet processing technologies.

SAC Farmer Member Farmer: Sakunthala

39. Suitable programmes may be taken-up to increase the income of farm women through backyard poultry rearing.

SAC Farmer Member Farmer: Sakthivel

40. Training on Organic Agriculture

SAC Farmer Member Farmer: Pounambal

41. Training on value addition in millets and vegetables

11. PUBLICATIONS

Publications in journals

S. No	Authors	Year	Title	Journal
1.	K. Natarajan	2019	Seed treatments and storage containers on storability of petunia seeds	International Journal of Current microbiology and applied sciences (IJCMAS) Vol 8 (06)
2.	M. Balarubini, S. Kannan and Venkatalakshmi	2019	Evaluation of Value Addition on Tomato Training Programme	International Journal of Current Microbiology and Applied Sciences
3.	S. Maruthasalam	2019	A new high yielding Spanish bunch groundnut variety BSR 2	Electronic Journal of Plant Breeding. 2019. Vol. 10 (4): 1495-1500. ISSN 0975-928X DOI: 10.5958/0975-928X.2019.00192.3
4.	S. Maruthasalam	2020	Pyramiding insect and disease resistance in an elite indica rice cultivar ASD16	Biologia Plantarum. 2019. Vol. 64: 77-86.

Other publications

S.No	Item	Year	Authors	Title	Publisher
1	Books	-	-	-	-
2	Book chapters / manuals	-	-	-	-
3	Training manuals				
		2020	K. Natarajan, S. Maruthasalam, R. Jahadeesan G. Porkodi K.Vengatalakshmi M.Balarubini, D. Kumar, K.Meenalakshmi, M. Selvi and S. Kannan	Rain water harvesting methods (Tamil)	KVK, Vriddhachalam
		2020	K. Natarajan, S. Maruthasalam, R. Jahadeesan G. Porkodi K.Vengatalakshmi M.Balarubini, D. Kumar, K.Meenalakshmi, M. Selvi and S. Kannan	Seed production technology of Groundnut (Tamil)	KVK, Vridhachalam
		2020	K. Natarajan,	Organic Farming	KVK,

			S. Maruthasalam, R. Jahadeesan G. Porkodi K.Vengatalakshmi M.Balarubini, D. Kumar, K.Meenalakshmi, M. Selvi and S. Kannan	(Tamil)	Vridhachalam
		2019	K.Venkatalakshmi, M.Bala Rubini,k.Natarajan,S .Maruthasalam,R.Ja gadeesan, G.Porkodi and S.Kannan	Drip irrigation	KVK, Vridhachalam
		2019	K.Venkatalakshmi, M.Bala Rubini, K.Natarajan, S.Maruthasalam,	Weather based Agriculture advisory services	KVK, Vridhachalam
		2019	G. Porkodi K. Natarajan, S. Maruthasalam, R. Jahadeesan K.Vengatalakshmi M.Balarubini, S. Kannan	Integrated fertilisezer management	KVK, Vridhachalam
		2020	G. Porkodi S. Kannan	Nutrient deficiency symptom and their management	KVK, Vridhachalam
		2020	G. Porkodi S. Kannan	Sustainable agriculture on soil health management	KVK, Vridhachalam
4	Conference, proceeding papers, popular articles, Bulletins, Short communications	2019	Dr. K. Natarajan	Enhancement of productivity, profitability and income from farmers through seed production of groundnut through cluster approach"	10th National Seed Congress 2019 on "Quality Seed for Farmers' Prosperity" being organized during October 14-16, 2019
		2019	Dr. K. Natarajan	Demonstration of Submergence Tolerant Paddy Variety Cr 1009 Sub 1 for Cuddalore District of Tamil Nadu"	10th National Seed Congress 2019 on "Quality Seed for Farmers' Prosperity" being organized during October 14-16, 2019
		2019	Dr. K. Natarajan	Demonstration on farmer participatory seed production in groundnut for Cuddalore district	National seminar on Climate Smart Agriculture – Challenges & Opportunities held at ADAC&RI, Trichy on 13-14th September 2019
		2019	Dr. K. Natarajan. Dr. S. Harisudan &	Studies on	National seminar on Climate Smart

			Dr. S. Vincent	arresting late formed flowers to improve seed yield in groundnut	Agriculture – Challenges & Opportunities held at ADAC&RI, Trichy on 13-14th September 2019
		2019	Dr. K. Natarajan	Enhancement of productivity, profitability and income from farmers through seed production of groundnut through cluster approach"	10th National Seed Congress 2019 on "Quality Seed for Farmers' Prosperity" being organized during October 14-16, 2019
		2019	K.Venkatalakshmi and S.Kannan	Water tube – Smart Indicator Tool for Alternate Wetting and Drying in Low Land Transplanted Paddy	
		2019	K.Venkatalakshmi and S.Kannan	Assessment of Suitable bio Decomposer for Composting of Sugarcane trash-A novel Technology for Sustaining Soil Health	
		2020	K.Venkatalakshmi	Demonstration of water tube as awater saving tool in paddy	
		2020	K.Venkatalakshmi	Assessment of suitable bio decomposer for compsting sugarcane trash	
5	Technical bulletin/ Folders	2019	Dr. K. Natarajan	Demonstration of Submergence Tolerant Paddy Variety Cr 1009 Sub 1 for Cuddalore District of Tamil Nadu"	10th National Seed Congress 2019 on "Quality Seed for Farmers' Prosperity" being organized during October 14-16, 2019
		2019	K.Venkatalakshmi ,M.Bala Rubini,k.Nataraj an,S.Maruthasala	Jal shakthi abyian	KVK Vridhachalam

			m,R.Jagadeesan, G.porkodi and S.Kannan		
		2019	K.Venkatalakshmi ,M.Bala Rubini,k.Nataraj an,S.Maruthasalam,R.Jagadeesan, G.porkodi and S.Kannan	Panipipe water saving tool in paddy.	KVK Vridhachalam
6	Reports	-	-	-	-
7	others				
	Popular article	2019	K.Venkatalakshmi ,M.Bala Rubini and S.kannan	Ground nut cultivation practices.	Tamil monthly magazine: Vizhithiru Desamay
	Radio talk	2019	K.Venkatalakshmi	Agriculture forest talk-	AIR, Puducherry
	Radio talk	2019	K.Venkatalakshmi	Velanimaiyil neer melanmai	AIR, Puducherry
	TV talk	2019	K.Venkatalakshmi	Elevated goat house-	DDK,Podhigai
	TV talk	2019	K.Venkatalakshmi	Pani pipe -water saving technology in paddy-	DDK,Podhigai
	TV talk		K.Venkatalakshmi	Integrated Farming System - Wetland-	DDK,Podhigai
	TV talk	2019	K.Venkatalakshmi	Crop oosters- DDK,Podhigai	DDK,Puducherry

Newsletter/Magazine

Name of News letter/Magazine	**Frequency**	**No. of Copies printed for distribution**
Uzhavarin Erklam	Quarterly	1000

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

Trainings attended in the relevant field of specialization (Mention Title, duration, Institution, location etc.)

Name of the staff	Title	Dates	Duration	Organized by
Dr. K. Natarajan	National seminar on Climate Smart Agriculture – Challenges & Opportunities held at ADAC&RI, Trichy on	September 13-14, 2019	2 days	ADAC& RI, Trichy
Dr. K. Natarajan	ICAR Short course on - Seed Technology	23rd September to 10th October	15 days	IISS- Mau
Dr. K. Natarajan	10th National Seed Congress 2019 on "Quality Seed for Farmers' Prosperity"	October 14-16, 2019	3 days	IARI, New Delhi
Dr.K.Venkatalakshmi	International conference on Sustainable management of water resources in India	22-23 February 2020	2 days	Annamalai University, Chidambaram UGC-SAP
Dr.K.Venkatalakshmi	National conference on Climate smart agriculture for livelihood security :Challenges and opportunities	13-14 September 2019	2 days	ADAC&RI, Trichirapalli
Dr.K.Venkatalakshmi	National conference on Climate smart agriculture for sustaining crop productivity and improving livelihood security	27-28 February 2020	2 days	Annamalai University, Chidambaram UGC-SAP

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.)**
15	**5**	**500**	**600**	**25**

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

Introduction of alternate crops/ varieties: Nil
Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	2500	350
Pulses	1665	56
Cereals	12000	565
Total		

Farmers-scientists interaction on livestock management: Nil
Animal health camps organized: Nil
Seed distribution in drought hit states: Nil
Large scale adoption of resource conservation technologies: 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
	1	375	1	154	3	95			5	2564		
Total	1	375	1	154	3	95			5	2564		

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**
Certificate & Award	2019	Dr. K. Natarajan - Best KVK Scientist Award for their Excellent contribution in the field of agriculture and allied enterprises held at Lucknow on 12th July 2019 by Dr. Ram Avatar Shiksha Samiti – National	Individual
Certificate & Award	2019	Dr. K. Natarajan - Best poster presentation in the National Seminar on Climate Smart Agriculture held at ADAC & RI, Trichy on 13-14th September 13-14, 2019 by ADAC & RI, Trichy- National	Individual
Certificate & Award	2019	Dr. K. Natarajan - Best oral and poster presentation in the National Seed Congress held at IARI, New Delhi on October 2019 by IARI, New Delhi – National	Individual
Best women worker in KVK	2019	K.Venkatalakshmi Vridhachalam women society	Individual

16. Details of sponsored projects/programmes implemented by KVK

S.No	Title of the programme / project	Sponsoring agency	Objectives	Duration	Amount (Rs)
1.	Pre Rabi Awareness Programme on Paddy and Groundnut	ICAR	To create awareness among the farmers on latest technology and varieties	One day	80000
2.	Fertilizer Application Awareness Programme	ICAR	To create awareness among the farmers on methods and times of fertilizer application	One day	50000
3.	Jal Shathi Abhiyan Mela	ICAR	To create awareness on water conservation	One day	150000
4.	Tamil Nadu Irrigated Agriculture Modernization Project (TN-IAMP)	Tamil Nadu Government and World Bank	More productivity per drop of water in the lower velar sub basin of Cuddalore district. Popularization of new and innovative agricultural technologies among farmers.	5 years	3,32,32,000/-

1. Pre Rabi Awareness training on "Improved production technology for Groundnut and Paddy" at Krishi Vigyan Kendra, Cuddalore

The Krishi Vigyan Kendra, Vridhachalam conducted Pre Rabi Awareness training on "Improved production technology for Groundnut and Paddy" on 30.01.2020. The Pre Rabi Awareness training programme meeting was chaired by Dr.V.Ambedkar, Director of Tamil Nadu Rice Research Station, Tamil Nadu Agricultural University, Aduthurai. Dr. S.Kannan, Programme Coordinator, welcomed the Dignitaries and gave a detailed speech on importance of the Pre Rabi Awareness training programme. Dignitaries from various line departments like Joint Director of Agriculture, Cuddalore, Deputy Director of Agricultural Marketing, Agricultural Officers, Dr.Mothilal, Professor and Head, RRS, Vridhachalam, Dr.K.Natarajan, (SST), Dr. R.Jagadesan, (Horticulture), Dr. K. Venkatalakshmi, (Agronomy), Dr.S.Maruthasalam, (Pl.Patho.), Dr.M.Balarubini, (Agrl. Extension) and Progressive farmers participated in this Programme. A total of 274 farmers and department officials participated in the Programme.

Technical session on package of practices and IPDM on Paddy and Groundnut crop were delivered to the farmers by KVK scientists. Finaly an interaction session between KVK scientist and farmers were contacted and gave solution to the farmers. As a part of the programme exhibition were arranged and 26 stalls of line department, Regional Research Station, Vridhachalam, Krishi Vigyan Kendra, Vridhachalam, Vegetable Research Station, Palur, Organic farmer, Farmer Producer Companies, Agro industries, Seed Company, Fertilizer companies and various micro irrigation companies exhibited their activities. A book on "Groundnut Production Technology", "Water harvesting technology" and Newsletter "Erkalam" were released during the function and distributed VRI-3 gingelly seeds to the FLD farmer. Finally, Dr.K.Natarajan, Assistant Professor (Seed Science and Technology) proposed vote of thanks in the meeting.

2. Jal Shakthi Abhiyan-Kisan Mega mela

Jal Shakthi Abhiyan programme conducted on 3.9.2019 at KVK, Vridhachalam in order to create awareness among farming community, farm women and rural youth. During the mela Hon'ble.Th. T. R.V.S.Ramesh, MP, Cuddalore Constituency . Hon'ble. Th.V.T. KalaiselvanMLA, Vriddhachalam Constituency. Th.Prasanth. IAS, Sub Collector, Vriddhachalam, Thiru. Pradhik Dayal. IAS, Assistant Secretary Dept. of Health and Family Welfare , Ministry of Home and Urban affairs Central Governement, New Delhi. Vridhachaalm sub collector, Joint director of Agriculture, DD Agriculture Marketing, DD Horticulture and DD Department of Agriculture, CENTRAL SCHEME. Professor and Head, RRS, Vriddhchalam, Professor and Head, SRS, Vriddhachalam were participated. Programme Coordinator delivered welcome speech, Special speech was given by all other officials. Total number of participants are 959 nos. among which 809 is farmers and farm women in addition to that 113 nos.is students and 374 nos. is department officials. Various events like 1. Exhibits Arranged for Schemes and activities of Line Departments, School students and College students were arranged innovative models , charts for water saving technology for benefits of farming community , Micro Irrigation companies were exhibited their model ,Books were released on Weather Based Agro Advisory services, Drip Irrigation, Leaf lets on Panipipe and Jal Shakthi Abiyan. Technical lectures were given Assistant Professor (Agronomy). Vote of thanks was given Assistant Professor (Agronomy).

17. SUCCESS STORIES

I) SUCCESS STORY INNOVATIVE FARMER CUM SEED PRODUCER IN PADDY

Name and address of the farmer with Telephone / Mobile Number	S. Chittarasu S/o.Selvamani Melatheru Manakudianiruppu Village , Agramangalam Post Chidambaram Taluk Cuddalore district Mob No: 9443538098 
Situation analysis/Problem statement	❖ Lack of awareness on new varieties of paddy. ❖ Continuous use of local paddy variety and poor yield ❖ Non adoption of ICM technology reduced the yield
Plan, Implement and Support	❖ KVK has intervened and adopted the village for conducting FLD on paddy (CO 52 & TKM 13) during 2018-19. ❖ 10 farmers were selected in Manakudianiruppu village of Keerapalayam block ❖ Critical inputs such as paddy seeds (CO 52 & TKM 13), *Pseudomonas* and Biofertilizer were distributed to the farmers. ❖ Training on paddy seed production technology was given to the farmers. ❖ Demonstration of SRI, Machine transplanting, post emergence herbicide application, DAP Spray and seed production methods were demonstrated to the farmers. ❖ Frequent field visit were made by the KVK Scientist and advised the farmers on pest and disease management.
Output	❖ The farmer has got highest yield of 80.63 q/ha of processed paddy seeds in his demonstration plot (TKM 13) ❖ Because of using right technologies and farm

mechanization he has got higher yield in Paddy (80.63 q/ha)

- Other farmers also got an average yield of 77.19 q/ha with a BC ratio of 2.30 than other variety
- Farmer informed that except basal and top dressing of fertilizers he has not applied pesticides as the crop is not affected by pests and diseases. The variety is suited to the climatic condition and soil of that region. TKM 13 variety had the potential to replace the pests and diseases susceptible BPT 5204 variety

Yield (q/ha)	No. of tillers /plant	Number of grains per panicle	Gross cost (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	BC ratio
Individual farmer						
80.63	28	286	54000	129008	75008	2.38
10 farmer demos						
77.19	**26**	**239**	**53688**	**123583**	**69894**	**2.30**

Outcome

- Farmer is being well recognized in the society and acting as resource farmer for the neighbouring villages.
- He has spread the seed production techniques in paddy and gingelly to more than 500 farmers of Manakudianiruppu and nearby villages
- With the help of NABARD Fund, Major Crop Development Scheme was adopted and implemented in the following villages *viz.*, Manakudianiruppu, T. Neduncheri and nearby villages. With the help of scheme, critical inputs, funds, newer technologies, trainings and marketing were provided to the farmers with his guidance.
- Farmers club will conduct the meeting at every month and give necessary suggestions based on the requirement and also transfer the new technologies
- New technologies will be disseminated regularly to the village by the KVK and RRS Scientists through his motivation
- Regularly attend the technology empowerment programmes of KVK, adopt it and integrate it

Impact	**Media coverages like success stories** ❖ His success is documented and telecasted by Pothigai TV on March 2019 ❖ In Grievences day meeting the District Collector appreciated the farmer for highest yield in paddy and the District Collector advised the other farmer to follow the technologies adopted by him ❖ Due to the impact, the JDA of Cuddalore has gave acceptance to procure the paddy seed (15000 kg) for upscaling the paddy variety TKM 13 in convergence mode ❖ Due to the well functioning and impact created by the farmers, Minister of Agriculture, Agrl Production Commissioner, Commissioner of Agriculture, District Collector, line department officials were visited the village frequently. ❖ He encouraged the farmers to participate in the trainings, exhibitions, seminars organized by line departments of agriculture at District and State level

II) SUCCESS STORY ON INNOVATIVE FARMER CUM SEED PRODUCER

Name and address of the farmer with Telephone / Mobile Number	S. Selvam S/o Sundaramaurthy Reddy street Ayyankurinjipadi Village 607301 Kurinjipadi Taluk, Cuddalore Dist Mob : 7708876142	
Situation analysis/Problem statement	❖ Non adoption of ICM technology reduced the yield in major crop ❖ Non availability of labour during peak season ❖ The continuous use of local variety in pulses and oilseeds reduced the yield ❖ Lack of awareness on farm machinery for post harvest operations	
Plan, Implement and Support	❖ KVK has intervened and adopted the village for conducting FLD on groundnut (VRI8) during 2018-19 ❖ 10 farmers were selected in Ayyankurinjipadi village of Kurinjipadi block ❖ Critical inputs such as groundnut pods (VRI 8), *Trichoderma Viride*, TNAU Groundnut rich and pheromone traps were distributed to the farmers ❖ Training on groundnut production technology was given to the farmers ❖ Technology of seed drill sowing, post emergence herbicide application, groundnut rich application and pheromone trap application were demonstrated to the farmers ❖ Frequent field visit were made by the KVK Scientist and advised the farmers on pest and disease management	

Output	**Adopted Technology by the farmer** **Groundnut** ❖ Use of newly released groundnut varieties like , G7, G9, G20 and VRI 8 ❖ Drip and sprinkler irrigation for groundnut crop whenever water is scarce. ❖ Post emergence herbicide application on 15th to 16th day - Vezir @ 300 ml/acre ❖ Top dressing of fertilizer on 20th, 60th and 80th day - 10:26:26 combination - 20 kg /acre ❖ Biological method of pest control • 30th day – Neem oil (30 ml) + Pungam oil (30 ml)+ 10 g camphor + 20 ml alcohol per tank • 45th day – Neem oil (50 ml) + Pungam oil (50 ml)+ 10 g camphor + 20 ml alcohol per tank • 60th day – Neem oil (60 ml) + Pungam oil (60 ml)+ 15 g camphor + 20 ml alcohol per tank • 80th day – Neem oil (60 ml) + Pungam oil (60ml)+ 15 g camphor + 20 ml alcohol per tank ❖ Sowing and harvesting will be done in right time with the use of machineries because groundnut cultivation is laborious than other crops. ❖ Because of using right technologies and farm mechanization he has got higher yield (75 q/ha) in groundnut. **Sesame** ❖ Seed production in newly released Gingelly cultivar VRI 3 in the alfi soil tract and adoption of right production practices ❖ Seed treatment with *Pseudomonas fluourescens*, *Trichoderma viride*, Phosphobacteria and Azospirillum ❖ Soil application of MnSO4 @ 4 kg/acre ❖ Use of Pre emergence herbicide (Pendimethalin) application to reduce weed menace ❖ Practising line sowing of gingelly seeds

- Maintaining optimum plant population and earthing up
- Foliar spray of DAP 2 % (4 kg/acre) and Balanced use of fertilizer

Crop	Yield /acre	Cost of cultivation (Rs.)	Gross income (Rs.)	Net income (Rs.)	BCR
Groundnut	30 q	38000	154000	116000	4.05
Sesame	900 kg	10000	67500	57500	6.75

New package of practices/ management strategies

Groundnut

- Because of labour shortage and drought there is a need for practicing new technology
- The use of machinaries for groundnut harvesting and stripping is needed nowadays because of labour shortage
- Use of pungam oil, neem oil and camphor is a low cost and organic way of pest and disease management option since groundnut is a consumable product.
- The use of water soluble fertilizer will reduce the leaf dropping from leaf formation to harvest stage and keeps the plant green upto maturity and helps in uniform maturity of the pod.

Sesame

- Formation of ridges and furrows will make uniform maturity and prevent lodging and thereby maintaining the population and increase the yield
- Irrigation in broadcasting method promotes water stagnation which may affect the plants. But in ridges and furrows water absorption by plants will take place slowly and uniformly and thereby facilitates growth of the plant in a continuous manner and increase the yield of the plant.
- Foliar spray of DAP and Planofix during flowering and pod formation stage will increase the seed set and thereby the yield.
- Basal application of manganese sulphate before sowing will help in the formation of stout pods and thereby increase the oil content.

Outcome	❖ Farmer is being well recognized in the society and acting as resource farmer for the neighbouring villages. ❖ He spread the Groundnut seed production techniques to more than 1000 farmers of Ayyan kurinjipadi and nearby villages. ❖ Practicing seed production in groundnut and other millets. He formed a commodity group comprising of 100 farmers and marketed the produce to different districts of Tamil Nadu. ❖ Facilitate mass tree planting and establishment of fish pond for the farmers with help of line departments. ❖ New technologies are disseminated regularly to the village by the KVK and RRS Scientists through his motivation ❖ Regularly attend the technology empowerment programmes of KVK, adopt it and integrate it in his farm. ❖ Due to the well functioning and impact created by the farmers, Minister of Agriculture, Agrl. Production Commissioner, Commissioner of Agriculture, District Collector, line department officials are visiting the village frequently.
Impact	**Media coverage's like success stories** ❖ His success story is documented and telecasted by Pothigai TV on March 2019 ❖ His achievements were published in popular dailies like Daily thanthai, Dinamalar, Dinamani and Dinakaran.

III) SUCCESS STORY OF CASHEW FARMER

Panruti is a developing city, municipality and taluk headquarters of Cuddalore district, Tamil Nadu, India. Panruti is located between Cuddalore and Neyveli. Panruti is famous for jackfruit and cashews. The jackfruit grown here is exported worldwide and is very sweet. It is a business center of Cuddalore district. The name Panruti came from *the Tamil words Pann and Urutti* meaning *composing song and music*, as the place is where many saints and great religious singers such as nayanmars and vainavas sung. A 150-year-old government school was built here by the British East India Company and a more-than-1000-year-old temple *Veeratteswarar temple* is nearby in Thiruvathigai.

Panruti is located on the main line of high ways. State highways Chennai-Kumbakonam and Cuddalore-Chittoor passes through Panruti. Panruti is located at 11.77°N 79.55°E. It has an average elevation of 32 metres (104 feet). The Kedilam River flows through the town and Thenpanni river is nearby. Panruti produces cashews, jackfruit, sugar cane and many vegetables. Panruti plays a major role in the cashew export business, exporting to Malaysia, Australia, Singapore, and the United States. It is known for its famous international jackfruit market, from where jackfruit is exported to many other countries. It is also a commercial center of Cuddalore district. The Rathinampillai market located in the center of the city attracts thousands of people every day from morning 5:00 a.m. itself. Nearby villages are Maligampattu, Anguchetty palayam, Chinnapettai, Thiruthuraiyur, Puthupettai or Pudupet, Bandrakottai, Mandhipalayam, Oraiyur, Kadampuliyar, Periyakattupalayam. Many nearby villages are famous for weaving Lungi, and Silk sarees.

Veerasingankuppam is located in Panruti to Vriddhachalam state high way and is 18 km away from Vriddhachalam and 25 km form Panruti.

Th.A.Gnanasekar is residing at Veerasingankuppam village of Panruti taluk, Cuddalore district. He is a progressive farmer. He is 50 years old. He is a diploma (Engineering) holder. He hails from traditional agriculture family. His ancestor's key profession was farming and he continues his family profession, following the motivation of his father. Currently, he owns 20 acres of garden land. The soil type is red sandy loam and is irrigated by borewell. His region is known for cashew cultivation. He is growing cashew in his 20 acres of land. During 2012, his cashew plantation was totally devastated by *Thane* cyclone. His family livelihood was totally under threat due to the loss. He bravely challenged

the situation and wanted to re-establish his plantation. He approached Krishi Vigyan Kendra (KVK), Virddhachalam and state department of Horticulture for technical support and financial assistance respectively. He was covered in *Thane* rehabilitation scheme and was financially supported by State Horticulture department for establishing the cashew plantation in an area of 20.0 acres. The financial assistance was provided to him in the form of digging borewell, electricity connection, free supply of cashew grafts. The complete package technical know-how was given to him by KVK, Vriddhachalam. The technologies taught to him was planting, post planting care, training of plants, integrated nutrient management, efficient use of water, Integrated Pest and Disease Management (IPDM) etc. He has shown keen interest to learn the technologies from KVK, Vriddhachalam. In the year 2016, he once again approached KVK for new innovation techniques to enhance his farm income. He was advised to go for intercropping with blackgram in the alley spaces of cashew plantation. He was also taught about drip cum fertigation using water soluble fertilizer, pruning and foliar pray of nutrients. He grasped the techniques very well and adopted in his plantation. As a result he has got a yield of 320kg/acre cashew nuts and 280kg/acre of blackgram. He has got gross income of Rs. 45000/acre from cashew and Rs.10000/- from blackgram as additional income respectively. The net income that he realized was Rs.40000/acre. The total net income form his 20 acre cashew plantation was 8.0 lakh per year.

Besides, he has recently started his small scale cashew processing unit in his village and is yet to give dividend to him. Overall, he has become a successful lead farmer in cashew and he will soon transform into an entrepreneur.

IV) SUCCESS STORY OF VALUE ADDITION IN JACK FRUIT

Th. K.Vijayakumar is an educated youth in Vegakollai village of Panruti taluk, Cuddalore district. He is a graduate and hails from traditional agriculture family. His place is known for jackfruit cultivation. The unique feature of his locality in respect of jack fruit is bearing in two seasons. In other jack fruit growing places, jack gives yield in only one season (summer), but in his place, jack fruits are available in summer as well as in rabi season (December to February). However, the income generated from jack orchard was meager, as the fruits are highly perishable and lack of proper storage facilities. Besides, there is loss to the farmer due to severe dropping- off of undersized, underdeveloped and half matured fruits, despite initial high fruit set. Keeping these things in mind, Th. Vijayakumar, thought differently to do something to jackfruit growers. This potential, educated youth approached the Krishi Vigyan Kendra (KVK), Virddhachalam for technical innovations and guidance. Subsequently he attended many trainings at Krishi Vigyan Kendra (KVK), Virddhachalam on value addition. He atarted value addition of jackfruit in his home in pilot scale and finetuned his technology in consulatation with Krishi Vigyan Kendra (KVK), Virddhachalam and Indian Institute of Food Processing Technology (IICPT), Thanjavur, Tamil Nadu. Now he is preparing value added products from jack fruit such as jack fruit chips, murukku (Snack), seed flour, fruit candy and got FSSAI certificate. He is marketing the products in his own brand name of “Thembu Food Products”. He has emerged as a successful entrepreneur in jackfruit and is a role model for other educated rural youth of Cuddalore district.

Panruti is a developing city, municipality and taluk headquarters of Cuddalore district, Tamil Nadu, India. Panruti is located between Cuddalore and Neyveli. Panruti is famous for jackfruit and cashews. The jackfruit grown here is exported worldwide and is very sweet. It is a business center of Cuddalore district. The name Panruti came from *the Tamil words Pann and Urutti* meaning *composing song and music*, as the place is where many saints and great religious singers such as nayanmars and vainavas sung. A 150-year-old government school was built here by the British East India Company and a more-than-1000-year-old temple *Veeratteswarar temple* is nearby in Thiruvathigai.

Panruti is located on the main line of high ways. State highways Chennai-Kumbakonam and Cuddalore-Chittoor passes through Panruti. Panruti is located at 11.77°N 79.55°E. It has an average elevation of 32 metres (104 feet). The Kedilam River flows

through the town and Thenpanni river is nearby. Panruti produces cashews, jackfruit, sugar cane and many vegetables. Panruti plays a major role in the cashew export business, exporting to Malaysia, Australia, Singapore, and the United States. It is known for its famous international jackfruit market, from where jackfruit is exported to many other countries. It is also a commercial center of Cuddalore district. The Rathinampillai market located in the center of the city attracts thousands of people every day from morning 5:00 a.m. itself. Nearby villages are Maligampattu, Anguchetty palayam, Chinnapettai, Thiruthuraiyur, Puthupettai or Pudupet, Bandrakottai, Mandhipalayam, Oraiyur, Kadampuliyar, Periyakattupalayam. Many nearby villages are famous for weaving Lungi, and Silk sarees.

Vegakollai is an interior village and is 4 km on eastern direction of Panruti to Kumbakonam high ways and 22 km away from Panruti.

V) SUCCESS STORY OF COTTON FARMER

<table>
<tr><td>Name and address of the farmer with Telephone / Mobile Number</td><td>R. Krishnamurthy
S/o.Ramaamy
Maruthathur, Nallur block
Cuddalore district</td></tr>
<tr><td>Situation analysis/Problem statement</td><td>❖ Lack of awareness on etiology of parawilt in cotton
❖ Lack of knowledge on parawilt management methods</td></tr>
<tr><td>Plan, Implement and Support</td><td>❖ KVK has intervened and analyzed the situation.
❖ Following the field visit, OFT on the “Assessment of methods for management of parawilt in cotton” was conducted in the Maruthathur village of Nallur block during 2018-19.
❖ Ten farmers (1.0 acre each) were selected in the same village for conducting the OFT.
❖ Critical inputs such as cobalt chloride, copper oxychloride, urea and DAP were distributed to the farmers.
❖ Demonstration was given under the field condition.
❖ Regular field visits were made by the KVK Scientist and advised the farmers on parawilt management.</td></tr>
<tr><td>Output</td><td>❖ The farmer has got the highest yield of 27.0 quintals/ha of cotton kapas in his demonstration plot.
❖ The farmer recorded 95% recovery of parawilt affected plants following the imposition of treatment (Spraying of cobalt chloride @10 mg/l (10 ppm) on affected plants within 2 days of onset of symptoms and drenching with mixture of Copper oxychloride (25 g) and 200 g Urea in 10 L of water) whereas in the conventional practice (drenching with 0.3% carbendazim) only 40% of the plants have recovered.
<table>
<tr><th>Yield (q/ha)</th><th>Parawilt (%)</th><th>Percent plant recovered</th><th>Gross cost (Rs./ha)</th><th>Gross return (Rs./ha)</th><th>Net return (Rs./ha)</th><th>BC ratio</th></tr>
<tr><td>27</td><td>18</td><td>95</td><td>93763</td><td>148500</td><td>54737</td><td>1.58</td></tr>
</table></td></tr>
<tr><td>Outcome</td><td>❖ Farmers have gained the knowledge on the etiology of parawilt in cotton and the measures to be taken to contain the problem.
❖ The farmers are frequently contacting the KVK to solve their field problems.</td></tr>
<tr><td>Impact</td><td>❖ The cotton farmers in the village have got good yields and more profit during 2018-19 than the previous years.</td></tr>
</table>

18. CASE STUDIES: (If any 3 to 4 pages, detailed, describing previous experiences, problems identified, details of solution(s) identified and implemented etc.): 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)

Crop / Enterprise	ITK Practiced	Purpose of ITK
Paddy	Vasambu (*Acotus calamus*) powder and cow urine are mixed in the water that has been boiled and cooled over night and the seeds are soaked in the solution. The floating seeds are removed. The remaining seeds are used for sowing.	This serves the dual purpose of seed selection and treatment of seed borne disease
	The place with higher elevation in the field is selected for raising paddy nursery	Flooding is avoided
All crops	Ash is dusted on the germinated paddy nursery before the occurrence of heavy rain.	This practice prevents toppling of seedlings and also accumulation of seedlings on one side
	Farm waste and trash are burnt on the nursery beds. The heat that is generated by burning, sterilizes the soil and some nutrients like potash is added	For effective nutrient management
	A mixture of coconut water and buttermilk is used to increase the number of flowers in paddy. A mixture of 5 liters of coconut water and 5 liters of buttermilk is kept in a mud pot. This pot is buried in the soil for 5-7 days, after that one liter of solution is mixed with 10 liters water to spray on the crop,	For increasing number of flowers in the crop.
	Notchi (*Vitex negundo*) leafs along with stored paddy grain. News paper clippings and herbal leaf mixture.	To repel stored product pests
Pulses	Use of neem oil / red earth	To repel stored product pests in Pulses
	Coating the pulse seeds with arappu leaf powder	To protect the seeds from ants and birds
	Drying of blackgram seeds during new moon time	To protect from pulse beetle infestation
Vegetables	Neem extract/ Pungam Oil/ Panchaghavya	To control sucking pests and borers in vegetables
	Spraying of Lime water for Cucurbitaceous vegetables	To control downy mildew diseases.
Coconut Seedlings	Filling of sand in Coconut seedlings in between fronds	To control Rhinocerous beetle
Coconut Plantation	At the time of Planting of Coconut seedlings in the pit simultaneously planting of Aloe vera	To control root crub and termites.
Animal husbandry	Oral administration Aloe vera & Aanai nerunji leaves	To induce heat in cows
	Oral administration of Betelvines, omam	To solve indigestion problem in goats
	Equal quantity of Naphthalene balls and camphor were mixed with water made into paste and applied on the body of cattle for 2 hours	To control parasites
	Application of fat of pigs/henna leaf paste	To control foot and mouth disease in cattle

21. Impact of kvk activities (not to be restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Groundnut Seed Production by farmer participatory mode	187	78	Rs.45337/ha	Rs. 134488/ha
Gingelly seed production by farmer participatory mode	234	73	Rs. 40558/ha	Rs. 96142/ha
Paddy seed production by farmer participatory mode	534	68	Rs. 25097/ha	Rs. 57073/ha

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

Case1: Demonstration of farmer's participatory seed production of paddy variety TKM 13

a. Background

In Cuddalore District, Paddy crop is cultivated in samba season in an area of 85000 acre. The crop is affected by various pest and diseases during Samba season. Existing varieties were highly susceptible and needs to be replaced with tolerant or resistant varieties. Hence, an FLD with TKM 13 variety was taken up and the susceptible variety BPT 5204 was used as a check. The trial was conducted at Azhichikudi and Manakudianiruppu villages of Bhivanagiri and Keerapalayam block. The crops performed well and provided good economic gain.

b. Output

The results revealed that the paddy varieties TKM 13 (75.05q/ha) recorded higher yield than check (57.56 q /ha). The net return was more in TKM 13, due to high market price (Rs 15.50/kg).

Pest and disease incidence in the varieties assessed*

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

*Mean data of the trial conducted at the farmers' field

The pest and disease incidence in paddy variety TKM 13 was also less. The farmers did not take up any pesticide spray in TKM 13 variety. The crop yielded 7505 kg per hectare with less input on pest and disease management.

c. Out come

The net return received from the crop is Rs 57073 per hectare with the BC ratio of 2.02*

Varieties assessed	Production (kg/ha)	Net Return (Rs)	BC Ratio
BPT 5204	5756	25097	1.40
TKM 13 paddy variety	*7505*	*57073*	*2.02*

*Mean data of the trial conducted at the farmers' field.

d. Present status of the farmers in following the variety paddy TKM 13

- Based on the performance of the paddy variety TKM 13 and its tolerance level to pest and disease incidence during Samba season the farmers were very much satisfied. Hence the programme is being taken up as a convergence mode and seeds will be produced in farmers' participatory seed production programme.

e. Socio economic impact

- As the net return is more due to enhanced marketable price for the variety TKM 13, the farmers wish to go for cultivating the variety and the same is recommended for large scale adoption.
- The farmers visualised the performance of the paddy variety TKM 13 throughout the season with their active participation.
- The participation of the farmers in various domains shows positive impact on acceptance of the variety.
- This year the variety paddy TKM 13 cover an area 10000 ha.

Participation of the farmers in various domains

Domain	Seed treatment	Agronomic practices	Observation on pest and disease	Application of IPM for the pest and disease	Yield assessment
Level of participation	40%	60%	60%	40%	50%

Case 2: Demonstration of farmer's participatory seed production of Groundnut variety VRI 8

In Cuddalore District around 15000 ha is under Groundnut cultivation**.** Based on the interaction with the extension wing and farmers of the district it is realized that a bold seeded variety is needed for rabi season. Hence a variety released by the Tamil Nadu Agricultural University during the year 2016 named VRI 8 was taken up for demonstration during 2018-19. Ten demonstrations were conducted in an area of two hectares.

b. Output

The variety performed well with its special characteristics of

- Parentage : ALR 3/AK 303
- Duration : 105 – 110 days
- Season : Rainfed: April-May, June-July, October-November
- Irrigated: December-January, February-March, April-May
- Yield : Rainfed: 2130 kg/ha (22.0% over VRI 6)
- Irrigated: 2700 kg/ha (26.6% over VRI 6) Highest yield obtained : 5170 kg/ha
- Moderately resistant to late leaf spot and rust
- Shelling outturn 70.0%
- Oil content 49.0%
- Medium bold kernels

c. Outcome

The variety yielded as high as 4411 kg per hectare compared to the check variety VRI 2 (2860 kg per hectare). The net return from VRI 8 was Rs. 134488 per hectare with the BCR of 2.38 and the net return of VRI 2 was Rs. 45337 per hectare with the BCR of 1.41.

d. Present status of the farmers in adopting the variety VRI 8

- Based on the performance of the groundnut variety ***VRI 8*** and its performance the farmers are highly satisfied and requested for the seed material for the ensuing Rabi season. Hence training programme on seed production is proposed and seeds will be produced by adopting farmers' participatory seed production programme.
- This has led to vast spread of the variety in an area of 1000 hectare during 2018-19.

e. Socio economic impact

- ❖ The farmers have realized that the variety is suitable for rabi season especially during North east monsoon.
- ❖ Establishment of a network of small and medium seed growers in rainfed areas for the supply of quality seeds, and also to create awareness about new varieties among the farmers
- ❖ Farmer told that the number of pods per plant and yield was more in demonstration (i.e. 70 to 80 pods per plant) than the check due to management practices viz., seed treatment with bio control agents, gypsum application, balanced fertilizer application, herbicide application and management of pest and diseases guided by TNAU Scientists.
- ❖ Farmer felt that groundnut rich application was easier than DAP application and has the advantage of increasing the pod setting. Drought tolerance was good
- ❖ The successful performance of VRI 8 in terms of yield motivated other farmers in the village to adopt the variety
- ❖ This has led to vast spread of the variety in an area of 1000 hectare during 2018-19.

22. Functional linkage with different organizations

22.a. Functional linkage with different organizations

This Kendra has developed a strong functional linkage with Govt. and Non-Govt. organizations for conducting training programmes, demonstrations, seminar, campaigns, farm advisory service, farmers study tour and other extension activities to achieve the Krishi Vigyan Kendra mandates. The details of the collaborative activities carried out are furnished below.

Name of Organization	Nature of linkage
Dept. of Agriculture	♦ Assessing the training needs of farmers in areas of crop improvement, production, protection and mechanization ♦ Mid monthly and Monthly Zonal Workshop ♦ FLD – Field day ♦ Participated in the training programme ♦ Watershed & Waste land development programme ♦ Seedling supply

	♦ District level farm improvement committee ♦ In service training to AOs /AAOs ♦ Off campus training programme ♦ Farm advisory services ♦ Seed farm- seed production meeting ♦ ATMA implementation
Dept. of Horticulture	♦ Assessing the training needs of farmers in areas of Crop improvement, production, protection and mechanization ♦ Off campus training programme ♦ Collaborative training programme ♦ Seedlings supply ♦ Demonstration ♦ NHM training on cashew, mango, banana, chilies and loose flowers
Annamalai University, Chidambaram	♦ Rural agricultural work experience programme ♦ U.G. and P.G. students visit to KVK ♦ Training to FSC clubs

TANUVAS, UTRC, Cuddalore	♦ Resource persons for training
Agricultural Extension Wing, Department of agriculture (TANCOF)	♦ Off campus training ♦ Seed supply & Watershed development ♦ Training on oil seed production technology
Department of Animal husbandry	♦ Advisory service
Collectorate, Cuddalore	♦ Grievance day meeting ♦ NLC expansion programme-alternate employment for displaced riots ♦ Agricultural production council meeting ♦ Periodical technical / consultative meeting
Mahalir Thittam / DRDA Cuddalore	♦ Sponsored training ♦ SGSY – SHG training ♦ Skill up - gradation programme ♦ Vazhalnthukattuvom project
Higher Secondary Schools	♦ Awareness campaign ♦ NSS campaign
NGOs	♦ Awareness campaign

	♦ Training programme ♦ Demonstration
NABARD, Cuddalore	♦ Farmers group discussion ♦ TTC meetings ♦ Trainings to farmers
Agriculture Engineering Dept. **Govt. of Tamil Nadu**	♦ Rain water harvesting programme ♦ Training on agricultural implements and river basin development ♦ Resource person for department training programmes
ZRC, Coimbatore	♦ Training on power tiller operation, maintenance and its attachments ♦ Implements supply
Dept. of Millets, TNAU, Coimbatore	♦ FLD in kodomillet and maize ♦ Seed supply
Dept. of Forage crops, TNAU, CBE	♦ FLD and OFT on forage crops

NGO- KVKs	♦ Training and exposure visit ♦ Seed materials supply & FLD / OFT discussion
WTC, Tamil Nadu Agricultural University, Coimbatore	♦ Drip and sprinkler unit supply ♦ Technical support ♦ Training on micro irrigation
Indian Bank, Vriddhachalam	♦ Training programmes
AIR, Puducherry	♦ Helps to popularize the latest technology

Farmer's Field School on ecofriendly crop management in Maize

Name of the village: Elangianur , Nallur Block
Number of participants: 30
No of classes: 14

Objectives

- ❖ To educate the farmers about eco friendly crop management techniques in Maize
- ❖ To train the farmers on the use of eco friendly technical inputs and strategies
- ❖ To create awareness about production and marketing of maize

Technology demonstrated

- Seed treatment with biofertilzers and bio control agents

- Seed hardening of maize for drought and dryland crop management and acid delinting in cotton
- Fertilizer management for rainfed and irrigated maize
- Weed management for irrigated and rainfed maize
- TNAU Maize application & Foliar application and management strategies for increasing the yield
- Pest and disease management for irrigated and rainfed maize
- Post harvest operation and management in maize
- Credit facilities and bank loan scheme for starting value addition in maize
- Preparation of panchagavya and spray
- Spray of neem oil and Neem seed kernal extract
- Setting of yellow sticky trap and pheromone trap
- Use of egg parasites for Pest management

Knowledge level in the FFS

- ❖ Pre entry: 72%
- ❖ Post Entry: 91 %

Knowledge spread in the FFS

Category	Pre entry	Post entry	Remarks
Seed treatment with biofertilzers and bio control agents	Partly known	Fully known	Now using
Seed hardening with 2% KH2PO4 for dryland management	Not awarded	partly known	Now using upon availability
Weed management for irrigated and rainfed maize	Partly known	Fully known	Now using
Use of vermicompost	Partly known	Fully known	Now using upon availability
Foliar spray of *Pseudomonas fluorescens* @ 0.2% at 20 and 40 DAP	Not awarded	Fully known	Now using upon availability
Preparation of panchagavya and spray	Awarded but not used	Fully known	Now using
Spray of neem oil and Neem seed kernal extract	Awarded but not used	Fully known	Now using upon availability
Setting of yellow sticky trap and pheromone trap	Not fully awarded	Fully known	Availability of the quality material is difficult
Use of egg parasites for pest management	Not fully awarded	Fully known	Availability of the quality material is difficult

FRONTLINE DEMONSTRATION

Demonstration of ADT51 paddy seed production by farmer participatory mode

Visit to Paddy ADT-51 paddy seed production fields by the Director, TRRI, Aduthurai

Demonstration of nutri garden-Homestead

FRONTLINE DEMONSTRATION

Demonstration of seed production through farmer participatory mode in groundnut (VRI 8)

Demonstration seed production through farmer participatory mode in Gingelly (VRI 3)

Demonstration of ADT 53 paddy

FRONTLINE DEMONSTRATION


Demonstration of ICM practices in blackgram (VBN8)


Demonstration of Fodder bank for livestock


Cluster FLD on pulses

FRONTLINE DEMONSTRATION

Demonstration of ICM practices in paddy cultivation in salt affected soil

Demonstriton of NCOF waste decomposeer for decompsoting sugarcane waste

Demonstration of CO4 bhendi with ICM

FRONTLINE DEMONSTRATION


Demonstration of composite fish culture in farm ponds


Demonstration of backyard TANUVAS Aseel for backyard poultry


Demonstration of blast disease management in rice

ON FARM TRIALS

Assessment of suitable alternate variety for BPT 5204 in Cuddalore district

Assessment of suitable sugarcane variety for Cuddalore district

Assessment of performance of new bottle gourd varieties/hybrids (Pusa Santushti and PLR 2) suitable for Cuddalore district

ON FARM TRIALS

Assessment of management modules against nematode complex in tuberose at Mathakazhirmanickam village

Assessment of Rugose whitefly management in coconut at Kothandapuram village

IPM of Fall army worm (*Spodoptera frugiperda*) on maize

ON CAMPUS TRAINING


Training on Paddy cultivation techniques on 17.6.2019


Mushroom cultivation training at KVK Vriddhachalam on 31.10.2019


On campus training on Seed production in groundnut and post harvest technologies. The Director (Seed) participated in the meeting.

ON CAMPUS TRAINING


Training on value addition in millets, fruits and vegetables


Training on Information communication technology tools for farm women


On campus training on Root top or terrace gardening

OFF CAMPUS TRAINING

Training on Improved Paddy cultivation techniques

Training on composite fish culture on 21.11.2019 at Alanduraipattu village

Training on Rugose spiraling whitefly management at Sedapalayam village on 07.01.2020

Off campus training on pest and disease management in paddy

OFF CAMPUS TRAINING


Training on Sustainable Sugarcane Initiative


Training on pulse commodity group and seed production in pulses

Off campus training on improved pulses production technologies on 01.11.19

OFF CAMPUS TRAINING

Training on Sustainable Sugarcane Initiative

Training on Organic agriculture

Training on composite fish culture on 21.11.2019 at Alanduraipattu village

Training on Improved production technologies in Rice at Dharmanallur

Training on precision farming in vegetables

Off campus training cum Power weeder demonstration in paddy

VOCATIONAL TRAINING


Technical lecture about Importance of vegetables and millets


Demonstration of value addition in various products


Demonstration of value addition in tomato

EXHIBITIONS

Exhibition at CODISSIA Intex-2019, Coimbatore

Jack day-Exhibition at ADSC&RI ,TNAU, Trichy

Millets-Exhibition at Athiyandal, Tiruvannnamalai

EXHIBITIONS

	
Exhibition at Animal Park, Thalaivasal	**Exhibition at KVK Vridhachalam during SAC 2020**

NADCP-Foot and mouth campaign

Release of leaflet by JDA, Animal husbandary

Artificial insemination at Pudhukurapettai village

Deworming tablets given to the animals

JSA-Mega Kisan Mela

Inauguration of the mela by the honorable MP and MLA

Distribution of inputs to the progressive farmer

Honourable MP Visiting the KVK stall

Inauguration of the meeting by the Dignitaries

Overview of JSA mega mela

JAL SHAKTHI ABHIYAN

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td colspan="2">Pledge taken by the staffs</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Tree plantation</td><td>Rally</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td colspan="2">Awareness programme among the farmers at Kuppanatham village</td></tr>
</table>

Kisan and Vigyan Day

Awareness programme among the farmers

Campus cleanliness drive as a part of Swachh bharat

Farm cleanliness drive as a part of Swachh bharat

Pradhan Mandri Kisan Samman Nidhi

	
Video conference by our prime minister	**Translation of PM speech**
	
Distribution of leaflets by MLA	**Translation of PM speech**
	
Overview of the meeting	**MLA Visiting KVK stall**

Pre-Rabi Awareness programme

	
Inauguration of the programme	**Release of Leaflets**
	
Release of newsletters	**Technical session by SMS**
	
Technical session by SMS	**Stalls at KVK**

Tree plantation and environment awareness

Inauguration of the programme at DFI village

Tree plantation by the Programme Coordinator

Tree plantation

Tree plantation

Tree plantation by the Programme Coordinator in a school

Vigilance awareness 2019

Pledge taken by staffs and students

Pledge taken by the staffs

Pledge taking and Vigilance awareness

Pledge taking and Vigilance awareness creation at schools

Swachhta Pakhwada

	
Tree planting	**Campus cleaning**
	
Farm cleaning	**Campus cleaning**

World soil health day


Meeting with the farmers on soil health day


Importance of soil health was explained to the farmers


Demonstration of soil sampling protocol

International Women's Day






Celebration of International women's day. Lectures, competitions and prize distribution were held.

NEWS PAPPER CLIPPINGS

NEWS PAPPER CLIPPINGS

KVK Newsletter

	
Jan-March 2019	**Apr-June 2019**
	
Jul-Sep 2019	**Oct- Dec 2019**