ANNUAL REPORT OF KVK, KANCHEEPURAM
(April-2017-March-2018)

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	158	3498	1348	4846
Rural youths	40	1005	375	1380
Extension functionaries	9	384	77	461
Sponsored Training	5	525	629	1154
Vocational Training	1	1	19	20
Total	**213**	**5413**	**2448**	**7861**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	175	70	Ha
Pulses	125	50	Ha
Cereals	30	12	Ha
Vegetables	30	6	Ha
Other crops (Mango)	30	3	Ha
Total	390	141	Ha
Livestock & Fisheries	55	0	155
Other enterprises	20	0	2
Total	**75**	**0**	**157**
Grand Total	**465**	**141**	**157**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	1	5	5
Livestock	1	10	10
Various enterprises	1	4	20
Total	**3**	**19**	**35**
Technology Refined			
Crops	0	0	0
Livestock	3	55	55
Various enterprises	0	0	0
Total	**3**	**55**	**55**
Grand Total	**6**	**74**	**90**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	191	13498
Other extension activities	80	1876
Total	**271**	**15374**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awar e-ness	Other enterprise	Total
	Text only	7	4	0	0	0	3	14
	Voice only	0	0				0	0
	Voice & Text both	0	0	0	0	0	0	0
	Total Messages	**7**	**4**	**0**	**0**	**0**	**3**	**13**
	Total farmers Benefitted	**3811**	**2492**	**0**	**0**	**0**	**1723**	**8026**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	230.53	62885
Planting material (No.)	434285 slips	241950
Bio-Products (kg)	5026kg 700 litres	60260
Livestock Production (No.)	1664	89805
Fishery production (No.)	1509 (ornamental Fishes)	4020

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	459	46950
Water	128	17470
Plant	0	0
Total	**587**	**64420**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	1
2	Conferences	4
3	Meetings	4
4	Trainings for KVK officials	2
5	Visits of KVK officials	0
6	Book published	0
7	Training Manual	2
8	Book chapters	0
9	Research papers	11
10	Lead papers	0
11	Seminar papers	0
12	Extension folder	11
13	Proceedings	0
14	Award & recognition	0
15	On going research projects	0

DETAIL REPORT OF APR-2017-18

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone	E mail
	Office	
Krishi Vigyan Kendra Kattupakkam – 603 203 Kancheepuram District Tamil Nadu	044 - 27452371	kvk-kattupakkam@tanuvas.org.in kvkkpm@yahoo.co.in kvk.Kancheepuram@icar.gov.in

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

Address	Telephone		E mail
	Office	FAX	
Tamil Nadu Veterinary and Animal Sciences University, Madhavaram Milk Colony, Chennai - 600 051.	044 - 25551586	-	registrar@tanuvas.org.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.K.Velmurugan	-	9443441098	rkaruvel@gmail.com

1.4. Year of sanction: 1985

1.5. Staff Position (as on 30th March, 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Design-ation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Perman-ent /Temp-orary	Category (SC/ST/ OBC/ Others)
1	Programme Coordinator	Dr.K.Velmurugan	Senior Scientist and Head	Horticulture	37400-67000 +AGP 10000	56500	20.10.2001	Permanent	SC
2	Subject Matter Specialist	Dr.M.Siddharth	SMS	Agri. Engg.	37400-67000 +AGP 10000	54850	17.10.2017	Permanent	SC
3	Subject Matter Specialist	Dr.M.Vimalarani	SMS	Home Science	37400-67000 +AGP 8000	38080	10.08.2005	Permanent	OBC
4	Subject Matter Specialist	Dr.T.Selvaraj	SMS	Soil Science	37400-67000 +AGP 8000	38120	22.06.2017	Permanent	OBC
5	Subject Matter Specialist	Dr.K.Devaki	SMS	Animal Science	37400-67000 +AGP 7000	32920	01.08.2014	Permanent	OBC
6	Subject Matter Specialist	Dr. Gayathri Subbiah	SMS	Plant Pathology	37400-67000 +AGP 7000	31660	03.10.2012	Permanent	OBC
7	Subject Matter Specialist	Dr.K.Sivakumar	SMS	Fisheries	37400-67000 +AGP 6000	22920	01.12.2015	Permanent	OBC
8	Programme Assistant	Th.S.Ramesh	Assistant		20600-65500	42000	17.01.2013	Permanent	Others
9	Computer Programmer	Vacant							
10	Farm	Vacant							

	Manager								
11	Accountant / Superintendent	Th.A.Jeyamony	Superin-tendent		36900-116600	54100	17.10.2013	Permanent	OBC
12	Stenographer	Th.K.Thangaraj	St.Typist Gr.III		20600-65500	39600	28.05.2007	Permanent	OBC
13	Driver	Th.C.Raje	Driver		35400-112400	44900	21.11.2016	Permanent	OBC
14	Driver	Th.N.Narayanan	Driver		19500-62000	26200	13.12.2013	Permanent	SC
15	Supporting staff	Th.E.Sundaram	Attendent		15900-50400	29600	20.07.2000	Permanent	SC
16	Supporting staff	Th.P.Muthupandi	Attendent		15700-50000	18700	16.12.2016	Permanent	OBC

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	0.08
2.	Under Demonstration Units	2.10
3.	Under Crops	9.82
4.	Orchard/Agro-forestry	8.00
5.	Others (specify)	-

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
1.	Administrative Building	ICAR	1989	350	500000	-	-	Completed
2.	Farmers Hostel	ICAR	1998	305	1019000	-	-	Completed
3.	Staff Quarters	ICAR	1998	230	739000		-	Completed
4.	Demonstration Units		-	-	-	-	-	-
	1. Orchard	Revolving fund	2008	500	30000	-	-	-
	2. Ornamental nursery	Revolving fund	2008	10	500	-	-	-
	3. Vermi compost unit	Revolving fund	2009	5	2000	-	-	-
	4. Rabbit unit	Revolving fund	2009	7	3000	-	-	-
	5. Azolla production unit	Revolving fund	2010	2	2000	-	-	-
	6. Medicinal plants	Revolving fund	2010	5	2000	-	-	-
	7. Fodder production unit	Revolving fund	2007	1000	50000	-	-	-
	8. Kitchen garden	Revolving fund	2008	5	20000	-	-	-
	9. Goat Shed	ICAR	2014	150	200000	-	-	-
	10. Dairy Shed	Revolving Fund	2014	40	90000	-	-	-
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep	6/16/2005	450000	229714	Condemned in October 2017
Bolero Jeep	11/05/2017	738966	8338	Running
Tempo Traveller	5/30/2005	750000	99978	Running
Tractor	4/6/2009	760000	1360	Running
SCOOTY PEP	6/22/2009	50000	44556	Running
HERO HONDA	8/25/2009	70000	54901	Running

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Seed cum Fertilizer Broadcaster	2003	3000	Good condition
Wooden chaff cutter	2003	700	Good condition
Paddy Drum Seeder	2003	3500	Good condition
Peg type weeder	1995	1000	Good condition
Groundnut stripper	2002	1200	Good condition
Star weeder	2002	3500	Good condition
Secature	1999	125	Good condition
Rose can	1995	110	Good condition
Paddy parboiling unit	1986	1154	Good condition
Seed coating machine	1991	825	Good condition
Hand Operated Groundnut Decorticator	1986	3500	Good condition
Helical blade puddier	1986	950	Good condition
Cono weeder	2003	725	Good condition
Poultry and Fish meal Pelletizer	1991	3736	Good condition
Power weeder	2011	19760	Good condition
Brush cutter	2011	19950	Good condition
Power tiller	2011	150000	Good condition
Power sprayer	2011	4800	Good condition
Incubator	2013	18000	Good condition
Fodder cutter	2013	18119	Good condition
A.V.Aids			
Display boards	1997	1035	Good condition
Television B and W	1990	3300	Good condition
Pentax camera K – 100	1986	4019	Good condition
Data Projector	2007	92,800	Good condition
Colour T.V	1997	17,975	Good condition
VCR	1997	1600	Good condition
Projection screen	1986	715	Good condition
Digital camera	2004	20000	Good condition
Generator – 2 no.	2009	90819	Good condition
Office Equipments			
Type writer (Tamil)	1985	5518	Good condition
Type writer (English)	1985	5370	Good condition
Computer and Accessories			

Desktop PC with multimedia kit	2000	59117	Good condition
FAX Modem	2000	9110	Good condition
UPS-1 KVA	2000	1250	Good condition
Lexmark printer	2000	8000	Good condition
HP Ink Jet Printer	2003	3200	Good condition
Scanner	2004	3550	Good condition
Public Address system	2006	10000	Good condition
e-connectivity system provision			
Window AC	2009	-	Good condition
Chairs (Godrej)	2009	-	Good condition
Server with Keyboard and mouse (1)	2009	-	Good condition
Monitor 17" for server (1)	2009	-	Good condition
Online UPS – 3 KVA	2009	-	Good condition
Desktops (CPU with Keyboards & Mouse – 5)	2009	-	Good condition
Monitor (17" TFT LCD – SVGA, TCO – 03)	2009	-	Good condition
UPS – 65 UPS for Desktops computers – 5	2009	-	Good condition
TVS Dot-matrix Printer 245 – 1	2009	-	Good condition
HP LaserJet P1505n Printer – 1	2009	-	Good condition
HP 8JG3110 Scanner	2009	-	Good condition
DAX 24 port switch	2009	-	Good condition

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

Sl.No.	Date	No of Participants	Salient Recommendations
1.	17.02.2017	23	Attached below in Serial No.9
2.	06.11.2017	22	Attached below in Serial No.9

**** Attach a copy of SAC proceedings along with list of participants***

2. DETAILS OF DISTRICT (2016-17)

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

S. No	Farming system/enterprise
1	Paddy - Paddy – Pulses, Paddy - Paddy – Vegetables, Paddy - Groundnut – Sesame, Dairy, Goat, Sheep, Poultry, Pig

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 of Tamil Nadu	Annual average rainfall – 992.3 mm, Sandy clay loam soil, red soil and alluvial soil, Mostly irrigated and some parts under rain fed condition

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Sandy clay loam soil	Good water holding capacity and medium clay content and good fertile condition	46000
2	Red soil	Less water holding capacity, medium clay content	16500
3	Clay loam soil	High clay content and good water holding capacity	12100

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

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Paddy	72607	4385206	58
2.	Groundnut	13437	342644	17.5
3.	Pulses	5192	46728	9
4.	Sesame	911	10021	11
5.	Sugarcane	2050	2050000	1000
6.	Vegetables	6203	1240600	200

2.5. Weather data

Month	**Rainfall (mm)**	**Temperature ^{0} C**		**Relative Humidity (%)**
		Maximum	**Minimum**	
April	0.0	37.5	26.4	73
May	0.9	39.0	27.9	63
June	112.6	34.7	26.1	69
July	81.7	35.0	25.9	69
August	69.7	36.4	26.4	65
September	258.5	34.0	25.0	74
October	5.9	34.7	24.7	70
November	57.2	32.0	22.2	74
December	396.0	29.8	20.8	80
January	9.8	30.4	20.9	78
February	0.0	31.8	20.4	75
March	0.0	34.03	24.3	75

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

Category	**Population**	**Production**	**Productivity**
Cattle			
Crossbred	279.2(in '000)	104.223 (in '000Tonnes)	6.8
Indigenous	342.4(in '000)	64.700 (in '000Tonnes)	2.5
Buffalo	154434	27.246 (in '000Tonnes)	4.43
Sheep			
Crossbred	20219	Chevon – 26.495 (in million kgs)	
Indigenous	99427		
Goats	192242	Mutton – 15.326 (in million kgs)	
Pigs	2509	Pork – 0.670 (in million kgs)	
Crossbred	625		
Indigenous	1884		
Rabbits	3028		
Poultry			
Hens	132949	371.386 (in lakh Nos.)	
Desi	115126	180.200 (in lakh Nos.)	94.660
Improved	17823	137.186 (in lakh Nos.)	287.620
Ducks	42747		
Turkey and others	3229 and 4992		
Fish			
Marine	87.2 km (44 Fishing Village)	22475.34 (tons)	-
Inland	15055 ha	11665.78 (tons)	0.77 (t/ha)
Prawn			
Scampi	26 ha	80 (tons)	3.07 (t/ha)
Shrimp	256 ha	1050 (tons)	4.10 (t/ha)

2.7 Details of Adopted Villages (2017-18)

Year of adoption: 2016-17

Sl.No.	Taluk/ mandal	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Pichivakkam Panchayat	Sriperumpudur	Pattumudaiyar kuppam	Paddy Pulses Vegetables Jasmine Livestock	Weed problem Lack of awareness on high yielding varieties Bud worm infestation	ICM, IPDM and Compost production & Value addition
2.	Kavathur Panchayat	Madhuranthagam	Kamsalapuram	Vegetables Paddy Livestock	Low yield and soil fertility problem.Pests and Disease menace	ICM, IPDM and Compost production & Value addition

2.8 Priority/thrust areas

Crop/Enterprise	**Thrust area**
Paddy, Millets, Groundnut, Pulses and Vegetables	Introduction of high yielding varieties Integrated crop management practices Integrated pest and diseases management Integrated farming system for diff ecosystem Organic agriculture / vegetable cultivation Terrace gardening
Dairy	Hygienic maintenance of animals Regular vaccination Infertility & disease management in livestock
Dairy and Rabbit	Scientific disease management Green fodder cultivation Establishment of rabbit production unit
Sheep and Goat	Scientific disease management like Deworming and vaccination
Pig	Regular Deworming & Vaccination Proper care of piglets
Poultry	Training on scientific management of Poultry Prevention and control of diseases Backyard poultry farming
Fisheries	Composite fish culture in farm ponds
Value addition	Value addition of cereals, milk and meat
Farm Mechanization	Introduction and demonstration of latest low cost/labour saving farm implements

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2017-18

OFT (Technology Assessment)				**FLD (crop/enterprise/CFLDs)**			
1				**2**			
Number of technologies		**Total no. of Trials**		**Area in ha**		**Number of Farmers**	
Targets	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
4	3	77	72	144	144	507	507

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	57	57	1425	1257	30	35	90	2010
Rural youth	15	46	375	415	12	12	400	516
Extn. Functionaries	3	3	90	90	3	3	300	450

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
20	20	30	10Lakhs	12.5 Lakhs	196

3.b. TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Integrated Nutrient Management				
Varietal Evaluation	Muskmelon	Assessment of Muskmelon varieties for Kancheepuram district	5	5
Integrated Pest Management				
Integrated Crop Management				
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation Technology				
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Post Harvest Technology / Value addition				
Drudgery Reduction				
Storage Technique				

Others (Pl. specify)				
Total				

Summary of technologies assessed under livestock by KVKs

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management	Dairy	Assessment of Mastiguard efficacy in clean milk production	10	10
Total			10	10

Summary of technologies assessed under various enterprises by KVKs

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
Health and Nutrition	Traditional paddy Varieties	Assessment of Glycemic Index of Traditional Paddy varieties	**4**	**20**

3.c. TECHNOLOGY ASSESSMENT IN DETAIL

OFT-1

1. Thematic area: Dairy farming
2. Title: Assessment of Mastiguard efficacy in clean milk production
3. Scientists involved: Dr.K.Devaki

4. Details of farming situation:

Mastitis continues to be one of the most costly diseases of the dairy industry. Subclinical mastitis reduces milk quality and decreases yield and the relationship between production loss and somatic cell count is closely related. Mastitis is the most prevalent and costly disease that affects dairy cows. Producers have been struggling to corner the disease for years, but it continues to be the single largest obstacle for the dairy industry. The ability to detect mastitis early and do something about it can have a significant impact on milk production, milk quality and herd health. When microorganisms invade a dairy cow's udder this triggers an immune response that results in mastitis, an inflammation of the cow's mammary gland. Mastitis-causing pathogens can be contagious, spreading from cow to cow, or environmental, coming from dirty or wet conditions in the cow's living area. Clinical mastitis infections are those with symptoms like udder swelling or redness that are visible to the naked eye. On the other hand, subclinical mastitis infections don't cause any visible changes in milk or udder appearance, making it difficult to detect.

Subclinical mastitis infections affect the dairy producer's bottom line by reducing milk production, decreasing milk quality, and suppressing reproductive performance. Cows with a high Somatic Cell Count (SCC) indicative of subclinical mastitis on the first milk test have an estimated loss in milk production of more than 1,500 pounds per cow.[1] Subclinical mastitis also jeopardizes milk quality, preventing dairy producers from getting those valuable SCC premiums. In addition, it has been shown to increase the number of days open, meaning that producers will have to pay for additional services.

Subclinical mastitis not only reduces milk production but also affects various physiological functions including long term animal health and milk composition. Hence an assessment was conducted by KVK,Kattupakkam to prevent dairy animals from Mastitis infection. One of the technique used to monitor the level or occurrence of subclinical mastitis in herds or individual cows or quarters is to determine the somatic cell count (SCC) of milk samples. Factors which influence somatic cell counts in bovine milk are reviewed and guidelines for their interpretation are presented. It is suggested that the thresholds of 300 000 and 250 000 cells/mL be used to identify infected quarters and cows respectively. However, it is stressed that somatic cell counts are general indicators of udder health which are subject to the influence of many factors. Therefore the evaluation of several successive counts is preferable to the interpretation of an individual count. Two techniques were used for assessing the prevention of mastitis in dairy animals.

5. Problem definition / description:

- Mastitis infection in dairy cows
- Low milk production
- Lower income
- Higher treatment cost

6. Technology Assessed: (give full details of technology as well as farmers practice)

Tech :1 No control measures adopted (Farmers Practice)
Tech: 2 Mastiguard spray to control mastitis (TANUVAS, 2016)
Tech:3 Use of Herbal Teat dip (GADVASU, 2014)

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

- Mastiguard Kit- 1 No. – Rs.350
- GADVASU Herbal Teat dip - Rs.200
- Display board – Rs. 1000
- For 10 demos - Rs.12000

9. Results:

Table : Performance of the technology

Technology Option	***No.of trials***	***Milk Yield (in lit)***	***Net (in Rs)***	***B:C ratio***	***Data on Other performance indicators****		
					SCC	***Milk fat%***	***Disease incidence***
Farmers Practice (No control measures adopted)	*10*	5.6 litres	54	1.37	7.4 lakhs	2.65	70 %
Technology 1(Mastiguard spray to control mastitis)		8.16 litres	133	1.84	2.4 lakhs	3.07	15%
Technology 2(Use of GADVASU herbal Teat dip solution)		7.04 litres	99	1.65	4.0 lakhs	2.87	49%

**** Other performance indicators: *SCC- Somatic cell count, MF-***

Description of the results:

It was found that in farmers practice, the farmers did not follow any treatment to control mastitis in their animals. Ten farmers with three animals were selected at Nandivaram village, Kattankolathur block, Kancheepuram district for the study. In this trail, the farmers did not follow any treatment to prevent mastitis in their animals. In this trial, the parameters such as SNF, milk yield, milk fat percentage, Disease incidence were recorded. It was found that in farmers practice, the milk sample collected had somatic cell count of 7.4 lakhs where animal was found to be infected with mastitis. When somatic cell count is above 5 lakhs, the animal is prone for mastitis. The disease incidence of 70% were noticed in this trail animals. Further the milk yield and milk fat was found to be 5.6 litres per day and 2.65 % respectively.

In technology 1, ten animals were selected and was treated with mastiguard spray and the milk sample was collected for somatic cell count (SCC) detection. It was found that in this technology, the SCC was found to be 2.4 lakhs, which is below 5 lakhs. Hence the animals were found to be free from mastitis infection. Further, it was also observed that the disease incidence was reduced to 15% on an average. Milk yield and milk fat percentage was found to 8.16 litres and 3.07 % respectively. This clearly indicated that the usage of TANUVAS Mastiguard kit in field condition has reduced the incidence of Mastitis infection in dairy animals.

In technology-2, ten animals were selected and GADVASU herbal teat dip was used to prevent mastitis infection in dairy animals and the milk sample was collected for somatic cell count. In this technology, the SCC was found to be 4 lakhs which is below 5 lakhs. If the cell count is above 3 lakhs and less than 5 lakhs, the animal is prone for sub-clinical mastitis condition which requires some initial treatment to overcome the same. But it is not harmful. The treatment if started earlier, the condition can be cured. The disease incidence of 49%, Milk yield of 7.04 lit/day and Milk fat % of 2.87% was recorded in this trial animals.

It was found that in technology-1, the SCC and disease incidence has reduced with improved milk yield and milk fat %. Hence it can be proved that TANUVAS Mastiguard is effective in preventing and curing mastitis infection in dairy animals at low cost. Hence this technology can be popularized among rural dairy farmers to prevent mastitis infection in their animals.

Constraints faced:

The constraints experienced by the dairy farmers were provided under the four heads , namely

1. Bio-physical constraints
2. Socio-economic constraints
3. Technological constraints and
4. Institutional constraints

1. Bio-physical constraints

"Non-availability of suitable SCC kit" was expressed as a major bio-physical constraint of the respondents. During the data collection, most of the respondents reported that the SCC Mastitis kit were not available in time either in local markets or KVK. They further revealed that the Kit are not available in adequate quantity to fulfill their needs.

2. Socio-economic constraints

The important socio-economic constraint expressed by majority of the respondents was difficulty in procurement of technical inputs. This might be due to the availability of kit in TRPVB, Madhavaram, it is difficult for the farmers to procure it in time.

3. Technological constraints

The first and foremost technological constraint experienced by the farmers was evaporation of TANUCHEK kit liquid, if not stored properly under refrigeration. The possible reason may be due to non-availability of refrigerator in all their households might cause this constraint.

Other technological constraint expressed by the farmers was “Lack of conviction in the new technology”. This technology of Mastiguard kit increased time consumption after milking of their cattle, especially among the small and marginal farmers. Hence, most of the respondents were not convinced about the merits of this technology.

4. Institutional constraints

“GADVASU herbal kit procurement was cumbersome” was reported as the foremost constraint under the institutional constraint. The herbal kit was not supplied directly by the GADVASU. The individual farmer need to go to GADVASU, Chandigarh or need to send somebody to collect the herbal kit, which is really impossible by a farmer. In addition, the herbal kit was oil based and took considerable time to remove from the udder by washing.

10. Feed back of the farmers involved:

- Highly satisfied
- As the milk yield of the dairy animals was increased due to adoption of this technique, the farmers expressed higher level of satisfaction towards this technology.
- Low cost technology
- As the cost of each kit is just Rs.300/- and also there is considerable increase in the milk yield, this technology can be easily propagated to other dairy farming villages.
- Easy for application
- The application of this technique is very easy and also user friendly. Hence there is higher level of satisfaction among the farmers.
- The farmers confessed that the regular usage of Mastiguard technique will definitely reduce the mastitis infection among the dairy animals and in turn increase in milk yield was noticed.

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

- ❖ The kit produced by GADVASU scientist was more oil based and found to be very difficult to remove it during the next milking. Hence the oil base sensation should be reduced.
- ❖ It was found to be difficult to procure the inputs such as SCC kit as it was available in Chandigarh and Madhavarm only, which is far away for the farmers. Hence the scientists may send these kits directly to the KVK for effective propagation .
- ❖ The positive feedback given by farmers include ease in use (user friendly) and reduced disease incidence at low cost.

OFT-2

1. Thematic area**:** **Health and Nutrition**
2. Title: **Assessment of Glycemic Index of Traditional Paddy varieties**
3. Scientists involved: Dr.M.Vimalarani

4. Details of farming situation: Not applicable

5. Problem definition

- Nutritional deficiencies prevails in rural areas due to various reasons such as-change in lifestyle and dramatic shift to unhealthy eating habits and physical inactivity has caused nutritional deficiencies to spread like an epidemic in urban areas as well.
- Under utilization of Traditional paddy varieties and therapeutic properties of traditional rice varieties not known.
- 'Rice flakes' or 'flattened rice' or 'beaten rice', is a popular processed rice product used as a breakfast cereal, a substitute for cereal in weaning foods and a snack food. About one-fifth of the rice produced is converted into flakes. Paddy production in the world is 660 million tonnes, out of which India produces around 144.6 milliontonnes.
- About 14.46 million tonnes (10% of production) are being utilized for the production of rice products like popped, expanded and flaked rice (Narasimha et al.,2012).

6. Technology Assessed

Baseline survey was conducted for the selected thirty subjects-includes

a. Personal details-Name, address, age, Aadhar Number, educational qualification
b. Occupation and Income
c. Household Expenditure (survey method)-Food expenditure and other miscellaneous expenditures
d. Individual Anthropoemetric details-Age, sex, Height, weight, BMI, Arm circumference(for screening the subjects)

A sub sample of 20 members was selected for the further assessment. The selected members were healthy, free from any disease such as Diabetes, hypertension and other health disorders.

A. Analysis of Rice flakes for proximate composition

B. Technology 1- Polished rice flakes –co-37-Farmers practice
Technology 2- Mapillai samba rice flakes- Traditional Paddy varieties
Technology 3- Kulankar rice flakes - Traditional Paddy varieties

C. Procedure for conduct of the assessment

- Subjects were asked to abstain from food for atleast 10 hours.
- The GI value of a food is determined by feeding 20 healthy people a portion of the food containing 50 grams of digestible (available) carbohydrate and then measuring the effect on their blood glucose levels over the next two hours.
- For each person, the incremental area under their two-hour blood glucose response (glucose iAUC) for this food is then measured.
- the same 10 people consume an equal-carbohydrate portion of glucose sugar (the reference food) and their two-hour blood glucose response is also measured.
- A GI value for the test food is then calculated for each person by. dividing their glucose iAUC for the test food by their glucose iAUC for the reference food multiplied by 100
- The final GI value for the test food is the average GI value for the 20 people.

D. Calculation of Available Carbohydrate from Total Carbohydrate for supplementation

1. Polished rice flakes -58.8g
2. Mapillai samba rice flakes -61.3g
3. Kulankar rice flakes -62.2g

7. Critical inputs given: (along with quantity as well as value)
Polished rice flakes(co 37) - 58.8g
Traditional paddy varieties
Mappilai samba rice flakes – 61g
Kulankar – 62 g
Estimate for available carbohydrate - 3 samples
Glucometer and strips for glucometer - 1 No. (20/person)

Hence, the present study was planned to determine the GI of three types of rice flakes that are important in the diet of Indians.

8. Results:

The trend toward hybrid from traditional varieties may be reversing as traditional varieties are experiencing an increasing trend among consumers, due to their incredible health benefits for example the traditional varieties possess low sugar content, making them pleasing choice for consumers who are suffering from diabetics, overweight, or regulating their sugar intake. They have higher amount of glutamic acid, Fiber and vitamins. Mapillai samba and Kulankar traditional brownish black rice variety is known for its anti-diabetic properties and grown under limited areas of Kancheepuram District.

These Rice varieties possess higher amylose content and are rich in resistant starch that cannot be hydrolyzed in the gastrointestinal tract and serves as a substrate for bacterial fermentation. These cultivars ensure several health benefits such as reducing the risk of developing type II diabetes, obesity and cardiovascular diseases by lowering the glycemic and insulin responses. Brown rice contains high amounts of insoluble fiber, which is reported by scientists to protect the body against a variety of cancers. These are also valuable sources of food for those suffering from hypertension due to its low sodium content and are also a fair source of protein containing all eight amino acids

The present study was aimed at profiling the nutritional and therapeutic values of traditional paddy varieties (Rice flakes) in comparison with other popularly eaten white rice varieties of Kancheepuram District Co 37.The results of Assessment on glycemic index of the traditional paddy varieties given in the following paragraphs.

Table : Performance of the technology

Technology Option	***No.of trials***	***Yield (t/ha)***	***Net Returns (Rs. in lakh./ha)***	***B:C ratio***	***Data on Other performance indicators****
Farmers Practice	*4*			-	
Technology 1(Mention details)				-	*Plain rice flakes*
Technology 2(Mention details)		-	-	-	*Traditional rice flakes (Mappillai samba)*
Technology 3(Mention details)	-	-	-	-	*Traditional rice flakes (Kulankar)*

**** Other performance indicators: such as pest intensity, weed population, test weight, duration etc***

Description of the results:

The glycemic index (GI) is a tool to measure how individual foods are expected to impact blood sugar levels. The variations in the GI could be attributed to the nature of available as well as non-available (non-starchy polysaccharides) carbohydrates in the foods besides the processing undergone by the cereal ingredients.

Table II - Proximate composition of Rice flakes

Rice flakes	**Moisture**	**Crude fibre**	**Fat**	**Ash**	**NFE**	**Total CHO**	**Available CHO**
Polished Rice	5.04	6.32	2.74	0.93	89.02	91.76	85.44
Mapillai samba	5.07	8.20	2.98	1.42	85.55	88.53	81.53
Kulankar	2.81	7.71	2.62	1.26	86.62	89.24	80.33

Figure I - Proximate composition of Rice flakes

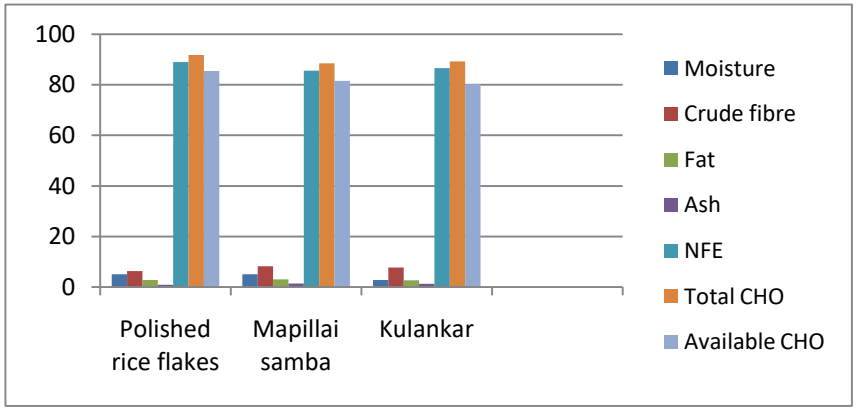


Table III - Anthropometric Measurements of the selected subjects

Parameters	**Values**	
Sex	Male	Female
	9	11
Age 30-40 years	6	5
41-50 years	3	6
Height	153 cm	157 cm
Weight	55.7 kg	61.7 kg
Mid arm circumference	11.3cm	12.2
BMI	23.6	24.8

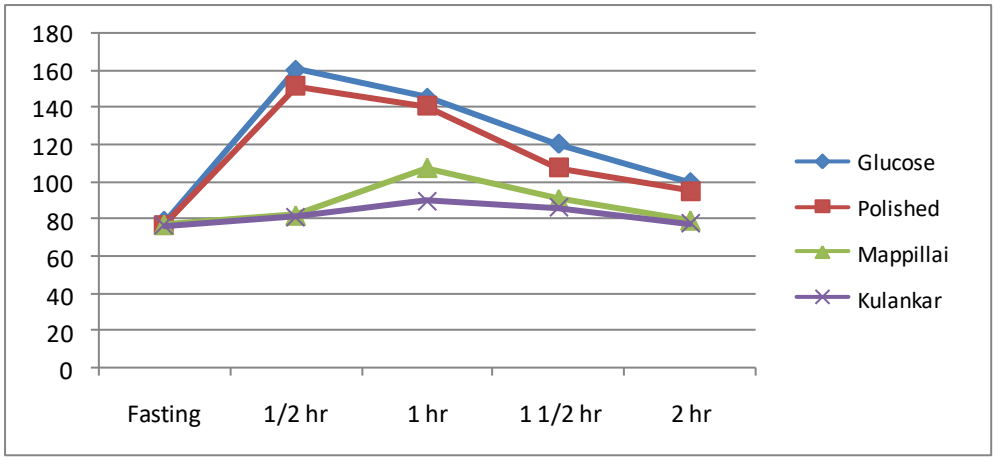
Three commonly consumed rice varieties (Flakes) (Mappilai samba, Kulankar and polished rice co 37) were tested for their glycaemic index (GI). Healthy volunteers were recruited and after an overnight fast were given a 50 g available carbohydrate portion of glucose (reference food) or different varieties of cooked rice flakes(test foods) on separate occasions. The fasting as well as postprandial capillary blood glucose response was determined over 2 h, and the incremental area under the curve (IAUC) was calculated. The GI was calculated as the IAUC of the test food/IAUC of the reference food (glucose) × 100. The differences between the GI values for traditional rice varieties is given in table IV

Table IV - Average Blood Glucose Levels of the selected samples

Time Interval	**Glucose**	**Polished**	**Mappillai samba**	**Kulankar**
Fasting	78.75	77.5	77	77
1/2 hr	160.65	151.9	82	81
1 hr	145.5	141.1	94	87
1 1/2 hr	120.65	108.1	90	85
2 hr	99.7	95.8	85	80

Figure II

Graphical Representation of Mean Blood Glucose levels of the participants



Glycemic index of the three rice flakes were evaluated and calculated and is presented in given Table-V

Table-V

GLYCEMIC INDEX OF RICE FLAKES

Varieties of Rice Flakes	GI Values
Polished	87.5
Mappillai	58.75
Kulankar	54.3

The glycemic Index of the traditional rice flakes Kulankar shows less glycemic index value of 54.3 (55 or less - Low GI) followed by Mappillai samba with moderate glycemic index of 58.75 (56–69- Medium GI) and polished rice have high glycemic index 87.5(70 and above -High GI).The glycemic index of brown rice is 55, putting it about equivalent to long-grain white rice. However, brown rice is a better food than white rice because of the additional fiber and nutrients it contains. Since a larger amount of fiber contributes to fullness, you may eat less and thus have a lower glycemic load from brown rice.

9. **Feed back of the farmers involved**:

- Participants felt that the trial was very useful to them, since many of them were unaware of the nutritional quality of traditional rice and Glycemic index is new to them.
- They were interested in participating in the programme and were curious to know their blood glucose level.
- Farmers with land, who participated in the programme assured to cultivate traditional paddy varieties.

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

- The technology is new and good for assessing the traditional paddy varieties
- Helped farmers to adopt the technology for cultivation of this nutritionally rich varieties
- Assessment is tedious and time consuming process since the number is more.

OFT-3

1. Thematic area: Horticulture
2. Title : **Assessment of Muskmelon varieties for Kancheepuram district**
3. Scientists involved: Dr.K.Velmurugan and Dr.GayathriSubbiah
4. Details of farming situation:

Watermelon is an important fruit crop cultivated by farmers in Kancheepuram district particularly during the summer season. It is mainly grown in irrigated condition. Soil type is sandy - clay loam in areas of

cultivation with soils low in nitrogen, medium in phosphorous and potash. The seasonal rainfall is 573.6mm with 35 rainy days in the district.

Mostly company varieties are grown and the fruits are sold to Chennai markets. During field visits, it was observed that the farmers were facing the problem high cost in seed purchase, incidence wilt disease in watermelon. Sufficient variability in respect of earliness, fruit number, weight, colour, shape, size, flavour, sweetness and disease resistance was in demand among the farmers which offered a great scope for marketing. In order to meet out the farmers need OFT program to assess muskmelon as an alternate crop for watermelonwas conducted in watermelon growing areas of Kancheepuram district covering Thondamanallur, Palur and Veerabhogam villages of Pavunjur block.

5. Problem definition / description: (one paragraph)

- Alternate crop for Watermelon
- High seed cost involved
- Non adoption of Integrated Crop Management practices and cultivation of high yielding varieties
- Incidence of beetles, whiteflies and fruit flies

6. Technology Assessed: (give full details of technology as well as farmers practice)

Technology 1: Local available variety (Watermelon)
Technology2: Cultivation of Nirmal variety
Technology 3: Cultivation of Narmada variety
Technology4: Cultivation of Deepa variety

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

1. Muskmelon seeds : Nirmal variety – 5 kg @ Rs.650/kg
2. Muskmelon seeds : Narmada variety – 5 kg @ Rs.650/kg
3. Muskmelon seeds : Deepa variety – 5 kg @ Rs.600/kg
4. *Pseudomonas* : 20 kg @ Rs.72/kg
5. Portrays: 200 nos @ Rs.12/tray
6. Coco peat: 5 bags @ Rs.40/kg

8. Results:

Table: Performance of the technology

Technology Option	***No.of trials***	***Yield (t/ha)***	***Net Returns (Rs. in***	***B:C ratio***	***Data on Other performance indicators* Fruit weight (kg)***
*Farmers Practice (*Local available variety)	*5*	*30*	*39275.00*	*1.48*	*8*
*Technology 1(*Cultivation of Nirmal variety*)*		*20*	*26425.00*	*1.36*	*2.25*
*Technology 2(*Cultivation of Narmada variety*)*		*23*	*41425.00*	*1.56*	*2.3*
*Technology 3(*Cultivation of Deepa variety*)*		*25*	*51500.00*	*1.70*	*2.5*

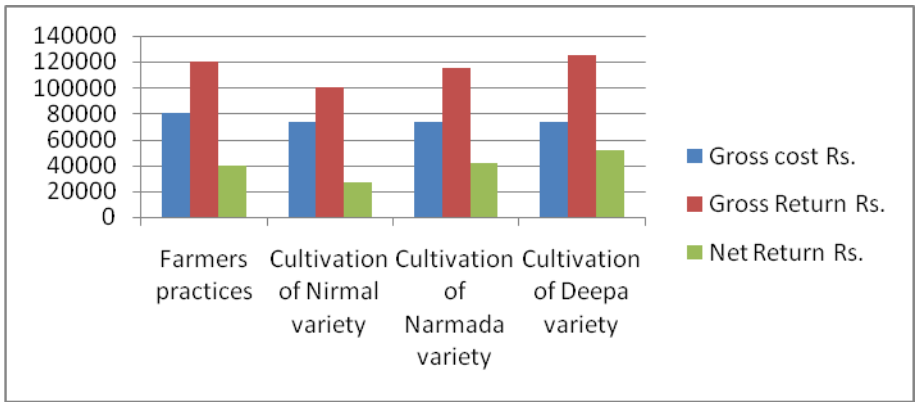
**** Other performance indicators: such as pest intensity, weed population, test weight, duration etc***

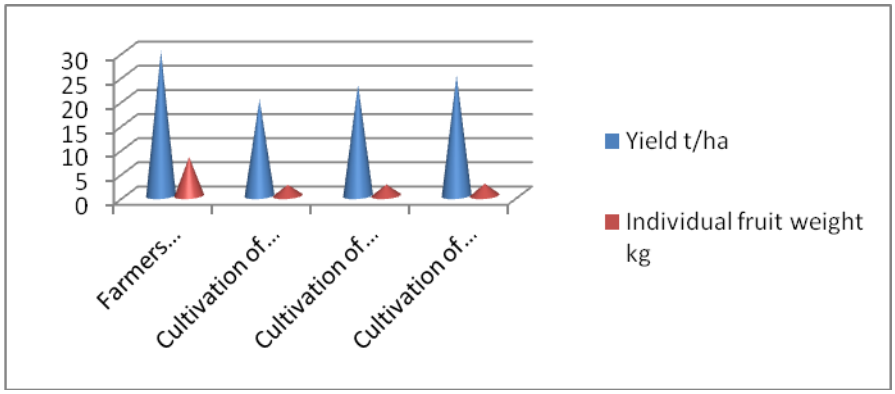
Description of the results: (one page) in addition you can use graphs also

Constraints faced:

In Watermelon cultivation, the farmers faced the problem of seed availability with reasonable cost. They were spending nearly Rs.7, 500/ha as seed cost which was high compared to muskmelon seed cost. Yield was reduced due to incidence of wilt disease, during previous years which made the farmers to look an alternate crop as managing the disease was a great concern to them as it reduced the profit and also marketability of the fruits. Integrated crop management practices like, soil application of bio agent, raising seeds in portrays in cocopeat and transplanting in the main field, use of mulches to reduce weed growth also helped the farmers to reduce the cost of cultivation.

Among the varieties, Deepa performed well with 25t/ha. The fruit weight (2.50 kg) was obtained which also fetched a good price (Rs.6/kg) in the market compared to Nirmal variety (2.25 kg) and Naramada variety (2.30 kg) . No. of fruits per vine was 2 in the varieties.





9. Feed back of the farmers involved:

Among the three varieties, Deepa was preferred by the consumers compared to Nirmal and Narmada varieties due to its appearance. All the varieties had 2 fruits per vine. Due to application of *Pseudomonas*, incidence of diseases was less compared to Watermelon cultivation. Melons were harvested from 55-60 days after planting. The main constrain faced by the farmers was the availability of the seeds in the local markets during season.

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	Demonstration of New paddy variety TKM-13 under PPP mode	Training and demonstration are being conducted regularly	3	30	655

**** Thematic areas as given in Table 3.1 (A1 and A2)***

b. Details of FLDs implemented during the current year (Information is to be furnished in the following **three tables** for **each category** 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	ICM	SRI and BMP	Rabi-2017	ICAR	6	6	1	14	15	-
2	Paddy	Seed Production	SRI and BMP	Rabi-2017	ICAR	6	6	-	15	15	-
3	Ground nut	IPDM	Ecofreindly Pest and Disease Management	Rabi - 2017	ICAR	3	3	-	15	15	-
4	Mango	IPM	Fruit fly	Rabi - 2017	ICAR	3	3	1`	29	30	-

			management								
5	Bottle gourd	ICM	PLR 1 variety demonstration	Rabi - 2017	ICAR	3	3	2	13	15	-
6	Brinjal	ICM	Demonstration of Arka Anand	Rabi - 2017	ICAR	3	3	-	15	15	-

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	Rabi	Irrigated	Clayey loam	L	L	M	Paddy	14.11.18	19.03.18	573.6	36
Paddy	Rabi	Irrigated	Clayey loam	L	L	M	Paddy	02.11.18	22.03.18	573.6	36
Ground nut	Rabi	Irrigated	Sandy Loam	L	M	M	Paddy	22.12.17	4.4.18	573.6	36
Mango	Rabi	Irrigated	Sandy Loam	L	M	L	Mango	-	26.4.18	573.6	36
Bottle gourd	Rabi	Irrigated	Sandy Loam	L	M	M	Paddy	28.12.17	8.2.18	573.6	36
Brinjal	Rabi	Irrigated	Clayey loam	L	M	L	Paddy	12.2.18	28.3.18	573.6	36

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1.Demonstration of new paddy variety CO-5	Paddy variety CO 52 Shown extreme resistance to pest and diseases.Non lodging quality.
2. Demonstration and seed production of new paddy variety TKM-13	Moderate resistance to pest and diseases.Grain is of excellent quality.
3. Demonstration of Ecofriendly pest and disease management in Groundnut	Use of seed treatment and soil application of bio agents reduced root rot incidence in groundnut. This led to decreased application of chemicals
4.Demonstration of Fruit fly management in Mango	Installation of IIHR fruit fly trap and methyl euginol traps resulted in trapping of adult insects, thereby reduced fruit fly attack
5.Demonstration of PLR 1 bottle gourd variety	The PLR 1 bottle gourd variety yield 22t/ha compared to traditional varieties 18t/ha

Farmers' reactions on specific technologies

S. No	Feed Back
1 Demonstration of New paddy variety CO-52	Farmers interested in cultivating the variety in subsequent years.
2 Demonstration and seed production of new paddy variety TKM-13	Farmers got premium price for paddy and willing to take pro active steps to control pests and diseases in subsequent years.
3. Demonstration of Ecofriendly pest and disease management in Groundnut	Chemical pesticide usage was greatly reduced. Farmers were able to identify pest and diseases and thereby adapted effective control measures
4.Demonstration of Fruit fly management in Mango	Calender of operations for pest management was useful to the mango growers
5.Demonstration of PLR 1 bottle gourd variety	ICM package of practices yielded satisfactory results but the vegetable faced marketing problem due to characteristic appearance of the vegetable

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	2	01/2/18	64	-
	Groundnut	1	4.4.18	18	-
	Mango	1	26.4.18	25	-
	Bottle gourd	1	26.4.18	20	
2	Farmers Training	2	24/1/18	112	-
	Groundnut	4	19.12.18, 25.2.18, 23.3.18	38	-
	Mango	4	19.12.18,5.1.18, 9.2.18,21.2.18	120	
	Bottle gourd	2	12.12.18, 9.2.18	25	
	Brinjal	2	9.2.18, 13.4.18	15	
3	Media coverage	-	-	-	-
4	Training for extension functionaries	2	2/12/18	58	-
	Groundnut	2	19.12.18, 25.2.18	4	
	Mango	4	19.12.18,5.1.18, 9.2.18,21.2.18	2	
	Bottle gourd	2	12.12.18, 9.2.18	3	

Performance of Frontline demonstrations

Frontline demonstrations on crops

Crop	Thematic Area	technology demonstrated	Name of the Variety/ Hybrid		No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
			Domo	Check			Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
							High	Low	Average										
Pulses																			
Oilseeds																			
Groundnut	IPDM	Demonstration of Ecofriendly pest and disease management in Groundnut	Dharani 13	Dharani 13	15	3	30.5	26	28.25	28	8	47968	119000	71032	2.4	51825	104000	52175	2.0
Cereals																			
Paddy	ICM	Demonstration of New Paddy variety and ICM Practices	CO-52	CO-49	15	6	87	72	79.5	68	14.5	37712	91496	53782	2.4	41000	71200	30200	1.7
Paddy	Seed Production	Demonstration and seed production of new paddy variety TKM-13	TKM-13	BPT-5204	15	6	75	60	67.5	56	17.0	40292	94746	54454	1.8	44250	68200	23950	1.5
Commercial crops																			
Millets																			
Vegetables																			
Bottle gourd	ICM	Demonstration of PLR 1 variety	PLR 1	Local	15	3	22	19	20.5	18	12.0	35000	11000	75000	3.17	39000	90000	51000	2.30
Brinjal	ICM	Arka Anand	Arka Anand (F1)	Ujjala	15	3	45	41	43	40	7.50	52500	200000	147500	3.80	54875	150000	95125	2.73
Fruits																			
Mango	Pest Management	Fruit fly management	Baganapalli	Baganapalli	30	3	5.5	4.5	5.0	4.5	10.0	63250	164625	101375	2.5	72500	149250	76750	2.0
Plantation crops																			
Spices and condiments																			

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal/ Poultry/ Birds, etc)	Major parameters Milk Yield in Litres		% change in major parameter	Other parameter Body weight in Kg		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle																	
	Dairy	Demonstration of mineral blocks as nutritional supplement in low yielding grazing dairy animals	20	100	6.24	3.46	80	238	226	98	188	90	1.92	66	104	38	1.58
					Disease Incidence (%)		**Milk yield (in litres)**										
					Demo	**check**		**Demo**	**Check**								
	Dairy	Demonstration of Ethno Veterinary Herbal medicine for the treatment of Enteritis in Cattle.	.20	40	16	78	79	6.65	3.60	140	258	118	1.84	112	140	28	1.25
Buffalo																	
Dairy																	
Poultry																	
					Marketing weight (gms)		**Feed intake**										
					Demo	**Check**		**Demo**	**Check**								
	Quail	Demonstration of package of practices to prevent chick mortality in Japanese Quail farming	15	100	235	192	22	611	743	1738	3320	1582	1.91	1693	2667	974	1.58
Sheep																	
Goat																	

FLD 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.)			
					Demo Ration (Kg/Ha)	Check (Kg/Ha)		Demo Ration (Kg/fish)	Check (Kg/fish)	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Fisheries																	
	Freshwater fish farming	Demonstration of Pangasius catfish culture for short seasonal farm ponds	7	7	5153.7	3920.4	23.93	0.41	0.36	172612	360759	188147	2.09	131557	196020	64463	1.49
Fisheries																	
					Demo	Check		Demo	Check								
					(% / Kg of fish)	(% / Kg of fish)		(Colour)	(Colour)								
	Fish value added products	Demonstration of Masi dry fish preparation through low cost smoking kiln	20	2	20	16.5	17.5	Dark brown	Light brown	190	300	110	1.58	160	200	40	1.25

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Mushroom																
Apiculture																
Maize Sheller																
Value Addition																
	Demonstration of Nutrient retention in parboiled millets	10	1	Head rice % recovery	Broken rice	20 % increase in Head rice	Nutrient retention	Raw millet rice	45/kg	100/kg	55	1:2	40	70	30	1:1.7
	Demonstration of Extension of shelf life of paneer using herbs & spices	10	2	Increase in shelf life	Low shelf life	25% increase in shelf life	Flavour	Bland taste	185/kg	350/kg	165	1:1.9	183	275	92	1:1.5
Vermi Compost																

FLD on Women Empowerment:Nil

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

FLD on Farm Implements and Machinery:Nil

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

FLD on Other Enterprise: Kitchen Gardening : Nil

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

FLD on Demonstration details on crop hybrids *(Details of Hybrid FLDs implemented during 2016-17):* **Nil**

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

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

Crop	Source of fund	Thematic Area	technology demonstrated	Name of the Variety/ Hybrid		No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
				Domo	Check			Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
								High	Low	Average										
Poultry	TANUVAS	Poultry	Assessment on the Performance of Pekin Ducks in Integrated Farming System model	Pekin ducks	Desi ducks	5	-	1.900	1.700	1.800	1.250	44	4955	8455	3500	1.71	4955	5931	976	1.19
Groundnut	ICAR	ICM	ICM Practices Demonstration in variety Dharani-13	Dharani 13	TMV 13	175	70	18	15	16	14	11	37800	97050	59250	2.5	35312	69000	33688	2.0
Greengram																				
	ICAR	ICM	ICM Practices Demonstration in variety VBN-3	VBN-3	CO-7	75	30	8.8	6.5	8.51	7.00	17.7	40810	67200	26390	1.9	38570	59325	20755	1.5

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle																	
Buffalo																	
Dairy																	
Poultry																	
	Quail farming	Demonstration on Empowerment of Rural Youth through Quail Farming	5	100	3	9	66	610	730	1771	3388	1617	1.91	1993	3185	1192	1.6
Sheep																	
Goat																	

FLD on Fisheries :Nil

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)

FLD on Other enterprises : Nil

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

FLD on Women Empowerment: Nil

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

FLD on Farm Implements and Machinery **: Nil**

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

4. Training Programmes

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										
Weed Management	1	8	3	11	4	1	5	12	4	16
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	1	7	3	10	0	1	1	7	4	11
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	3	29	10	39	19	4	23	48	14	62
Micro Irrigation/irrigation	2	40	4	44	5	1	6	45	5	50
Seed production	1	1	2	3	10	1	11	11	13	24
Nursery management	1	1	11	12	18	3	21	19	14	33
Integrated Crop Management	0	0	0	0	0	0	0	0	0	0
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**9**	**86**	**33**	**119**	**56**	**11**	**67**	**142**	**55**	**196**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Mushroom Production	4	76	42	48	9	0	9	83	31	128
Hybrid Vegetable cultivation	1	2	1	3	0	0	0	2	1	3
Roof Top Gardening	1	6	2	8	0	0	0	6	2	8
Green House Vegetable Cultivation	1	34	0	24	8	0	8	32	0	32
Total (a)	**7**	**118**	**45**	**83**	**17**	**0**	**17**	**135**	**45**	**180**
b) Fruits										
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (b)	0	0	0	0	0	0	0	0	0	0
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Commercial Flowers cultivation	1	3	2	5	0	0	0	3	2	5
Total (c)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology Management of Coconut Plantation	2	0	2	0	0	0	0	2	0	2
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	**0**	**2**
e) Tuber crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)										

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
GT (a-g)										
III Soil Health and Fertility Management										
Soil fertility management	2	35	2	37	2	3	5	37	5	42
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	3	40	4	44	5	1	6	45	5	50
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	5	161	22	193	25	3	28	186	25	211
Micro nutrient deficiency in crops	3	29	10	39	19	4	23	48	14	62
Nutrient Use Efficiency	2	40	4	44	5	1	6	45	5	50
Balance use of fertilizers	1	1	2	3	10	1	11	11	3	14
Soil and Water Testing	1	1	11	12	18	3	21	19	14	33
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**17**	**307**	**55**	**372**	**84**	**16**	**100**	**391**	**81**	**472**
IV Livestock Production and Management										
Dairy Management	5	171	32	203	35	3	38	206	35	241
Poultry Management	3	215	17	232	53	17	70	268	34	302
Piggery Management	3	40	4	44	5	1	6	45	5	50
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	0	0	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0	0	0
.Feed & fodder technology	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (Goat farming)	4	243	21	264	51	3	54	294	24	318
Total	**15**	**669**	**74**	**743**	**144**	**24**	**168**	**813**	**98**	**911**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet	1	2	8	10	1	2	3	3	10	13
Designing and development for high nutrient efficiency diet	1	2	14	16	0	0	0	2	14	16
Minimization of nutrient loss in processing	1	11	7	18	3	0	3	14	7	21
Processing and cooking	3	29	10	39	19	4	23	48	14	62
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0
Value addition	3	30	27	57	22	3	25	52	30	82
Women empowerment	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
technologies										
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**9**	**74**	**66**	**140**	**45**	**9**	**54**	**119**	**75**	**194**
VI Agril. Engineering										
Farm Machinary and its maintenance	1	4	2	6	3	2	5	7	4	11
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices										
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	1	5	3	8	4	2	6	9	5	14
Post Harvest Technology	1	4	3	7	4	2	6	8	5	13
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**3**	**13**	**8**	**21**	**11**	**6**	**17**	**24**	**14**	**38**
VII Plant Protection										
Integrated Pest Management	2	16	0	16	0	0	0	16	0	16
Integrated Disease Management	1	5	0	5	0	0	0	5	0	5
Bio-control of pests and diseases	1	1	0	1	0	0	0	1	0	1
Production of bio control agents and bio pesticides	1	14	1	15	0	0	0	14	1	15
Others (pl specify) Azolla cultivation, Apiculture and Organic manure preparation	5	100	20	120	5	0	5	105	20	125
Total	**10**	**136**	**21**	**157**	**5**	**0**	**5**	**141**	**21**	**162**
VIII Fisheries										
Integrated fish farming	1	32	4	36	3	0	3	35	4	39
Carp breeding and hatchery management	1	26	3	29	3	0	3	29	3	32
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	1	18	1	19	7	0	7	25	1	26
Hatchery management and culture of freshwater prawn	1	27	3	30	3	0	3	30	3	33
Breeding and culture of ornamental fishes	1	8	3	11	4	1	5	12	4	16
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	1	7	3	10	0	1	1	7	4	11
Shrimp farming	1	4	3	7	3	0	3	7	3	10
Edible oyster farming	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (Brackishwater fish, Crab, Murrel, Tilapia & Catfish culture)	5	97	11	108	23	2	25	120	13	133
Total	**12**	**219**	**31**	**250**	**46**	**4**	**50**	**265**	**35**	**300**
IX Production of Inputs at site										
Seed Production	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Apiculture	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	**84**	**1622**	**335**	**1885**	**408**	**70**	**478**	**2032**	**413**	**2445**

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	0	0	0	0	0	0	0	0	0	0
Weed Management	0	0	0	0	0	0	0	0	0	0
Resource Conservation Technologies	1	76	13	89	9	3	12	85	16	101
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	1	18	6	24	3	1	4	21	7	28
Micro Irrigation/irrigation	0	0	0	0	0	0	0	0	0	0
Seed production	2	62	11	73	8	1	9	70	12	82
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	1	3	28	31	0	0	6	3	28	31
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	4	6	56	62	0	0	12	6	56	62
Production of organic inputs	1	39	11	50	3	0	3	42	11	53
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**10**	**204**	**125**	**329**	**23**	**5**	**46**	**227**	**130**	**357**
II Horticulture	0	0	0	0	0	0	0	0	0	0
a) Vegetable Crops	0	0	0	0	0	0	0	0	0	0
Production of low value and high valume crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (a)	0	0	0	0	0	0	0	0	0	0
b) Fruits	0	0	0	0	0	0	0	0	0	0
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Total (b)	0	0	0	0	0	0	0	0	0	0
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	0	0	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management										
Soil fertility management	4	124	131	165	33	16	49	157	147	304
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	2	3	28	31	0	0	0	3	28	31
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	4	6	56	62	0	0	0	6	56	62
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**10**	**133**	**215**	**258**	**33**	**16**	**49**	**166**	**231**	**397**
IV Livestock Production and Management										
Dairy Management	13	207	128	335	37	6	43	244	134	378
Poultry Management	6	219	55	274	56	30	86	275	85	360
Piggery Management	3	40	4	44	5	1	6	45	5	50
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	0	0	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0	0	0
Feed & fodder technology	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	5	243	41	284	51	3	54	294	44	338
Total	**27**	**709**	**228**	**937**	**149**	**40**	**189**	**858**	**268**	**1126**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	12	30	42	2	11	13	14	41	55
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	1	4	12	16	0	4	4	4	16	20
Processing and cooking	2	3	28	31	0	0	6	3	28	31
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0		0	0	0	0	0
Value addition	4	24	41	65	0	5	68	24	46	70
Women empowerment	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	1	0	12	12	0	0	9	0	12	12
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**9**	**43**	**123**	**166**	**2**	**20**	**100**	**45**	**143**	**188**
VI Agril. Engineering										
Farm Machinary and its maintenance	0	0	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
systems										
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	2	16	6	22	5	6	11	21	12	33
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	1	11	5	16	5	4	9	16	9	25
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**3**	**27**	**11**	**38**	**10**	**10**	**20**	**37**	**21**	**58**
VII Plant Protection										
Integrated Pest Management	1	12	1	13	0	0	0	12	2	14
Integrated Disease Management	1	14	2	16	0	0	0	14	2	16
Bio-control of pests and diseases	2	24	6	30	0	0	0	24	6	30
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0
Others (pl specify) Organic manure production	1	19	6	25	0	0	0	19	6	25
Total	**5**	**69**	**15**	**84**	**0**	**0**	**0**	**69**	**16**	**85**
VIII Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	1	0	14	14	0	0	0	0	14	14
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	1	2	14	16	0	0	0	2	14	16
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	1	0	12	12	0	0	0	0	12	12
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	3	17	48	65	0	0	0	17	48	65
Others (Freshwater fish culture in farm, irrigated & village ponds)	4	38	24	62	7	14	21	45	38	83
Total	**10**	**57**	**112**	**169**	**7**	**14**	**21**	**64**	**126**	**190**
IX Production of Inputs at site										
Seed Production	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Apiculture	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0	0	0
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0
GRAND TOTAL	**74**	**1242**	**829**	**1981**	**224**	**105**	**425**	**1466**	**935**	**2401**

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	0	0	0	0	0	0	0	0	0	0
Resource Conservation Technologies	5	161	22	193	25	3	28	186	25	211
Cropping Systems	3	29	10	39	19	4	23	48	14	62
Crop Diversification	2	40	4	44	5	1	6	45	5	50
Integrated Farming	1	1	2	3	10	1	11	11	3	14
Micro Irrigation/irrigation	1	1	11	12	18	3	21	19	14	33
Seed production	5	53	12	65	25	3	28	78	15	93
Nursery management	1	1	2	3	10	1	11	11	3	14
Integrated Crop Management	3	29	10	39	19	4	23	48	14	62
Soil & water conservatioin	2	40	4	44	5	1	6	45	5	50
Integrated nutrient management	1	1	2	3	10	1	11	11	3	14
Production of organic inputs	1	1	11	12	18	3	21	19	14	33
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**25**	**357**	**90**	**457**	**164**	**25**	**189**	**521**	**115**	**636**
II Horticulture										
a) Vegetable Crops	0	0	0	0	0	0	0	0	0	0
Production of low value and high valume crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Mushroom Production	4	76	42	118	9	0	9	85	42	127
Hybrid Vegetable cultivation	1	2	1	3	0	0	0	2	1	3
Roof Top Gardening	1	6	2	8	0	0	0	6	2	8
Green House Vegetable Cultivation	1	34	0	34	8	0	8	32	0	32
Total (a)	**7**	**118**	**45**	**163**	**17**	**0**	**17**	**125**	**45**	**170**
b) Fruits										
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (b)	0	0	0	0	0	0	0	0	0	0
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices	0	0	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	0	0	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management										
Soil fertility management	5	43	32	75	5	1	6	48	33	81
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	5	161	22	193	25	3	28	186	25	211

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production and use of organic inputs	7	35	66	101	19	4	23	54	70	124
Management of Problematic soils	2	40	4	44	5	1	6	45	5	50
Micro nutrient deficiency in crops	1	1	2	3	10	1	11	11	3	14
Nutrient Use Efficiency	1	1	11	12	18	3	21	19	14	33
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**21**	**281**	**137**	**428**	**82**	**13**	**95**	**363**	**150**	**513**
IV Livestock Production and Management										
Dairy Management	18	378	160	538	72	9	81	450	169	619
Poultry Management	9	434	72	506	109	47	156	543	119	662
Piggery Management	**6**	**80**	**8**	**88**	**10**	**2**	**12**	**90**	**10**	**100**
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	0	0	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0	0	0
Feed & fodder technology	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	9	486	62	548	102	6	108	588	68	656
Total	**42**	**1378**	**302**	**1680**	**293**	**64**	**357**	**1671**	**366**	**2037**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	12	30	42	2	11	13	14	41	55
Design and development of low/minimum cost diet	1	2	8	10	1	2	3	3	10	13
Designing and development for high nutrient efficiency diet	1	2	14	16	0	0	0	2	14	16
Minimization of nutrient loss in processing	2	15	19	34	3	4	7	18	23	41
Processing and cooking	5	32	38	70	19	4	29	51	42	93
Gender mainstreaming through SHGs	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Storage loss minimization techniques	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Value addition	7	54	68	122	22	8	30	76	76	152
Women empowerment	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Location specific drudgery reduction technologies	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Rural Crafts	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Women and child care	1	0	12	12	0	0	9	0	12	12
Others (pl specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**18**	**117**	**189**	**306**	**47**	**29**	**91**	**164**	**218**	**382**

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
VI Agril. Engineering										
Farm Machinary and its maintenance	1	4	2	6	3	2	5	7	4	11
Installation and maintenance of micro irrigation systems	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Use of Plastics in farming practices	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Production of small tools and implements	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Repair and maintenance of farm machinery and implements	2	16	6	22	5	6	11	21	12	33
Small scale processing and value addition	1	5	3	8	4	2	6	9	5	14
Post Harvest Technology	**2**	**15**	**8**	**23**	**9**	**6**	**15**	**24**	**14**	**38**
Others (pl specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**6**	**40**	**19**	**59**	**21**	**16**	**37**	**61**	**35**	**96**
VII Plant Protection										
Integrated Pest Management	3	28	1	29	0	1	1	28	2	30
Integrated Disease Management	2	19	2	21	0	0	0	19	2	21
Bio-control of pests and diseases	3	25	6	31	0	0	0	25	6	31
Production of bio control agents and bio pesticides	1	14	1	15	0	0	5	14	1	15
Others (pl specify)	6	119	26	145	5	1	6	124	26	150
Total	**15**	**205**	**36**	**241**	**5**	**1**	**6**	**210**	**37**	**247**
VIII Fisheries										
Integrated fish farming	1	32	4	36	3	0	3	35	4	39
Carp breeding and hatchery management	1	26	3	29	3	0	3	29	3	32
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	2	18	15	33	7	0	7	25	15	40
Hatchery management and culture of freshwater prawn	1	27	3	30	3	0	3	30	3	33
Breeding and culture of ornamental fishes	2	10	17	27	4	1	5	14	18	32
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	2	7	15	22	0	1	1	7	16	23
Shrimp farming	1	4	3	7	3	0	3	7	3	10
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	3	17	48	65	0	0	0	17	48	65
Others (Brackishwater fish, Crab, Murrel, Tilapia & Catfish culture; Freshwater fish culture in farm, irrigated & village ponds)	9	135	35	170	30	16	46	165	51	216
Total	**22**	**276**	**143**	**419**	**53**	**18**	**71**	**329**	**161**	**490**

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
IX Production of Inputs at site										
Seed Production	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Apiculture	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0	0	0
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	**158**	**2864**	**1164**	**3866**	**632**	**175**	**903**	**3498**	**1348**	**4846**

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
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	20	1	21	0	0	0	20	1	21
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Bee-keeping	1	17	4	21	2	0	2	19	4	23
Sericulture	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Value addition	2	14	11	25	9	2	11	23	13	36
Small scale processing	1	9	0	9	2	2	4	11	2	13
Post Harvest Technology	1	2	7	9	0	3	3	2	10	12
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	5	171	32	203	35	3	380	206	35	241
Sheep and goat rearing	4	243	21	264	51	3	54	294	24	318
Quail farming	2	15	12	27	0	3	3	15	15	30
Piggery	3	40	4	44	5	1	6	45	5	50
Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	3	215	17	232	53	17	70	268	34	302
Ornamental fisheries	1	8	3	11	4	1	5	12	4	16
Composite fish culture	1	18	1	19	7	0	7	25	1	26
Freshwater prawn culture	1	27	3	30	3	0	3	30	3	33
Shrimp farming	1	4	3	7	3	0	3	7	3	10
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**27**	**803**	**119**	**922**	**174**	**35**	**551**	**977**	**154**	**1131**

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
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Value addition	1	4	23	27	0	17	17	4	40	44
Small scale processing	1	0	18	18	0	0	0	0	18	18
Post Harvest Technology	2	14	51	65	0	2	6	8	53	61
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	8	36	96	132	2	3	5	38	99	137
Sheep and goat rearing	1	0	20	20	0	0	0	0	20	20
Quail farming	0	0	0	0	0	0	0	0	7	32
Piggery	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	3	4	38	42	3	13	16	7	51	58
Ornamental fisheries	1	2	14	16	0	0	0	2	14	16
Composite fish culture	1	0	14	14	0	0	0	0	14	14
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	3	17	48	65	0	0	0	17	48	65
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**21**	**77**	**322**	**399**	**5**	**35**	**44**	**76**	**364**	**465**

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
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	20	1	0	0	0	0	20	1	21
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Bee-keeping	1	17	4	21	2	0	2	19	4	23
Sericulture	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	13	207	128	335	37	6	385	244	134	378
Sheep and goat rearing	5	243	41	284	51	3	54	294	44	338
Quail farming	2	15	12	27	0	3	3	15	15	30
Piggery	3	40	4	44	5	1	6	45	5	50
Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	6	219	55	274	56	30	86	275	85	360
Ornamental fisheries	2	10	17	27	4	1	5	14	18	32
Composite fish culture	2	18	15	33	7	0	7	25	15	40
Freshwater prawn culture	1	27	3	30	3	0	3	30	3	33
Shrimp farming	1	4	3	7	3	0	3	7	3	10
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	3	17	48	65	0	0	0	17	48	65
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**40**	**837**	**331**	**1147**	**168**	**44**	**554**	**1005**	**375**	**1380**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	3	72	31	103	11	6	17	83	37	120
Integrated Pest Management	1	28	12	40	0	0	0	38	12	40
Integrated Nutrient management	1	61	7	68	3	2	5	64	9	73
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	1	38	12	50	0	0	0	38	12	50
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**6**	**199**	**62**	**261**	**14**	**8**	**22**	**223**	**70**	**283**

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	3	112	11	123	4	1	5	116	12	128
Integrated Pest Management	1	12	0	12	0	0	0	12	0	12
Integrated Nutrient management	1	58	6	64	13	2	15	71	8	79
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0	0	0

Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	1	38	12	50	0	0	0	38	12	50
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**6**	**220**	**29**	**249**	**17**	**3**	**20**	**237**	**32**	**269**

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	6	263	41	304	33	12	45	296	53	349
Integrated Pest Management	2	50	12	62	0	0	0	50	12	62
Integrated Nutrient management	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	1	38	12	50	0	0	0	38	12	50
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	**9**	**351**	**65**	**416**	**33**	**12**	**45**	**384**	**77**	**461**

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	0	0	0	0	0	0	0	0	0	0
Commercial production of vegetables	0	0	0	0	0	0	0	0	0	0
Production and value addition										
Fruit Plants	0	0	0	0	0	0	0	0	0	0
Ornamental plants	0	0	0	0	0	0	0	0	0	0
Spices crops	0	0	0	0	0	0	0	0	0	0
Soil health and fertility management	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site	0	0	0	0	0	0	0	0	0	0
Methods of protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Post harvest technology and value addition										
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Farm machinery										
Farm machinery, tools and implements	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Livestock and fisheries										
Livestock production and management	2	433	585	1018	0	0	0	433	585	1018
Animal Nutrition Management	0	0	0	0	0	0	0	0	0	0
Animal Disease Management	0	0	0	0	0	0	0	0	0	0
Fisheries Nutrition	0	0	0	0	0	0	0	0	0	0
Fisheries Management	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	3	56	28	94	36	16	52	92	44	136
Total	**5**	**489**	**613**	**1112**	**36**	**16**	**52**	**525**	**629**	**1154**
Home Science										
Household nutritional security	0	0	0	0	0	0	0	0	0	0
Economic empowerment of women	0	0	0	0	0	0	0	0	0	0
Drudgery reduction of women	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Agricultural Extension										
Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**5**	**489**	**613**	**1112**	**36**	**16**	**52**	**525**	**629**	**1154**

Name of sponsoring agencies involved:

1.Directorate of Animal Husbandry and Veterinary services and
2.Tamil Nadu Livestock Development Agency (TNLDA)

Details of vocational training programmes carried out by KVKs for rural youth

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										
Commercial floriculture	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0
Commercial vegetable production	0	0	0	0	0	0	0	0	0	0

Integrated crop management	0	0	0	0	0	0	0	0	0	0
Organic farming	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Post harvest technology and value addition										
Value addition	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Livestock and fisheries										
Dairy farming	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0
Poultry farming	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Income generation activities										
Vermicomposting	0	0	0	0	0	0	0	0	0	0
Production of bio-agents, bio-pesticides,	0	0	0	0	0	0	0	0	0	0
bio-fertilizers etc.	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery	0	0	0	0	0	0	0	0	0	0
and implements	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0
Mushroom cultivation	0	0	0	0	0	0	0	0	0	0
Nursery, grafting etc.	0	0	0	0	0	0	0	0	0	0
Tailoring, stitching, embroidery, dying etc.	0	0	0	0	0	0	0	0	0	0
Agril. para-workers, para-vet training	0	0	0	0	0	0	0	0	0	0
Others (pl. specify) Tailoring, stitching, embroidery, dying etc.	1	1	19	20	0	0	0	1	19	20
Total	**1**	**1**	**19**	**20**	**0**	**0**	**0**	**1**	**19**	**20**
Agricultural Extension										
Capacity building and group dynamics	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total	**1**	**1**	**19**	**20**	**0**	**0**	**0**	**1**	**19**	**20**

5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	15	2697	50	2747
Diagnostic visits	24	24	0	24
Field Day	6	107	10	117
Group discussions	16	1968	5	1973
Kisan Ghosthi	0	0	0	0
Film Show	15	1669	50	1719
Self -help groups	3	60	0	60
Kisan Mela	1	788	15	803
Exhibition	6	2054	40	2094
Scientists' visit to farmers field	24	24	0	24
Plant/animal health camps	1	112	8	120
Farm Science Club	1	14	0	14
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	2	1018	24	1042
Method Demonstrations	17	1100	29	1129
Celebration of important days	5	1005	12	1017
Special day celebration	2	123	4	127
Exposure visits	6	431	10	441
Others (pl. specify)	47	47	0	47
Total	**191**	**13241**	**257**	**13498**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	11
News paper coverage	4
Popular articles	17
Radio Talks	26
TV Talks	9
Animal health camps	1
Others (pl. specify)Research Articles	2
Research abstracts	6
Training Manual	4
Total	**80**

Messages sent

MOBILE ADVISORY SERVICES THROUGH MKISAN PORTAL

(While filling mobile advisory data, only fill numbers under 'Type of messages'. Please don't add any text)

No of registered farmers:

Types of Messages	Type 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	7	3811	4	2492							3	1723	14	8026
Voice only														
Voice & Text both														
Total Messages	7	3811	4	2492							3	1723	14	8026
Total farmers Benefitted		3811		2492							3	1723	14	8026

MOBILE ADVISORY SERVICES THROUGH OTHERS: Nil

(While filling mobile advisory data, only fill numbers under 'Type of messages'. Please don't add any text)

No of registered farmers:

Types of Messages	Type 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														
Voice only														
Voice & Text both														
Total Messages														
Total farmers Benefitted														

6. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
Gosthies			
Lectures organised	2	1018	Soil testing, Honeybee rearing, Parthenium weed management, Integrated fish culture, Health and Nutrition, Role Women in agriculture
Exhibition	5	1044	Indigenous dairy breeds and Newer livestock technologies, Value added food products, soil testing, newer technologies in crop and vegetables
Film show	15	1669	Newer Technologies in Livestock, crop, vegetables and fisheries
Fair			-
Farm Visit			-
Diagnostic Practicals			-
Distribution of Literature (No.)	10	2000	Newer technologies in Livestock, crop, vegetables, fisheries and value daddtion
Distribution of Seed (q)	4	305	Paddy, Groundnut and Pulses distributed through projects
Distribution of Planting materials (No.)			-
Bio Product distribution (Kg)	1	2	Fish feed
Bio Fertilizers (q)			-
Distribution of fingerlings			-
Distribution of Livestock specimen (No.)			-
Total number of farmers visited the technology week		6038	

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

Production of seeds by the KVKs (give quantity of seed in quintals only)

Crop	Name of the crop	Name of the variety /hybrid	Quantity of seed produced (q)	Value (Rs)	Seed supplied to farmers		Supplied to other agencies (q)
					Quantity (q)	No of farmers	
Cereals	Paddy	Co-52	32	20700	32	20	-
			0	0	0	0	
			0	0	0	0	
Oilseeds			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Pulses	Black gram	VBN-6	0.46	3680	0.46	10	-
			0	0	0	0	
			0	0	0	0	
Commercial crops			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Vegetables			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Flower crops			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Spices			0	0	0	0	

			0	0	0	0	
			0	0	0	0	
Fodder crop seeds			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Fiber crops			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Forest Species			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Others			0	0	0	0	
Value added Food	Products		146	25075	535	47	-
Seeds	Vegetable Seeds		0.07	7560	0.07	168	-
Grow Bags	Grow Bags		52	5870	52	19	-
			0	0	0	0	
			0	0	0	0	
Total			**230.53**	**62885**	**619.53**	**264**	

Production of planting materials by the KVKs

Crop	**Name of the crop**	**Name of the variety / hybrid**	**Number**	**Value (Rs.)**	**Planting material supplied to farmers**		**Supplied to other agencies (No)**
					No	**No of farmers**	
Commercial			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Vegetable seedlings			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Fruits			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Ornamental plants			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Medicinal and Aromatic	Medicinal Plants		535	25075	535	47	
			0	0	0	0	
			0	0	0	0	
Plantation			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Spices			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Tuber			0	0	0	0	

			0	0	0	0	
			0	0	0	0	
Fodder crop saplings	Fodder grasss	Hybrid Co-3,Co-4 and Co-5	433750	216875	433750	128	
			0	0	0	0	
			0	0	0	0	
Forest Species			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Others			0	0	0	0	
			0	0	0	0	
			0	0	0	0	
Total			**434285**	**241950**	**434285**	**175**	

Production of Bio-Products

Bio Products	**Name of the bio-product**	**Quantity Kg**	**Value (Rs.)**	**Supplied to farmers**		**Supplied to other agencies**
				kg	**No of farmers**	**kg**
Bio Fertilizers	Vermi compost	4726	47260	4726	264	-
	Azolla	300	6000	289	5780	-
		0	0	0	0	
Bio-pesticide		0	0	0	0	
		0	0	0	0	
		0	0	0	0	
Bio-fungicide		0	0	0	0	
		0	0	0	0	
		0	0	0	0	
Bio Agents		0	0	0	0	
		0	0	0	0	
		0	0	0	0	
Others		0	0	0	0	
	Panchakavya (litres)	700	7000	645	6450	-
Total		**5026kg 700 litres**	**60260**	**5015kg 645 litres**	**12494**	

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Supplied to farmers		Supplied to other agencies (No)
				No	No of farmers	
Dairy animals		0	0	0	0	
Cows		0	0	0	0	
Buffaloes		0	0	0	0	
Calves		0	0	0	0	
Others (Pl. specify)		0	0	0	0	
		0	0	0	0	
Poultry		0	0	0	0	
Broilers		0	0	0	0	
Layers	Grama priya chicks	1172	52740	1172	21	
Duals (broiler and layer)	Nandanam Quails	213	5120	213	14	
Japanese Quail	0	0	0	0	0	
Turkey	0	0	0	0	0	
Emu						
Ducks	Pekin	272	3615	272	33	
Others (Pl. specify) Livestock Projects	0	7	28330	7	7	
	0	0	0	0	0	
Piggery	0	0	0	0	0	
Piglet	0	0	0	0	0	
Others (Pl.specify)	0	0	0	0	0	
Fisheries	0	0	0	0	0	
Indian carp	0	0	0	0	0	
Exotic carp	0	0	0	0	0	
Others (Pl. specify) (ornamental Fishes)	0	1509	4020	1509	43	
	0	0	0	0	0	
Total		**1788**	**35965**	**1788**	**83**	

8. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	459	127	12	46950
Water	128	81	19	17470
Plant	0	0	0	0
Manure	0	0	0	0
Others (pl.specify)	0	0	0	0
	0	0	0	0
Total	**587**	**208**	**31**	**64420**

9. SCIENTIFIC ADVISORY COMMITTEE

Date of SAC meeting	Number of members attended
17.02.2017	23
06.11.2017	22

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

SAC proceedings - 17.02.2017

<table>
<tr><th>Sl No.</th><th>Recommendations</th><th>Action taken</th></tr>
<tr><td>1.</td><td colspan="2">Th. V.Manoharan, Progressive farmer</td></tr>
<tr><td></td><td>Services of Mobile Veterinary dispensary required for our village to treat the animals once in a week</td><td>Mobile Veterinary dispensary has been requested from the Animal Husbandry Department, Kancheepuram district. FTC, Kancheepuram Ambulance Service can be utilized for animal emergency treatment at Pattumudaiyarkuppam.</td></tr>
<tr><td></td><td>Training to be given to SHG members in Horticulture and value addition on vegetables and mushroom</td><td>Horticulture training was given to ATMA, Amma group on Pro-tray seedling preparation and Nursery management.
Training programmes and demonstration on Value added Mushroom Products conducted at KVK Kattupakkam are as follows.
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>06.04.17
06.06.17
08.08.17
05.10.17</td><td>Value added Mushroom Products</td><td>4</td><td>103</td></tr>
<tr><td>20.09.17
&
21.09.17
05.10.17
06.10.17</td><td>Value added Vegetable Products</td><td>3</td><td>10

30

60</td></tr>
<tr><td></td><td>Total</td><td>7</td><td>203</td></tr>
</table></td></tr>
<tr><td></td><td>More no. of mushroom and spawn production training from KVK need to be arranged</td><td>Training programmes and demonstration on mushroom and spawn production conducted are given below
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>14.03.17</td><td>Guest lecture and demonstration was given to the participants of NIEPMD, Muttukadu</td><td>1</td><td>52</td></tr>
<tr><td>5.4.17

5.10.17
6.10.17</td><td>On campus training programme on Mushroom production</td><td>3</td><td>131</td></tr>
<tr><td></td><td>Total</td><td>4</td><td>183</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>• Proposal on Establishment of Oyster mushroom spawn production unit was submitted to the Joint Director of Agriculture, Kancheepuram for funding under ATMA scheme.</td></tr>
<tr><td></td><td>Custom hiring centre for farm machineries to be established at KVK and village levels</td><td>Implements available in KVK have been planned for custom hiring through price fixation in the coming years duly contacting the Agricultural Engineering department.

Agricultural Engineering SMS has been posted on 17.10.2017. Necessary steps will be taken to establish hiring centre at KVK.</td></tr>
<tr><td></td><td>Farmers award should be given for elite progressive farmers annually</td><td>Farmers' selection was made and nominated for Best farmer award during TANUVAS foundation day celebrations.</td></tr>
<tr><td>2</td><td colspan="2">Th.Palani, Progressive farmer</td></tr>
<tr><td></td><td>Ensure good quality of new paddy variety seeds to be available in KVK, Kattupakkam</td><td>
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>07.08.17</td><td>Good quality new paddy variety seeds were distributed to FLD farmers through KVK FLD project on 07.08.2017.</td><td>2</td><td>30</td></tr>
</table>
Paddy seeds Co-51, 1050 Kgs. available at KVK because of deficit of rain fall seeds were unable to sell during last year.

Good quality and elite variety of paddy CO 52, released by Tamil Nadu Agricultural University in the year 2017 were distributed to the farmers through KVK FLD project on 07.08.2017.</td></tr>
<tr><td></td><td>Paddy Seed storage godown is required at Govindavadi village for the benefit of farmers</td><td>• Agricultural Engineering department and Agriculture department contacted for the same
• Studies were conducted on possibility of establishment of seed storage godown at Govindavadi. The recommendation is communicated in agricultural department.</td></tr>
<tr><td>3</td><td colspan="2">Th.Mani, Progressive farmer</td></tr>
<tr><td></td><td>New paddy variety Co-52 seeds is to be supplied during the coming season</td><td>New paddy variety Co 52, released by TNAU in the year 2017 was supplied to the farmers on 07.08.17. Exactly 400 Kgs of seeds given to 50 number of farmers.</td></tr>
<tr><td></td><td>Training on value addition may be given for youth</td><td>Four training programmes were given to 50 Rural youth mainly on value added Milk, Meat, Millet and Fruit products as given below.
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>12.04.17</td><td>Value added Millets Products.</td><td>1</td><td>23</td></tr>
<tr><td>15.06.17</td><td>Value added Fruits Products.</td><td>1</td><td>9</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>19.07.17</td><td>Value added Meat Products.</td><td>1</td><td>7</td></tr>
<tr><td>23.08.17</td><td>Value added milk Products.</td><td>1</td><td>11</td></tr>
<tr><td></td><td>Total</td><td>4</td><td>50</td></tr>
</table>
</td></tr>
<tr><td></td><td>Training on livestock farming should be given</td><td>Regular livestock farming training have been given to the rural farmers. Livestock trainings such as ten on campus training programme for 464 beneficiaries, eight off campus training programme for 245 beneficiaries and two sponsored training programmes for 618 beneficiaries were provided.</td></tr>
<tr><td>4</td><td colspan="2">Tmt.Gowri Kanniappan, Progressive farmer</td></tr>
<tr><td></td><td>Native chicks and hatching eggs required for rearing regularly</td><td>Native chicks and table eggs are sold to farmers. Hatching eggs are made available from Poultry farm, Kattupakkam for sale to the farmers.
<table>
<tr><th>Name of the inputs</th><th>No. of inputs</th><th>No. of persons</th></tr>
<tr><td>Poultry Chicks</td><td>1037 Nos.</td><td>22</td></tr>
<tr><td>Eggs</td><td>659 Nos.</td><td>39</td></tr>
</table>
</td></tr>
<tr><td></td><td>Veterinary medicines to be made available at KVK, Kattupakkam</td><td>Veterinary medicine representatives were invited for the training programmes and availability of Veterinary medicines & vaccines in the nearby shops were explained to the farmers attended training programme. Further advisories are provided to the needy farmers to avail medicines from their nearby villages.</td></tr>
<tr><td></td><td>Vegetable seeds and greens seeds are required and training may be given</td><td>Vegetable and greens seeds were supplied to the farmers through Revolving Fund. Protray nursery seedlings were supplied through Revolving Fund.
Brinjal - 2650 Nos
Chilies - 3800 Nos
Tomato - 1100 Nos</td></tr>
<tr><td>5</td><td colspan="2">Th.K. Baskaran, Progressive farmer</td></tr>
<tr><td></td><td>Drip irrigation facility along with repairing facilities needed and training to be conducted about maintenance of drip system</td><td>Drip irrigation awareness was created through Sankal Se Siddhi programme. Godavari Enterprises products were displayed in the stall. 725 farmers were benefitted from this.
Off campus training programme conducted in paddapai benefiting 25 farmers.</td></tr>
<tr><td></td><td>Brinjal / Bhendi / Vegetable seedlings under FLD to be given at least for 50 cents</td><td>Through FLD programme Brinjal, Bhendi & Vegetable Seeds & seedlings are supplied as critical inputs to 23 farmers.</td></tr>
</table>

<table>
<tr><td></td><td>Non availability of mulching sheets in the market and steps may be taken to create awareness for mulching</td><td>Use of Mulches in Vegetable cultivation has been emphasized during training programmes. Off campus training on ICM in vegetable conducted for 25 farmers in Melakondaiyur on 11.07.2017. Contact details of mulching sheets to provide to needed farmers.</td></tr>
<tr><td>6</td><td colspan="2">Dr. H. Gopi, Professor and Head, PGRIAS, Kattupakkam</td></tr>
<tr><td></td><td>Database for buffalo farmers need to be collected and maintained for further studies and improve up on</td><td>Database for Buffalo farmers were collected from Kancheepuram district. So far 32 farmers data were collected from Walajabad, Chenglepet, Vaiyavur, Palur and Thiruporur</td></tr>
<tr><td></td><td>Workshops regarding livestock farming need to be conducted</td><td>An workshop on “Feeding strategies for better reproductive efficiency in dairy cows” was conducted on 14.09.2017 at Karunguzhi village by this Kendra and 512 farmers were benefited by this programme.</td></tr>
<tr><td></td><td>Awareness campaign to be conducted on maintenance of record keeping / clean milk and meat production</td><td>Awareness about Record keeping / clean milk and meat production was created among 709 farmers during 2 on campus and 8 off campus training programmes were conducted by Krishi Vigyan Kendra, Kattupakkam.
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No pers</th></tr>
<tr><td>8.3.17& 9.3.17 9.8.17& 10.8.17</td><td>On campus training programmes</td><td>2</td><td>8</td></tr>
<tr><td>15.6.17 20.7.17 4.8.17 12.8.17 21.9.17 22.9.17 27.9.17</td><td>Off campus training programmes</td><td>8</td><td>24</td></tr>
<tr><td>2016-17</td><td>Farm Field school on “Clean Milk Production”</td><td>1</td><td>2</td></tr>
</table></td></tr>
<tr><td></td><td>Popularization of TANUVAS equipments and EVM through OFT & FLD is required</td><td>• Popularization of TANUVAS equipments is done during training programmes among rural farmers. A separate unit is being maintained at KVK campus to showcase the TANUVAS equipments to the farmers.

• During 2017-18, an FLD on EVM to control enteritis in dairy cows has been sanctioned by ICAR and the same is being implemented in the field at a selected village of Nenmeli near Chengalpet. Twenty farmers were selected for the trial and awareness and demo done to the farmers on 30.10.2017.
• An OFT on “Assessment of Masti Guard efficacy in clean milk production” is under trial at Nandivaram village of Kattankulathur block 10 farmers with 3 dairy cows were selected for the trial. Inputs such as Mastiguard,</td></tr>
</table>

<table>
<tr><td></td><td></td><td>TANUCHEK kit and disinfectants were distributed to the beneficiaries.</td></tr>
<tr><td></td><td>Awareness on Animal health during summer and winter to be carried out</td><td>
Awareness on Management of livestock and Poultry during summer and winter seasons are being stressed during on-campus and off campus training programmes.
<table>
<tr><td>Name of programme</td><td>No of programme</td><td>No of persons</td></tr>
<tr><td>Oncampus training</td><td>10</td><td>464</td></tr>
<tr><td>Offcampus training</td><td>8</td><td>245</td></tr>
<tr><td>Exhibition</td><td>4</td><td>1401</td></tr>
<tr><td>Exposure visit</td><td>2</td><td>60</td></tr>
<tr><td>Other Extension activities</td><td>5</td><td>742</td></tr>
</table>
During May 2017 “Summer management in livestock farming” pamphlets were distributed to the farmers visiting Krishi Vigyan Kendra and ATIC and Vanavil weekly bazaar, Kattupakkam.
</td></tr>
<tr><td>7</td><td colspan="2">Dr.C.Gopal, Principal Scientist, CIBA, Chennai -28</td></tr>
<tr><td></td><td>Fish culture technologies to be popularized among farmers</td><td>
To popularize fisheries technologies among fish farmers and fisher-folks, the following Frontline demonstration (FLD) programmes has been proposed by KVK, Kattupakkam for 2017-18
<table>
<tr><th>Name of programme</th><th>No of programme</th><th>No of person</th><th>Pond size (Ha)</th><th>No of fingerlings</th></tr>
<tr><td>Demonstration of Pangasius catfish culture for short seasonal farm ponds</td><td>1</td><td>7</td><td>0.7</td><td>10,500</td></tr>
<tr><td>Name of programme</td><td>No of programme</td><td>No of person</td><td>No of village</td><td>No of trials</td></tr>
<tr><td>Demonstration of Masi dry fish preparation through low cost smoking kiln</td><td>1</td><td>20</td><td>2</td><td>2</td></tr>
</table>
</td></tr>
</table>

<table>
<tr>
<td></td>
<td>Importance to be given for culturing of profitable fish varieties</td>
<td>The importance to the culturing of profitable fish varieties for fish farmers, rural youths and entrepreneurs were emphasized during the programmes like awareness programme, on-campus, off-campus and other extension programmes by KVK, Kattupakkam as given below.
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>10.02.17</td><td>Exposure visit at TNAU, Coimbatore</td><td>1</td><td>25</td></tr>
<tr><td>10.02.17,24.08.17
14.09.17</td><td>Exhibition</td><td>3</td><td>1249</td></tr>
<tr><td>24.08.17</td><td>Awareness programme</td><td>1</td><td>712</td></tr>
<tr><td>22.02.17 -23.02.17
22.03.17-23.03.17
20.04.17,23.05.17
4.05.17,22.06.17
20.07.17,21.07.17
21.08.17,20.09.17
to
21.09.17,25.10.17</td><td>On-campus training</td><td>9</td><td>181</td></tr>
<tr><td>24.02.17,19.05.17
01.08.17,04.08.17
12.08.17,22.09.17</td><td>Off-campus training</td><td>6</td><td>151</td></tr>
<tr><td>October 2017</td><td>Frontline Demonstration</td><td>2</td><td>27</td></tr>
<tr><td>02.03.17,21.03.17
27.03.17,19.07.17
22.09.17</td><td>Guest lecture</td><td>5</td><td>174</td></tr>
<tr><td>13.04.17,08.06.17

24.07.17</td><td>Radio programme</td><td>3</td><td>Broadc
ed</td></tr>
<tr><td>20.04.17, 23.05.17
to
24.05.17
22.06.17
20.07.17
to
21.07.17
21.08.17
20.09.17
to 21.09.17</td><td>Other extension programme</td><td>8</td><td>173</td></tr>
<tr><td></td><td>Total</td><td>37</td><td>2683</td></tr>
</table>
</td>
</tr>
<tr>
<td></td>
<td>Popularization of shrimp culture to be</td>
<td>For popularization of shrimp culture among farmers the programmes like exhibition, guest lecture, training and</td>
</tr>
</table>

<table>
<tr><td></td><td>carried out</td><td>demonstration programme have been conducted.
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>24.08.2017
14.09.2017</td><td>Exhibition at Singaperumalkoil and Karunguli</td><td>2</td><td>1224</td></tr>
<tr><td>20.04.2017
22.06.2017</td><td>On-campus training</td><td>2</td><td>15</td></tr>
<tr><td>24.02.2017
19.05.2017</td><td>Off-campus training</td><td>2</td><td>67</td></tr>
<tr><td>27.03.2017</td><td>Guest lecture</td><td>1</td><td>31</td></tr>
<tr><td></td><td>Total</td><td>7</td><td>1337</td></tr>
</table></td></tr>
<tr><td></td><td>Cultivable brackishwater fish species of Sea bass, Mullet, Milk fish and Pearl spot to be popularized among farmers</td><td>As popularization of cultivable brackishwater fish varieties among farmers the following programme were done.
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>20.04.17
23.05.17 &
24.05.17
22.06.17
25.10.17</td><td>On-campus training</td><td>4</td><td>35</td></tr>
<tr><td>24.02.17
19.05.17</td><td>Off-campus training</td><td>2</td><td>67</td></tr>
<tr><td></td><td>Total</td><td>6</td><td>102</td></tr>
</table></td></tr>
<tr><td>8</td><td colspan="2">Tmt.G.Gomathi, Horticulture Officer, Padappai, Kancheepuram District</td></tr>
<tr><td></td><td>Wilt in Watermelon and banana disease management technology to be popularized</td><td>• Watermelon and Banana disease management technologies by the use of bioagents were popularized during crop protection training programmes and field visits.
•
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>22.2.17</td><td>Off campus training programme at Pullikundram</td><td>1</td><td>28</td></tr>
<tr><td>3.3.17
17.8.17</td><td>On campus training programme</td><td>2</td><td>42</td></tr>
<tr><td></td><td>Total</td><td>3</td><td>70</td></tr>
</table>
• Pamphlet on Watermelon disease management (120 nos.)</td></tr>
</table>

<table>
<tr><td></td><td></td><td>was distributed to farmers during training programmes, mass contact programmes and during field visits.</td></tr>
<tr><td></td><td>Popularization on protected cultivation technologies in horticultural crops</td><td>Protected cultivation popularized was made through on campus training programme on 03.07.2017 in which 5 farmers participated. Field visits made in Pichivakam, Karisangal, Atavattam villages.</td></tr>
<tr><td></td><td>Shade net Nursery technology to be popularized</td><td>ATMA farmers from Sriperumbudur (58 farmers) and Paddappai (40 farmers) blocks were exposed to shade net nursery technology during their Exposure visit on Improved technology in Horticulture crops.</td></tr>
<tr><td></td><td>Technology to control Budworm infestation in Jasmine is required</td><td>• Front line demonstration conducted in 10 farmers' field in Pichivakkam, Coul bazaar and Karisangal villages on Budworm management and ICM practices in Jasmine.
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>2.3.17</td><td>Demonstration for bud worm management in Karisangal</td><td>1</td><td>20</td></tr>
<tr><td>3.3.17
17.8.17</td><td>On campus training programme</td><td>2</td><td>42</td></tr>
<tr><td></td><td>Total</td><td>3</td><td>62</td></tr>
</table>
• Pamphlet on Pest management (150 nos.) was distributed to farmers during training programmes, mass contact programme and during field visits.
• Diagnostic field visits were organised and recommendations given for installation of light trap, pheromone trap with heli lure, soil application of chlorpyriphos 1ml/litre of water and spray of profenophos 1ml/litre of water alternated with Thiochlorprid 2ml/litre of water once in 15 days.
• No. of field visits: 12
• No. of villages visited : Coul bazaar, Keelpadappai, Karisangal, Pichivakam</td></tr>
<tr><td></td><td>Improved technology required for Jasmine flowering during off season</td><td>Nitrobenzene spray @ 2.5 ml / litre along with Tricontanol 2 ml / litre once in 15 days during November – April followed by pruning during July records high flower bearing shoots. INM practices were explained during field visits & training programme.</td></tr>
<tr><td></td><td>Training on mulching is required</td><td>
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>03.07.17</td><td>Commercial flower cultivation</td><td>1</td><td>15</td></tr>
<tr><td>12.07.17</td><td>ICM in Vegetable cultivation</td><td>1</td><td>25</td></tr>
<tr><td></td><td>Total</td><td>2</td><td>40</td></tr>
</table>
Guest lecture on latest technologies in Horticulture for 60</td></tr>
</table>

<table>
<tr><td></td><td></td><td>participants were explained about the importance of mulching in Horticultural crops. 98 ATMA farmers were benefited during training programme.</td></tr>
<tr><td>9</td><td colspan="2">Tmt. Banumathi, Child Development Project Officer, Kattankulathur</td></tr>
<tr><td></td><td>Kitchen garden to be popularized among Anganwadi centers</td><td>KVK supplied vegetable and greens seeds to the following Anganwadi centers and developed Nutrition garden.
Ninnaikalthur,Peramanur.Govindapuram
Senkundram. Tirukachur, Melrasapuram,Karuneelam, Chettipuniyam, Kondamangalam, Villiampakkam</td></tr>
<tr><td></td><td>Nutrition Education for Anganwadi workers to be given</td><td>• Nutrition Education was imparted for the benefit of Anganwadi workers
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>27.02.17</td><td rowspan="4">Nutrition gardening</td><td rowspan="4">4</td><td>18</td></tr>
<tr><td>09.03.17</td><td>21</td></tr>
<tr><td>19.05.17</td><td>36</td></tr>
<tr><td>09.10.17</td><td>173</td></tr>
<tr><td></td><td>Total</td><td>4</td><td>248</td></tr>
</table></td></tr>
<tr><td></td><td>Self employment generation activities have to be taught to the needy women</td><td>• Self Employment courses were conducted for women through on campus and off campus trainings. Thirteen training programmes were conducted during February 2017 to October 2017 on value added Millets, Milk, Meat, Vegetable, Fruits, Herbal products and Masala products for the benefit of 374 members.
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of prog.</th><th>No of persons</th></tr>
<tr><td>22.2.17
23.02.17
12.04.17
25.07.17
23.08.17</td><td>Value added Millets products</td><td>4</td><td>108</td></tr>
<tr><td>28.3.17</td><td>Value added Meat products</td><td>2</td><td>99</td></tr>
<tr><td>22.03.17</td><td>Value added Herbal products</td><td>1</td><td>16</td></tr>
<tr><td>06.04.17</td><td>Value added Mushroom products</td><td>4</td><td>103</td></tr>
<tr><td>30.05.17
31.05.17</td><td>Value added Fruit products</td><td>1</td><td>14</td></tr>
<tr><td>29.06.17</td><td>Masala powders</td><td>1</td><td>12</td></tr>
<tr><td>20.07.17
08.08.17</td><td>Value added Milk products</td><td>2</td><td>22</td></tr>
<tr><td></td><td>Total</td><td>15</td><td>374</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td>Long duration vocational trainings to be organized</td><td>• Every year KVK is conducting vocational training programme during the month of April for the benefit of women and school children
• Last year, vocational training on Toys making and Handicrafts was conducted during 24.4.2017 to 28.4.2017
Total No. of participants: 20</td></tr>
<tr><td>10</td><td colspan="2">Tmt. Kaligambal, Agriculture Officer, Department of Agriculture, Panjupettai</td></tr>
<tr><td></td><td>Availability of PPFM spray through KVK for drought mitigation in paddy</td><td>• Use of PPFM spray was explained during training programmes
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of person</th></tr>
<tr><td>7.3.17
15.9.17
20.9.17
22.9.17</td><td>ATMA training programme at Thiruneermalai, Pillaipakkam, Ottivakkam and Arungal</td><td>4</td><td>158</td></tr>
<tr><td></td><td>Total</td><td>4</td><td>158</td></tr>
</table></td></tr>
<tr><td></td><td>Popularization of organic farming is required</td><td>• Organic farming technologies were disseminated during training programmes, field visits and method demonstrations
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No pers</th></tr>
<tr><td>22.2.17</td><td>Off campus training at Angamampattu on groundnut cultivation</td><td>1</td><td>2</td></tr>
<tr><td>2.3.17</td><td>Vermicomposting guest lecture at Karisangal</td><td>1</td><td>2</td></tr>
<tr><td>6.3.17</td><td>Lecture on Organic methods in pest and disease management during Roof gardening training</td><td>1</td><td>3</td></tr>
<tr><td>9.3.17</td><td>Women’s day celebration at Nennakatur</td><td>1</td><td>4</td></tr>
<tr><td>21.3.17</td><td>Lecture on Organic pest and disease management at Keelpadappai</td><td>1</td><td>2</td></tr>
<tr><td>17.8.17</td><td>On campus training on Natural enemies of crop pests and its multiplication</td><td>1</td><td>1</td></tr>
<tr><td>12.09.17
22.9.17</td><td>Zero budget farming lecture at Padappai and Arungal</td><td>2</td><td>7</td></tr>
<tr><td>18.9.17</td><td>Lecture delivered in Annual meeting of Kanchi women sangamam mutuals to farm women</td><td>1</td><td>22</td></tr>
<tr><td>6.10.17</td><td>ATMA farmers from</td><td>1</td><td>5</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td>Sriperumbadur block exposure visit</td><td></td><td></td></tr>
<tr><td>17.10.17</td><td>On campus training on Organic manure production</td><td>1</td><td>23</td></tr>
<tr><td></td><td>Total</td><td>10</td><td>540</td></tr>
</table>

Radio talk on Biological methods in Seed treatment was recorded by SRM community radio on 22.6.2017 and broadcasted for the farming community.
Pamphlets on Organic manure production (200 nos) were distributed to the farmers during training programmes.
Display of Organic products and biopesticides exhibited in stalls during Sankalp Se Siddhi on 24.8.2017, Mass contact programmes were organized on 12.7.2017 and 13.9.2017 at Amirthapallam & Singaperumalkovil benefitting 1507 farmers.

</td></tr>
<tr><td>11</td><td colspan="2">Dr.R.Manimaran, Assistant Professor, KVK,Tirur, Thiruvallur District</td></tr>
<tr><td></td><td>Co-51 Paddy variety can be popularized and need to be made available for farmers</td><td>
<table>
<tr><td>Date</td><td>Name of programme</td><td>No of programme</td><td>No of persons</td></tr>
<tr><td>10.10.17</td><td>Training given on package of practices for cultivation CO 51 variety</td><td>1</td><td>15</td></tr>
</table>
Co-51 paddy variety was provided to the farmers in the year 2016-2017, and popularized through FLD project in the cluster villages.
</td></tr>
<tr><td></td><td>Newly released TNAU varieties should be popularized among farmers</td><td>
<table>
<tr><td>Date</td><td>Name of programme</td><td>No of programme</td><td>No of persons</td></tr>
<tr><td>07.08.17</td><td>Newly released paddy Co-52 variety seeds popolularised through KVK FLD</td><td>2</td><td>30</td></tr>
</table>

Newly released TNAU paddy variety Co-52 was supplied to the farmers in the 2017-2018 through Front line demonstrations project, further the farmers are encouraged for seed production for its wider coverage, around the district
And also others seeds such as VPN 3 Green gram, ML 365 Ragi, Bottle groud Co-1 varieties supplied to the farmers.
Bhendi Co-4 hybrid seeds are popularized through FFS programme in Nathanallur village with 25 participants.
The following TNAU varieties are being popularized through OFT, FLD and cluster FLDs (Pulses and Oil seeds) programmes.
Paddy - Co-52, Green gram – VBN -3, Co -8
Black gram – VBN -5, VBN -6, Ragi – Co-15, Barnyard millet – Co(Kv) -2, Fox tail millet – Co(Te) 7, Bottle gourd – PLR -1
Grafted Brinjal

</td></tr>
<tr><td></td><td>Farm mechanization to be popularized</td><td>
<table>
<tr><td>Date</td><td>Name of programme</td><td>No of programme</td><td>No of persons</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>30.8.17</td><td>Guest lecture and demonstration on the usage of agricultural implements.</td><td>1</td><td>32</td></tr>
<tr><td></td><td>Total</td><td>1</td><td>32</td></tr>
</table>

Demonstration was made to popularize the Farm machineries specially, drum seeder, battery operated power weeder and bush cutter during off campus training programme and on campus training programmes.
Through Revolving fund the following Farm Implements were distributed to the farmers
Paddy Drum Seeder - 28
Cono weeder - 17
Wonder Rat Trap - 17

</td></tr>
<tr><td>12</td><td colspan="2">Dr.Sundarajan, Deputy Director, Animal Husbandry Department, Kancheepuram</td></tr>
<tr><td></td><td>Marketing facilities for native chicken has to be created among poultry farmers</td><td>

Poultry progressive farmers of Krishi Vigyan Kendra, Kattupakkam have been provided marketing facilities for native chicken through Vanavil weekly bazaar.

</td></tr>
<tr><td></td><td>Popularize small scale dairy farming among farmers</td><td>

Small scale dairy farming is popularized among rural farmers through on campus and off campus and awareness training programmes.
Farm advisories are provided to small scale dairy farmers among these farmers.
6 dairy projects have been provided to the needy farmers to start small scale dairy farms (with bank assistance).

</td></tr>
<tr><td></td><td>Awareness on fodder cultivation in Kancheepuram district to be created</td><td>
<table>
<tr><td>Date</td><td>Name of programme</td><td>No of programme</td><td>No of persons</td></tr>
<tr><td>10.10.17</td><td>Training given on package of practices for cultivation of CO 5 Fodder variety</td><td>1</td><td>15</td></tr>
</table>

Awareness on fodder cultivation is created among Kancheepuram farmers during dairy training programme. So far 10 dairy training programme have been conducted by this Kendra and awareness on fodder cultivation was insisted for livestock farming activities.
Public Private Partnership mode is functioning in KVK with farmers who produced fodder crops like Cumbu Napier Hybrid grass Co-4 and Co- 5, Desmanthus, Fodder sorghum
Co-3, Co-4 and Co-5 fodder slips, Desmanthus, Fodder sorghum seeds are produced and sold out from Revolving fund activities

</td></tr>
<tr><td></td><td>SMS alerts to farmers during FMD vaccination programmes can be done</td><td>

During FMD vaccination programme, awareness among farmers were created through training programmes and farm advisory services were provided to the livestock farmers visiting KVK, Kattupakkam. FMD alertness to the farmers were provided through SMS on 30.10.2017.

</td></tr>
<tr><td></td><td>Creating awareness on buffalo farming in Kancheepuram district</td><td>

A pamphlet on Buffalo farming were distributed to around 150 farmers visiting KVK,Kattupakkam
A popular article on Buffalo farming was published in

</td></tr>
</table>

<table>
<tr><td></td><td></td><td>Tamil magazine “Pachhai Bhoomi” during the month of May’2017
• Farm advisory services were provided to 389 farmers of Kancheepuram district</td></tr>
<tr><td>13</td><td colspan="2">Dr. C.V.Sairam, Principal Scientist, ICAR – ATARI – Zone-VIII, Bangalore</td></tr>
<tr><td></td><td>Large scale adoption of new technologies has to be done among farmers</td><td>• During training programme and awareness programmes, large scale adoption of new technologies among farmers is motivated
• Large scale adoption has been made for the cultivation of newly released Co-52 paddy variety taken up in Kancheepuram district in the year 2017-2018. Totally 30 demonstration conducted on paddy cultivation and 15 no of demonstration especially conducted for seed production for large scale adoption.
• Impact study was made on Training programme
• For implementing large scale adoption of new technologies in fisheries, the FLD programme 2017-18 pertaining to fish culture in short seasonal farm ponds and value addition of fishery product of Masi dry fish under low cost method has initiated.
<table>
<tr><th>Name of programme</th><th>No of programme</th><th>No o perso</th></tr>
<tr><td>Demonstration of Pangasius catfish culture for short seasonal farm ponds</td><td>1</td><td>7</td></tr>
<tr><td>Demonstration of Masi dry fish preparation through low cost smoking kiln</td><td>1</td><td>20</td></tr>
<tr><td>Total</td><td>2</td><td>27</td></tr>
</table>
• Training programme on Biogas technology was conducted at KVK, Kattupakkam on 10.8.2017. Dr. Mahendiran, Assistant Professor, Bio energy department, TNAU, Coimbatore delivered lecture on techniques in Biogas productions.
• Millets Ready mix preparation Technologies was introduced in KVK, Kancheepuram. Trainings and demonstrations were conducted to popularize Millets products. Seventeen members adopted the technology and started new enterprise on Millets products.
• Trainings and demonstrations were conducted to popularize livestock farming. Thirty two new livestock farms have been found to be established till October 2017.
Dairy farms – 5 Goat farm – 3 Poultry Farm – 24</td></tr>
<tr><td></td><td>Impact study on Training programmes to be carried out</td><td>• Feedback collected for each livestock training programme to study the impact of training programmes. One case study and three success stories have been submitted to ATARI during current year. It was found that 32 new livestock farms have been established during this year (2017-18).
• IPM kits for crops like pheromone traps and lures 155 nos. benefitting 32 farmers are sold under Revolving fund activities and pest incidents and economics in cost of</td></tr>
</table>

<table>
<tr>
<td></td>
<td></td>
<td>
cultivation data collected from the farmers.
• Mr. Venkatesan, Chennai has apiculture unit in his farm.
• Impact study on Home Science discipline was carried out in all training programme using questionnaire. Based on the questions, reasons for not starting the programme or new enterprise started were analyzed for further study.
<table>
<tr><td>Name of the Enterprise</td><td>Name of the Entrepreneur</td><td>Quantity Produc</td></tr>
<tr><td>Masala powders</td><td>Tmt.Meena Kalaiselvi</td><td>200kg/month</td></tr>
<tr><td>Millets products</td><td>Tmt. Menaka</td><td>350kg/month</td></tr>
<tr><td>Milk Products</td><td>Th.John David</td><td>150 kg/month</td></tr>
</table>
• As impact analysis in fisheries discipline establishing new fish farms and improvement of existing fish farm activity was done.
<table>
<tr><td>Date</td><td>Particulars</td><td>No. of person</td><td>Area (Ha)</td></tr>
<tr><td>Feb. to Sept.2017</td><td>New fish farm established</td><td>5</td><td>0.53</td></tr>
<tr><td>Date</td><td>Particulars</td><td>No of person</td><td>Status</td></tr>
<tr><td>March to Sept.2017</td><td>Develop ment of existing fish farm activity</td><td>5</td><td>Adopted composite fish culture technology an Increased fish stocking densi</td></tr>
</table>
</td>
</tr>
<tr>
<td></td>
<td>Popularize terrace garden/Semi urban farming in Kancheepuram district</td>
<td>On campus training on Roof top vegetable gardening was conducted on 05.09.2017 - 80 farmers participated</td>
</tr>
<tr>
<td></td>
<td>Use of resource farmers during training programmes</td>
<td>
For all training programmes, resource farmers are insisted to share their, experience with the training participants to motivate them to start profitable new farms.
Dairy resource farmer – Th. Paramaguru, Palur
Goat resource farmer – Th.M.P.Karnan, Kolapakkam
Poultry resource farmer – Th.Pandian, Thiruvadisoolam
• Azolla cultivation – Mr.Rathinaraja singham delivered lecture on use of azolla as poultry feed to the farmers on 10.4.2017.
• Apiculture – Mr. Vasanth kumar delivered lecture during World Honey Bee day programme on honey extraction procedures on 19.8.2017 to 75 farmers.
• IPM practices – Mrs. Uma, Angamampattu delivered the importance of border crops and use of traps in training organized in Groundnut field.
• Freshwater fish culture - Th. R.Ravi, Thalampedu
• Fish Value added product - Tmt. Kalpana, ChemmancheriKuppam
• Ornamental fish culture – Th. Aravind, Perungalathur
• Milk Products - Mr.John David, Chennai
• Millets Products - Mrs.Saradha, Chennai
</td>
</tr>
</table>

<table>
<tr><td></td><td></td><td>• Masala powders - Mrs.Meena Kalaiselvi, Adampakkam
• Soft Toys making – Mrs. Kanchana, Kavanur</td></tr>
<tr><td></td><td>Scientific Advisory meeting to be conducted before December to plan the action for the subsequent year.</td><td>20th SAC is scheduled to be conducted on 06.11.2017.</td></tr>
<tr><td>14</td><td colspan="2">Director of Extension Education, TANUVAS, Channai - 51</td></tr>
<tr><td></td><td>Impact study on Training programmes to be carried out</td><td>An impact analysis in livestock discipline was carried out and found that 32 new livestock farms have been established.
• Dairy – 5 Nos.
• Goat farm – 5 Nos.
• Poultry farm – 22 Nos.
• Impact study was made on Training programme conducted by KVK during periodical intervals of financial year
• Mr.Vetrivel, Kancheepuram district uses pheromone traps to monitor crop pest in vegetable crops.
• As impact analysis in fisheries discipline establishing new fish farms and improvmemt of existing fish farm activity was done.</td></tr>
<tr><td></td><td>Conduct more no. of awareness programmes on crop and livestock Insurance</td><td>
<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of persons</th></tr>
<tr><td>24.8.17</td><td>Awareness creation was made on crop insurance during conduct of Sankalp Se Siddhi programme</td><td>1</td><td>712</td></tr>
</table>
• Conducted 3 Awareness programmes at Karunguzhi, Karunilam, and S.P.Koil on 14.09.17, 20.07.17and 24.08.17 respectively, to create awareness on livestock insurance schemes implemented by Government Departments. .
</td></tr>
<tr><td></td><td>Popularize TANUVAS technologies through FLD and OFT</td><td>During 2017-18, TANUVAS technologies such as
• Masti guard – 10 Nos.
• TANUCHEK SCC kit – 10 Nos.
• Mineralised salt licks – 200 Nos.
• Livestock concentrate feed – 100 kg
• Poultry chicks – 700 Nos.
• EVM to control enteritis – Herbal ingredients
were distributed to the OFT and FLD beneficiaries to popularize them among rural farmers of Kancheepuram district.</td></tr>
</table>

<table>
<tr><td></td><td>Popularize Agricultural machinery among farmers through Exhibition / Seminar</td><td>

Display of Agricultural implements was exhibited during Sankalp Se Siddhi programme conducted on 24.8.2017 at Singaperumalkovil benefitting 712 farmers.
Efforts were taken to popularize the Agricultural machineries especially drum seeder, sprayers and modern dry and wetland weeders through the exhibition conducted during Sankalp Si Siddhi programme, TNLD programme. And Mahila Kisan Diwas.
For popularization of agricultural machinery among farmers the following activities were carried out.

<table>
<tr><th>Date</th><th>Name of programme</th><th>No of programme</th><th>No of person</th></tr>
<tr><td>24.08.17
14.09.17
15.10.17</td><td>Exhibition</td><td>3</td><td>1263</td></tr>
</table>
</td></tr>
<tr><td></td><td>Maintenance of OFT and FLD log book has to be done by every scientist</td><td>Regularly maintaining OFT and FLD log book registers and updated</td></tr>
<tr><td>15</td><td colspan="2">Vice-Chancellor, TANUVAS,Chennai -51</td></tr>
<tr><td></td><td>Distribute inputs to farmers through Revolving fund</td><td>Regularly distributing the inputs such as Vermi composites and Vermiwash, portray seedlings, panchakavya, Azolla, ornamental fish fingerlings Home care products are distributed though revolving fund.
<table>
<tr><th>Name of the inputs</th><th>No of the inputs</th><th>No of persons</th></tr>
<tr><td>Protray seedlings</td><td>7675</td><td>49</td></tr>
<tr><td>Vermicompost</td><td>1183 Kg</td><td>42</td></tr>
<tr><td>Fodder slips</td><td>1,53,250</td><td>68</td></tr>
<tr><td>Ornamental fishes</td><td>837</td><td>46</td></tr>
<tr><td>Azolla</td><td>121 kgs</td><td>108</td></tr>
<tr><td>Panchakavya</td><td>320 litres</td><td>51</td></tr>
<tr><td>Pheromone traps, lures</td><td>155</td><td>32</td></tr>
<tr><td>Poultry Chicks</td><td>1037 Nos.</td><td>22</td></tr>
<tr><td>Eggs</td><td>659 Nos.</td><td>39</td></tr>
<tr><td>Nutrimix</td><td>68.5</td><td>133</td></tr>
<tr><td>Millets flour</td><td>29.5</td><td>59</td></tr>
<tr><td>Herbal Products</td><td>3</td><td>16</td></tr>
<tr><td>Quail egg pickle</td><td>1.5</td><td>8</td></tr>
<tr><td>Vegetable seeds</td><td>1488(packets)</td><td>185</td></tr>
<tr><td>Medicinal plants</td><td>284</td><td>83</td></tr>
<tr><td>Other millets products</td><td>1</td><td>3</td></tr>
<tr><td>Paneer Pressing Device</td><td>12</td><td>12</td></tr>
<tr><td>Farm Implements</td><td>Drum seeder-38
Cono weeder-17
Rat traps-17</td><td>72</td></tr>
</table>
</td></tr>
<tr><td></td><td>University technologies to be</td><td>TamilNadu Veterinary and Animal Sciences University</td></tr>
</table>

<table>
<tr>
<td></td>
<td>popularized</td>
<td>(TANUVAS) technologies such as

Masti guard
TANUCHEK SCC kit
Mineralised salt licks
Oral pellet vaccine
Mineral Mixture
Livestock concentrate feed
Poultry chicks
New livestock varieties
TANUVAS livestock equipments
Ethno Veterinary Methods to control specific livestock diseases

All university technologies are popularized among farmers of Kancheepuram district through training programmes, Exhibition / Seminar / workshops and other extension activities (TV & Radio programme)
Newer University technologies such as elite paddy variety, Vegetable seeds and crops protection technologies have been popularized through OFT, FLD, Mass conduct programmes and training programmes.
Tamil Nadu Fisheries University (TNFU) technologies are being implemented for popularization of fisheries technologies among fish farmers and fisher-folks in two FLD programmes sanctioned for 2017-18

<table>
<tr><th>Name of programme</th><th>No of programme</th><th>No of person</th></tr>
<tr><td>Demonstration of Pangasius catfish culture for short seasonal farm ponds</td><td>1</td><td>7</td></tr>
<tr><td>Demonstration of Masi dry fish preparation through low cost smoking kiln</td><td>1</td><td>20</td></tr>
<tr><td>Total</td><td>2</td><td>27</td></tr>
</table>
</td>
</tr>
<tr>
<td></td>
<td>Action taken on shrinkage of Agricultural land to district administration</td>
<td>

Recommendation given to appropriate department about realization of maximum yield / output from this area.
Training given to rural youth on Integrated farming system, farm enterprises like Mushroom cultivation, Apiculture, Vermi compost unit so as to generate income throughout the year from farm.
Awareness programmes conducted on latest technologies in farm mechanization so has to create awareness.

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</table>

<table>
<tr>
<td></td>
<td>Impact analysis of SHGS / Entrepreneurship has to be done</td>
<td>

Impact study was conducted on training programme conducted by KVK during periodical intervals of the financial years.
As impact analysis in fisheries discipline the establishing new fish farms and development of existing fish farm activity was done.

<table>
<tr><th>Particulars</th><th>No of person</th><th>Area (Ha)</th></tr>
<tr><td>New fish farm established</td><td>5</td><td>0.53</td></tr>
<tr><th>Particulars</th><th>No of person</th><th>Status</th></tr>
<tr><td>Development of existing fish farm activity</td><td>5</td><td>Adopted to composite fish culture technology and Increased fish stocking density</td></tr>
</table>
</td>
</tr>
<tr>
<td></td>
<td>Seed hub project to be successfully done</td>
<td>Seed processing unit layout as vetted out by IIPR, Kanpur is under progress. Tender has been finalized and construction will be started in KVK farm. Supply order for Green gram, Black gram and Redgram seeds was placed in TNAU, Coimbatore and JDA, Kancheepuram and Farmers selection is under progress for Rabi season in Sriperumbadur, Walajabad, Uthiramerur, Chithamur blocks in Kancheepuram district.</td>
</tr>
<tr>
<td></td>
<td>Social reforms activities through pamphlets / awareness programmes value addition trainings etc. can be initiated</td>
<td>

Popularization of TANUVAS technologies to improve the livelihood status of the poor and Disabled persons through OFT / FLD / Pamphlet / awareness programmes are being regularly carried out by this Kendra.
Parthenium eradication programme was conducted from 16.8.17 to 22.8.2017. 118 farmers, farmwomen and rural youth participated.
World Honey Bee Day programme was conducted on 19.8.17 with 75 participants and 4 extension functionaries from line department. Pamphlet 100 nos. was distributed related to honey bee rearing techniques. Radio talk on world honey bee broadcasted. The Hindu (Tamil) edition published about the programme on 20.8.2017.
Swachta He Sewa programme organized from 15th September to 2nd October, 2017 about cleanliness
Social reforms activities like waste disposal and management and clean cultivation were carried out on the occasion of Sankalp Si Siddhi programme
Through swachhta ki sewa programme from September 15 to October 2 various activities were carried out in the villages. Including cleaning garbages, toilets and conducted awareness programme for importance of toilets in the villages.
All farmers & SHG who visited KVK for advisory service is advised to use mobile app for training details and other informations.

</td>
</tr>
</table>

	Popularize and strengthen TANUVAS Mobile App among rural / urban farmers	The TANUVAS Mobile App such as Training Calendar and Feed calculator are being conversed to beneficiaries like agricultural, animal husbandry and fish farmers including fisher-folks & agricultural entrepreneurs for applying in their mobile phone through every mandatory and other extension programmes conducted by the KVK, Kattupakkam regularly. Besides AMMA Ambulance – 1962 services has been explained to the farmers during the KVK training programmes.
	More no. of integrated farming system (IFS) models to be created at farmers level using external funds	During 2017-18, around eight IFS models at farmers field were created. (Mudaiyur, Venbakkam, Chinnamaangulam, Silavattam Puthinathottam, Sogandi, Thalambedu and Palur)
	Marketing SMS can be recruited to popularize marketing strategies among farmers	Currently all the Scientists are guiding the farmers related to available marketing facilities, particularly Home Science SMS is guiding through Amudhasurabhi and Animal Science extension scientist by preparing Livestock Projects for establishing units.

SAC proceedings - 06.11.2017

1.	**Th.Manoharan, Progressive farmer and Farmer Representative**	
	• Farm ponds with the help of Department of Agriculture Engineering have to be done for the benefit of farmers at Pattumudaiyarkuppam	Construction of farm ponds at Pattumudaiyarkuppam through department of Agriculture Engineering has been incited.
	• Model vegetable farm / demo units have to be created at Krishi Vigyan Kendra farm for the benefit of visiting farmers	Model vegetable farm is established in KVK farm on Bhendi, Brinjal and Moringa,
	• Seeds of newer crop varieties released by research stations has to be popularized	Newer varieties in paddy Co-52 VBN-3, VBN-8 Groundnut and fodder cowpea are being popularized by FLDs programme. Tharani 13 variety Groundnut VRI -8 introduced in project trails in Kancheepuram District.
	• Awareness and training programme on herbal plants and its cultivation have to be conducted	Awareness and training programme on herbal plants and its cultivation is being conducted.
	• Awareness on hydroponic fodder production need to be created among livestock farmers	On campus training programme being organized on hydroponic fodder production.
	• Fish culture training may be given to utilize the village ponds and farm ponds	On Campus and off campus training programmes about fish culture to utilize village & farm ponds has been scheduled 6 Nos and conducted. 5 Nos with the beneficiaries' at 121 Nos.
2.	**Th.Baskaran, Progressive farmer and Farmer Representative**	
	• Training on drip irrigation need to be organized at Krishi Vigyan Kendra frequently for facilitating farmers to adopt technology.	Training on drip irrigation is being organized at KVK.

	• De husker machines have to be installed (or) made available particularly for pulses & oilseeds.	De husker machines will be made available.
	• Agricultural implements should be made available on hiring basis	Necessary steps have been taken to make the availability of Agricultural implements on hiring basis.
3.	**Th.V.Palani, Progressive farmerand Farmer representative**	
	• More no. of organic inputs need to be made available at Krishi Vigyan Kendra for the benefit of farmers including wild boar repellent	Vermi compost, Panchakavya, Azolla produced at KVK farm and are being sold under revolving fund activities.
	• Popularize Green manure crops among farmer and seeds need to be made available	Green manure seeds distributed to the farmers under revolving fund schemes.
	• Seed hub project on pulses have to be implemented on a fast track mode for effective utilization among farmers	Green gram and Black gram seed growers are registered with KVK. So for 114 acres have been covered. In coming seasons, area will be increased.
	• Training on organic farming should be given	On campus training programme on production of organic manures conducted demonstration carried in KVK farm & farmers field on 10.04.2018 and 11.04.2018 participating by providing the technology developed by KVK Vellore, TNAU & PCI bio product.
	• Latest technology to overcome wild pig menace may be popularised	Techniques to overcome wild Pig menace in field are being popularized in paddy & Groundnut
4.	**Mrs.K.Gowri, Progressive farmerand Farmer representative (women)**	
	• Feed cost is very high. Cost may be reduced for regular customers and norms may be fixed with CFTU in this regard.	Represented the problem to Central Feed Technology Unit, Kattupakkam to reduce Livestock feed cost.
	• Training on feed cost reduction technology to be popularized	Training on feed cost reduction technologies such as Azolla production, Hydroponics and concentrate feed formulation with locally available feed etc., were provided during off campus and On campus training programmes at KVK regularly.No of Training programme 4, Beneficiaries – 95.
	• Training on poultry farming may be provided	Training on Poultry farming is provided to the trainees during On campus/ Off campus training programmes. No. of Training programme - 2, Beneficiaries – 114.
5.	**Thiru.P.J.Gunasekar, Joint Director of Agriculture**	
	• Grid soil sampling have to be done and district soil map have to be prepared	Will be done in co-ordination the state department of Agriculture.
	• Encourage farmers on Azolla production in paddy fields on	Azolla production training programme are conducted and demonstration carried out.

	large scale to enhance back yard poultry rearing	
	• Krishi Vigyan Kendra may co-ordinated for taking grid soil sampling activity in the district	GPS of soil sampling is being carried out by KVK and it conducting Agriculture department regularly.
	• Fisheries components should be included in IFS	Integrated fish culture training has conducted, also inclusion of fisheries components in Integrated farming system programmes has initiated
6.	**Thiru.Immanuel, Deputy Director of Horticulture**	
	• Scheme for Institutions are also available under NADP which can be implemented at Krishi Vigyan Kendra for the benefit of visiting farmers	Proposals will be submitted to NADP.
	• Nutrition garden / kitchen garden kits / plants /seeds which are supplied through Department of Horticulture may be utilized by Krishi Vigyan Kendra	During training progrmme farmers are instructed to get materials from department.
	• Plastic mulching technology have to be popularised in a very easy manner for the benefit of farmers	Plastic mulching technology will be popularized. Taught in training programme, Demonstration conducted at KVK.
	• Standardization of coir compost have to be done for promoting roof top garden in all places	Standardization of coir compost is in progress.
	• Awareness programme on farm waste management technique may be organized.	On Campus training on Organic manure production was conducted on 10.04.2018 & 11.04.2018. 23 participants were benefitted.
	• Training on promotion of terrace garden need to be organised	Regularly KVK is organizing such trainings. No of Programme – 2, Beneficiaries - 24
7.	**Er.Subramanian, Executive Engineer (Agricultural Engineering)**	
	• Labour saving agricultural implements may be popularized	Popularization of Agricultural implements is being carried out. Paddy Drum seeder – 16 Cono weeder - 8 Rat Trap - 12 were sold through RFS.
	• Awareness on chaff cutter usage needs to be popularized among dairy farmers	Awareness on chaff cutter usage is popularized among dairy farmers during the -- On campus training programmes.
	• Training on micro irrigation techniques may be popularised among horticulture farmers	Training on micro irrigation techniques is popularized among horticulture farmers.
	• Demonstration of harvesting machine on pulses to be conducted among farmers	Demonstration will be conducted.
	• Plant protection equipments may be popularised among farmers	Plant production equipments like sprayers and their application procedures are employed during On campus and Off campus training programme.
	• Latest post harvest processing equipments may be popularised	Latest post harvest processing equipments will be popularised
7.	**Dr.Santhakumari, Regional Joint Director (Animal Husbandry) i/c**	
	• Low cost hydrophonic fodder	Hydroponic fodder production technology was

	production technology have to be popularized among farmers to meet fodder deficit during off season.	demonstrated to the farmers on 23.02.2018 at Madurantagam to popularized this among farmers to meet out fodder deficit during of season.
	• Instruments for low cost hydrophonic fodder production need to be made available for farmers by identifying the dealers and instruments.	Hydroponic fodder production Instruments are made available to farmers through, URF, TANUVAS, Chennai – 51.
	• Kadaknath / desi poultry chicks units need to be established	Desi poultry units maintained at this Kendra for motivating the farmers to start the same at his field.
	• Extension functionaries training programme need to be conducted for VAS particularly on operating scanners and new instruments	Extension functionaries training conducted on EVM in Livestock and Poultry practices for VAS at KVK, Kattupakkam on 11.04.2018 in which94 member including VAS, Ads, DDs and RJD, ADAH Kancheepuram District participated.
	• Infertility management practices in dairy animals may be popularised among farmers though Mass Contact Programme	Infertility management in dairy animals is being popularized on regular On campus and Off campus training programmes conducted at KVK, Kattupakkam. No. of Training programme - 1, Beneficiaries – 95
	• Training programmes on Azolla production and Hydrophonics fodder production need to be conducted.	Azolla production On campus training programme conducted on 12.02.2018. 24 members participated. Demonstration was also done, on cultivation method.
9.	**Dr.N.Chandira, Regional Joint Director (Fisheries)**	
	• Model village can be developed with one progressive farmer by implementing all schemes pertaining to fisheries	Model Village Kamsalapuram has been developed along with fisheries, Animal Science, Agriculture & Home Science programme.
	• Promote grass carp culture in community ponds	Off campus / On campus training programme & FLD programme of 6 Nos. being benefitted with 127 Nos. on grass carp culture in aquatic infested waste bodies are designed.
	• Awareness on DFDA (District fish farmer development agency) schemes to bemade in training programmes.	It was emphasized & given importance about DFDA schemes in all the training awareness programmes & other programme of KVK and TANUVAS.
	• Ornamental fish culture technology to be promoted in Kancheepuram district	To promote ornamental fish culture technology the training programmes conducted 200 were pamphlets are issued.
	• Popularization of inland and brackish water farming practices to be in made district	To popularize inland & Brackish water farming OFT, FLD programmes designed. Off campus/On campus / awareness programmes aimed & being conducted.
10.	**Mrs.K.Banumathi, CDPO (Child development project officer)**	
	• More training on value addition of minor millets need to be conducted	Two On campus trainings were conducted and 26 farmers/ farm women participated.
	• Value added vegetable product preparation trainings may be conducted to the housewives in peri-urban area of	One training was conducted for the housewives.

	the district	
	• Nutrition education to Anganwadi workers could be provided	Training will be conducted in the following months.
	• Seeds and seedlings, mainly papaya may be distributed to the Anganwadi centres	Seeds and Seedlings of greens and Vegetables and Papaya Seedlings were distributed to 10 Anganwadi centers of Kattankolathur Block.
11.	**Dr.H.Gopi, Professor and Head, PGRIAS**	
	• Identified progressive livestock farmer have to be made as a livestock breeder and for maintenance of breeder farm for the benefit of farmers in the district.	Progressive Livestock farmers will be identified for maintenance of breeder farm for the benefit of Kancheepuram farmers.
	• Technical sessions have to be conducted with VAS at district level before proposing OFT / FLD programmes of Krishi Vigyan Kendra	VAS meeting conducted was on 11.04.2018 and OFT/FLD proposed based on field problems.
	• Case study / impact need to be conducted on livestock farming	Two Livestock farmers success stories were documented on 15.02.2018 by DEE, TANUVAS as an impart of Livestock training programmes at KVK, Kattupakkam.
	• Method demonstration need to be organized along with Animal Husbandry Department	Method demonstration need with be organized. Demonstration on Hydroponics was -- along Animal Husbandry Department to the farmer of Kancheepuram District on 23.02.2018 at Madurantagam under NPBB, sponsored by TNLDA, Chennai.
	• Awareness on clean milk production need to be emphasized	Awareness on clean milk production in dairy animals on emphasized to farmers visiting KVK, Kattupakkam during On campus & Off campus, OFT & FLD demonstration. A Radio talk on "Clean milk production" was delivered on 22.01.2018 at All India Radio Chennai for the benefit of dairy farmers.
12.	**Dr.C.V.Sairam, Principal Scientist, ICAR-CIBA**	
	• Krishi Vigyan Kendra convergence with CIBA have to be done for implementing latest technologies in fisheries particularly at Kovalam & Kuvathur villages	The promote latest technologies in fisheries awareness/ Off campus training programmes of 2 Nos planned.
	• Identify interested farmer in brackish water aquaculture and technologies and implement in collaboration with CIBA	Resent implementation on Shrimp culture technologies & Shrimp varieties to popularize in 2 Nos of trails schedule awareness.
	• Promotion of fish varieties such as GIFT Tilapia, Pangasius cat fish in cage culture among the farmers in the district	On campus & Off campus training programmes are conducted about cage culture to promote GIFT Tilapia & Pangasius Catfish varieties.
13.	**The Director of Extension Education, TANUVAS**	
	• Identify the problems with all	Problems were identified and included in the action plan

	line departments before planning proposals for the next year programme of KVK	2018-19. Extension functionaries tray to ATMA & NGOs problems were sought out in 3 days Training programme.
	• Log book have to be maintained by all technical staffs for all research programmes	Log book being maintained for all field visits made.
	• Success stories have to be recorded and reports may be sent to University and ATARI.	Success stories being documented. Two Success stories on Progressive Livestock farmers were documented on 15.12.2018 by DEE, TANUVAS, Chennai.
	• Adoption studies on utilization of livestock instruments like incubator, hydroponic etc., have to be done and report to University and ATARI.	Adoption studies will be conducted.
	• Government scheme details have to be printed and popularized among farmers for the better utilization	Government Livestock Scheme detail are popularized among farmers during all the On campus /Off campus training programmes conducted at KVK, Kattupakkam. No. of Training programme - 4, Beneficiaries – 95.
	• Terrace garden model have to be created at Krishi Vigyan Kendra for the benefit of visiting farmers and youth	Terrace garden of functioning at KVK farmers hostel.
	• Facilitate Agricultural Engineering interventions to the livestock farming communities	Agricultural Engineering interventions such as poultry cages for Backyard poultry farming Livestock equipments etc., are popularized among Livestock farming farming communities during training programme.
	• Impact studies on adoption of KVK promoted technologies to be conducted and reported.	Follow up of Technologies demonstrated are being done and impart on yield and economics recorded.
14.	**Dr.Y.G.Prasad, Director, ATARI**	
	• Each discipline have to produce two case studies in the relevant successful technology	Case studies will be produced.
	• One village have to be adopted for producing vermicompost using all the wastes produced in the village and a project may be prepared and submitted to ATARI for funding from ICAR	Will be adopted.
	• Demographic representation of soil samples should be collected and more than 1000 samples should be analysed.	Will be carried out.
	• Case study (1-3) on Integrated Farming System have to be conducted in the villages	Will be conducted.
	• Establishment of model unit in village have to be done for	Will be established.

	fodder production and to prepare project estimate for funding from ICAR	
	• Establish feed unit at village level for preparation of concentrated feed with locally available materials like groundnut / maize etc.,	Will be established.
	• KVK need to prepare proposals as peri-urban KVK for implementing technologies	Proposal submitted in the Action plan. Conducting on Haney bee production, Native Chicken rearing, Roof top gardening.
	• Gap analysis for home stead gardens have to be studied on using of inputs.	Home stead gardens is being supplied through revolving fund. Analysis in being carried out.
	Recommendation for administration	
	• Computer programmer have to be posted at KVK and it is a must for online reporting to ICAR	Proposal request submitted to university for recruitment of computer programmer.
	• Farm manager post is vacant for a long time, the post has to be filled immediately with B.Sc.(Agriculture) qualification on permanent /contractual basis	Proposal request submitted to university for recruitment of Farm manager .
	• Training Assistant is also vacant this may be filled immediately with B.VSc. (or) B.Sc.(Horticulture) qualification on permanent / contractual basis	Proposal request submitted to university for recruitment of Training Assistant .
15.	**The Vice-Chancellor, TANUVAS**	
	• Quantification in clean milk production by individuals and societies have to be followed and the feedback may be conveyed to the university on clean milk production technologies adopted	Feedback will be conveyed to University.
	• Case study / economic analysis / impact study / feedback need to be communicated to line departments	Will be communicated.
	• Vermi composting workshop need to be organized	Necessary step taken to organize Vermi composting workshop.
	• Animal/Farm Waste Management training need to be given to the farmers	No. of Training programme - 2, Beneficiaries – 60.
	• Usage of mineral blocks mineral mixture by the livestock farmers have to be	OFT/FLD results on wage of Mineral Mixture / Mineral blocks by the Livestock farmers will be sent to IAN & University after analysis.

	studied & feedback need to sent to nutrition department & university	
	• Soil Health card distribution should be based on demographic pattern and coverage improved by benefitting more farmers.	Soil Health Card distribution made by demographic by covering different blocks of Kancheepuram District.

10. PUBLICATIONS

Publications in journals

S. No	Authors	Year	Title	Journal
1	K.Devaki, P.Mathialagan VE.Sabarathnam, P.Kumaravel, S.M.K.Karthikeyan	2017	An Analysis of traditional Dairy farming folkways and mores of Tamilnadu State, India	International Journal of current Microbiology and Applied Sciences (Int.J.curr.MicroBol.App.Sc.)
2	P.Murugan A.Velayutham M.Md.Amanullah	2017	Effect of organic and inorganic source of nutrients on yield attributes and yield of groundnut	National conference compendium on "Revisiting agricultural extension strategies for enhancing food and nutritional security, sustainable livelihood and resilience to climate change" held at PJTSAU, Hyderabad
3	Dr.M.Vimalarani Dr.Thenmozhi Dr.Gayathri Subbiah Dr.P.R.Nisha	2017	Product development sensory quality and storage of mushroom	VelanIyarkaiValaviyal (Second Tamil Conference)
4	Dr. M.Vimalarani Dr. P.G. Thenmozhi Dr. K. Velmurugan	2017	Development and Evaluation of protein rich fruit products using spirulina powder	Proceeding of National seminar on the role of food processing in Nutrition security
5	Dr. P.G. Thenmozhi Dr. M.Vimalarani Dr.Sendhurkumaran	2017	Modified atmosphere packaging and storage of Fruits - Grapes	Proceeding of National seminar on the role of food processing in Nutrition security
6	Dr. P.G. Thenmozhi Dr. M.Vimalarani	2017	Nutritive Value and organoleptic evaluation of vegetable (Cluster beans)	Proceeding of National seminar on the role of food processing in Nutrition security
7	Dr.S.Kannappan Dr.K.Sivakumar Dr.Sivagnaam	2017	Effect of *Lactobacillus rhamnosus* cells against specific and native fish spoilage bacteria and their spoilage indices on Asian seabass fish chunks	Journal of Environmental Biology
8	Dr. P.Kumaravel Dr. K.Devaki	2017	Ethno Veterinary medicine for the control in Dairy Cattle - An On farm trial	Book of abstracts on National Conference on Improving income of farmers through Agriculture and Aquaculture through development interventions
9	Dr. K.Devaki Dr. P.Kumaravel Dr. P.R.Nisha	2017	Up gradation of local Non-descriptive Goats with Tellicherry buck	Book of abstracts on National Conference on Improving income of farmers through Agriculture and Aquaculture through development interventions
10	K.Devaki P.Mathialagan VE.Sabarathinam P.Kumaravel	2017	Validation study on different EVM used for Ranikhet decease Backyard poultry	INTFES - International conference on Invigorating transformation of farm Extension towards sustainable Development : Futuristic challenges and prospects

11	K.Devaki P.R.Nisha K.Velmurugan	2017	Impact of sheep integration in existing IFS model	INTFES - International conference on Invigorating transformation of farm Extension towards sustainable Development : Futuristic challenges and prospects

Other publications

S.No	Item	Year	Authors	Title	Publisher
1	Books	-	-	-	-
2	Book chapters / manuals	-	-	-	-
3	Training manuals	2017-18	Dr.P.R.Nisha, Dr.K.Devaki and Dr.K.Velmurugan	Advances in Livestock Production and Health Management	KVK Kattupakkam
		2017-18	Dr.P.R.Nisha, Dr.K.Devaki and Dr.K.Velmurugan	Clean Milk Production in dairy animals	KVK, Kattupakkam
		2017-18	Dr.K.Velmurugan Dr.M.Siddharth Dr. M.Vimalarani, Dr.T.Selvaraj Dr.K.Devaki Dr. Gayathri Subbiah Dr.K.Sivakumar	Newer technologies in Agriculture and allied sectors	KVK, Kattupakkam
		2017-18	Dr.K.Velmurugan and Dr.Gayathri Subbiah	Integrated Crop Management in Bhendi	KVK, Kattupakkam
4	Conference, proceeding papers, popular articles, Bulletins, Short communications	Conference paper, 2018	P.Kumaravel and K. Devaki	EVM treatment for the control of Mastitis in dairy cattle – An Onfarm trial	National Conference on "Improving income of farmers through Agriculture and aquaculture through Development Interventions
			K. Devaki , P.Kumaravel P.R.Nisha	Upgradation of local Non descriptive goats with Tellicherry Bucks	National Conference on "Improving income of farmers through Agriculture and aquaculture through Development Interventions
			K. Devaki P.Mathialagan VE.Sabarathnam and P.Kumaravel	Validation study on different EVM used for Ranikhet disease in backyard poultry	International conference on "Invogarating Transformation of farm Extension towards sustainable Development:Futuristic challenges and Prospects
			K.Devaki P.R.Nisha	Impact of Sheep integration in existing	International conference on

			K.Velmurugan	IFS model	"Invogarating Transformation of farm Extension towards sustainable Development:Futuristic challenges and Prospects
			Dr. K.Devaki & Dr.P.R.Nisha	Parasitological control in goats	Pacchai Bhoomi
			Dr. K.Devaki & Dr.P.R.Nisha	FAQ on dairy cow breeding management	Kalnadai Kadir
		2017	Dr. K.Devaki & Dr.P.R.Nisha	Japanese quail farming	Pacchai Bhoomi
		2017	Dr. K.Devaki , Dr.P.R.Nisha & K.Velmurugan	Integrated farming system	Pacchai Bhoomi
		2017	Dr. K.Devaki , Dr.P.R.Nisha & K.Velmurugan	Summer management in livestock farming	Pacchai Bhoomi
		2017	Dr. K.Devaki , Dr.P.R.Nisha & K.Velmurugan	Clean Milk Production in Dairy animals	Pacchai Bhoomi
		2017	Dr. K.Devaki , Dr.P.R.Nisha & Dr.K.Velmurugan	Traditional Egg Incubation techniques	Pacchai Bhoomi
		2017	Dr. K.Devaki and Dr.K.Velmurugan	Guinea fowl rearing methods	Pacchai Bhoomi
		2017	Dr. K.Devaki and Dr.K.Velmurugan	Scientific Goat farming	Pacchai Bhoomi
		2017	Dr. K.Devaki and Dr.K.Velmurugan	Scientific Goat farming	Pacchai Bhoomi
		2017	Dr. K.Devaki	Winter management in livestock farming	Pacchai Bhoomi
		2017	Dr. K.Devaki and Dr.K.Velmurugan	Scientific Rabbit farming – A Profitable enterprise	Pacchai Bhoomi
		2018	Dr. K.Devaki and Dr.K.Velmurugan	Parasitological control in goats	Pacchai Bhoomi
		2018	Dr. K.Devaki and Dr.K.Velmurugan	Nutritional supplements to improve milk production in dairy animals	Pacchai Bhoomi
		2017	Dr. P.Murugan, Dr.K.Velmurugan	Organic method of Paddy cultivation	PachaiBhoomi
		2017	Dr. K.Devaki. Dr. P.R.Nisha Dr. K.Velmurugan	Summer management in Livestock Farming	PachaiBhoomi
		2017	Dr. K..Sivakumar, Dr. K.Velmurugan	Murrel fish Culture	PachaiBhoomi
		2017	Dr. M.Vimalarani,Dr. Gayathri Subbiah Dr. K.Velmurugan	Healthy foods for summer season	PachaiBhoomi
		2017	Dr. M.Vimalarani.Dr. Gayathri Subbiah Dr. K.Velmurugan	Meditational property of Arai leaves	Vanigamani
		2017	Dr.P.Kumaravel, Dr.P.Murugan	Status of farmers producers	Farmer Producer Organizations in

				organizations in KancheepuramDt	Kerala and Tamil Nadu - Book
		2017	Dr. P.Murugan, Dr.K.Velmurugan	Legumionus fodder production technology	PachaiBhoomi
		2017	Dr. K.Devaki, Dr.P.R.Nisha	Clean milk production	PachaiBhoomi
		2017	Dr.P.R.Nisha	Summer Management in Livestock	PasumaiVikatan
		2017	Dr.M.Vimalarani Dr.Gayathri Subbiah Dr.K.Velmurugan	Value added palm product	Vanigamani
		2017	Dr.K.Sivakumar Dr.K.Velmurugan	Reduction of fish culture days using stunted fingerlings	PachaiBhoomi
		2017	Dr.M.Vimalarani Dr.K.Velmurugan	Medicinal properties of punarnava herb	PachaiBhoomi
		2017	Dr. Gayathri Subbiah, Dr.M.Vimala rani and Dr. K.Velmurugan	Citrus Pest Management	Pachaaibhoomi
		2017	Dr. M.Vimalarani, Dr.Gayathri Subbiah and Dr. K.Velmurugan	Value added lemon products	Vanigamani
		2017	Dr.K.Devaki, Dr.P.R.Nisha and Dr. K.Velmurugan	Tradition Egg incubation technologies	Pachaaibhoomi
		2017	Dr. M.Vimalarani, Dr.Gayathri Subbiah and Dr. K.Velmurugan	Value added products from (*Hibiscus cannabinus*)	Pachaaibhoomi
		2017	Dr. M.Vimalarani, Dr.Gayathri Subbiah and Dr. K.Velmurugan	Value addition of Pineapple	Vanigamani
		2017	Dr. M. Vimalarani Dr. Gayathri Subbiah Dr. K.Velmurugan	Value added sapota product	Vanigamani
		2017	Dr. K.Sivakumar Dr. K.Velmurugan	Selection of fish species for farming purpose	Pachaiboomi
		2017	Dr.M.Vimalarani Dr.Gayathri Subbiah Dr. K..Velmurugan	Newer Technology in mango processing	Vanigamani
		2017	Dr.K. Devaki Dr. K..Velmurugan	Guinea fowl rearing methods	PachaiBhoomi
		2017	Dr. M.Vimalarani Dr. Gayathri Subbiah Dr. K.Velmurugan	Nutrition foods for winter season	Vanigamani
		2017	Dr.Gayathri Subbiah and Dr.K.Velmurugan	Parthenium weed management	PachaiBhoomi
		2017	Dr.Gayathri Subbiah	Banana Disease	PachaiBhoomi

			and Dr.K.Velmurugan	Management	
		2017	Dr.Gayathri Subbiah and Dr.K.Velmurugan	Groundnut disease management	PachaiBhoomi
		2017	Dr.K.Devaki Dr.K.Velmurugan	Scientific Goat farming	PachaiBhoomi
		2017	Dr. M.Vimalarani Dr. K.Velmurugan	Nutrition foods for winter season	Vanigamani
		2017	Dr.K.Velmurugan and Dr.Gayathri Subbiah	World Honey Bee Day programme	PachaiBhoomi
		2017	Dr. K.Devaki	Winter Management in Livestock Farming	PasumaiVikatan
		2017	Dr. K.Devaki Dr. K.Velmurugan	Goat farming	PachaiBhoomi
		2017	Dr.M.Vimalarani	Nutritional Importance of custard Apple	Vanigamani
		2017	Dr.M.Vimalarani	Uses of ChakravarthiKeerai.	PachaiBhoomi
		2017	Dr.K.Devaki	Scientific Rabbit farming a profitable enterprise	PachaiBhoomi
		2017	Dr.K.Sivakumar Dr.K.Velmurukan	Better income generation by ornamental fish culture.	PachiBhoomi
		2018	Dr. M.Vimalarani	Medicinal properties of Pomegrouats	Vanigamani
		2018	Dr. M.Vimalarani, Dr. K.Velmurugan	Dried Vegetable preparation	Vanigamani
		2018	Dr. M.Vimalarani, Dr. K.Velmurugan	Value added Groundnut products	PachiBhoomi
		2018	Dr. M.Vimalarani, Dr. K.Velmurugan	Flavoured Paneer preparation	Vanigamani
5	Technical bulletin/ Folders	2017-18	Dr.K.Devaki and Dr.K.Velmurugan	1.Quail farming 2.Duck farming 3.EVM to control Enteritis in Dairy cows 4.Mastitis control measures 5.Nutritional supplementation to Dairy animals 6. Summer management in livestock and Poultry farming 7.Feeding practices in dairy animals 8.Alternate feeding practices in dairy	KVK, Kattupakkam

				animals 9.Infertility in dairy animals	
		2017-18	Dr.K.Sivakumar and Dr.K.Velmurugan	1. Backyard ornamental fish culture 2. Azolla culture and its methods of benefits in fish farming 3. Masi dry fish preparation 4. Composite fish culture 5. Pangasius genus catfish culture methods	KVK, Kattupakkam
		2017-18	Dr.M.Vimalarani and Dr.K.Velmurugan	1.Value added Sapota products 2.Newer Technologies in Mango processing 3.Flavoured paneer preparation 4.Importance of traditional Rice Varieties 5.Processing & value addition of Vegetables	KVK, Kattupakkam
		2017-18	Dr.Gayathri Subbiah and Dr.K.Velmurugan	1.Honey Bee rearing techniques 2. Mango IPM techniques-Calendar of opertations	KVK, Kattupakkam
		2017-18	Dr.Gayathri Subbiah and Dr.K.Velmurugan	Parthenium control measures	KVK, Kattupakkam
		2017-18	Dr.T.Selvaraj Dr.K.Velmurugan	Maize Production technologies Blackgram Production technologies World Soil Day PP&FRV Guidelines	KVK, Kattupakkam
6	Reports	-	-	-	-
7	others	-	-	-	-

Newsletter/Magazine

Name of News letter/Magazine	Frequency	No. of Copies printed for distribution
KVK News Letter	Quarterly	2000

4. 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	Duration	Organized by
Dr.K.Velmurugan Prof & Head	Annual review workshop of KVKs	04.05.2017 to 06.05.2017	ICAR – KVK, North Goa
Dr.P.Murugan, Assistant Professor (Agronomy)	Prime Minister Fasal BimaYojana	1.6.2017	District Collectorate, Kancheepuram
Dr.Gayathri Subbiah	Crop Insurance	22.09.2017	District collector office Kancheepuram
Dr. Gayathri Subbiah	Seed Hub	07.11.2017	IIPR Kanpur.
Dr.K.Devaki Asst.Professor	Ethno Veterinary practicing in Livestock and poultry	11.01.18 12.01.18 (2 Days)	Madras Veterinary College Vepery, Chennai - 7
Dr.M.Siddharth Professor	Hi-Tech Agriculture	02.02.2018 to 16.02.2018	Kerala Agricultural University, Trissur
Dr. T.Selvaraj Assistant Professor	District Action plan meeting	21.02.18 to 23.02.18	ATMA, Kodaikanal
Dr.K.Sivakumar Assistant Professor	Orientation training programme for the newly recruited Assistant Professors of TANUAVS	05.03.2018 to 15.03.2018	Madras Veterinary College Vepery, Chennai - 7
Dr.M.Vimalarani Assistant Professor	National Conference cum Workshop on "Making Indian food clean and safe	20.01.17 & 21.01.17	Madras Veterinary College Vepery, Chennai - 7
Dr.M.Vimalarani Assistant Professor	Capacity Building of KVK Home Scientists on Food Processing	14.03.17 to 16.03.17	Home Science College and research Institute, TNAU, Madurai

11. 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.)**
-	-	-	-	-

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

Introduction of alternate crops/ varieties

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

Major area coverage under alternate crops/varieties

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

Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No. of participants
Animal Science	3	196
Fisheries	1	207
Total	**4**	**403**

Animal health camps organised

Number of camps	No.of animals	No.of farmers
1	375	112
Total	**375**	**112**

Seed distribution in drought hit states

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

Large scale adoption of resource conservation technologies

Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Paddy – direct sowing by drum seeder	35	126
Total	35	126

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
	6	524	1	234	4	389	1	40	3	1282	0	0
	9	1096	0	0	3	45	2	1018	6	2054	15	1669
	2	1238	0	0	4	98	1	50	3	1631	0	0
Total	**17**	**2858**	**1**	**234**	**11**	**532**	**4**	**1108**	**12**	**4967**	**15**	**1669**

13. Awards/rewards 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
Award for Best article publication for Entrepreneurship	**Feb 2018**	**Tamil Nadu State Publishers Association**	**Dr.M.Vimalarani Individual**

Special Attainments & Achievements of Practical Importance (patents, technologies, varieties, products, concepts, methodologies etc.)				
Category	Title	Year	Individual/ Collaborative	Additional Details/Information

14. Details of sponsored projects/programmes implemented by KVK

S.No	Title of the programme / project	Sponsoring agency	Objectives	Duration	Amount (Rs)
1	State Poultry Development training programme	Animal Husbandry Department,Tamilnadu	Native chicken Rearing Training	3 days	61,800
2	Farmers Orientation Training Programme	Tamil Nadu Livestock Development Agency (TNLDA)	Workshop on Breeding and Feeding Management in Dairy animals	1 day	1,00,000
3	Cluster Fld's On Oilseeds And Rabi Pulses 2017-18	ICAR	ICM Practices and Introduction of Elite varieties	1 Year	10,45,000

Please attach detailed report of each project/programme separately

ICAR – KVK, KANCHEEPURAM –REPORT OF CLUSTER FLD's ON OILSEEDS AND RABI PULSES 2017-18

Crop-wise cluster FLDs sanctioned and implemented during *Rabi* oilseeds under NMOOP during 2017-18 by KVK

Sl No	Name of the crop	Demonstrations (No)		Area (ha)	
		Sanctioned	Implemented	Sanctioned	Implemented
1.	Groundnut	175	175	70	70

Groundnut: Seeds and other critical iputs (*Groundnut seeds*) distributed to the cluster FLD beneficiaries on at Keezhakkandai,Thirupulivanam And Maruthuvanvadi cluster. Out of 175 demos, 175 number of demonstration sowing was completed as on till date. Remaining demos sowing is in progress and it will be completed on or before Ist Week January.

Crop-wise variety/varieties and production technologies demonstrated or to be demonstrated under NMOOP during *Rabi* - 2016-17.

Sl No	Name of the crop	Improved variety / varieties	Check variety / Farmers variety	Production technologies
1.	Groundnut	(Dharani 13) 2017	TMV 13	➢ Introduction of high yielding Groundnut varieties (Dharani 13) seeds – 180 kg / ha ➢ Seed treatment - *Pseudomonas florescence - 10g/Kg of seed*

				➢ TNAU Groundnut Rich – 5.0 kg/ha ➢ Pheromone traps @ 12no/ha with lures 3 changes* ➢ Recommended dose of NPK fertilizers (25:50:75kg/ha)*+ Sulphur -60kg/ha* *contribution from farmers

Crop-wise training and extension activities organized as on date with photographs

Training programmes

Sl. No.	Title of training	Number of participants		
		Male	Female	Total
1.	PRA and Training-Groundnut - Madhuranthagam 28.11.2017	29	6	35
2.	Integrated Crop Management in Groundnut crop at Uthiramerur - 08.01.2018	64	11	75
3	Regular field Visit - Uthiramerur 07.03.2018	9	6	15
4	Regular field Visit - Madhuranthagam 20.03.2018	14	3	17
5	Final Field Visit - Madhuranthagam 20.03.2018	8	4	12
6	final Field Visit -Uthiramerur 09.03.2018	5	1	6
7	Field Day – Madhuranthagam 13.04.2018	28	11	39

B) Extension activities

Sl No	Name of the activity	Number of participants	
		Farmers	Extension participants
1.	Groundnut - Seed distribution cum PRA& Trainingat Madhuranthaga m cluster on 28.11.2017	135	4
2.	Groundnut - Seed distribution cum ICM Training at Uthiramerur cluster on 08.01.2018	39	3

Year 2017-18

Crop	Allocation (sanctioned)		Achievements		Tech. demonstrated	Yield (kg/ha)		Yield gap	
	Area (ha)	No. of FLDs	Area (ha)	No. of FLDs		C-FLDs	Check variety	Kg/ha	%
CFLD-Pulses	Greengram,Rabi,VBN3 BlackgramRabi, VBN6	75 50	75 50	75 50	ICM Practices ICM Practices	960	710	250	15

Seed Hub Project: ***"Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India"***

Quality Seed Production Reports

Season	Crop	Variety	Production (q)

			Target	Area sown (ha)	Production	Category of Seed (F/S, C/S)
Kharif 2017	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**
Rabi 2017-18	**Green gram**	**VBN3**	**300**	**30.0**	**75.00**	**F/S**
	Black gram	**CO 6**	**500**	**4.4**	**38.50**	**F/S,C/S**
		VBN 5		**15.6**	**8.50**	**C/S**
		VBN 6		**11.2**	**120.00**	**C/S**

15. Success stories

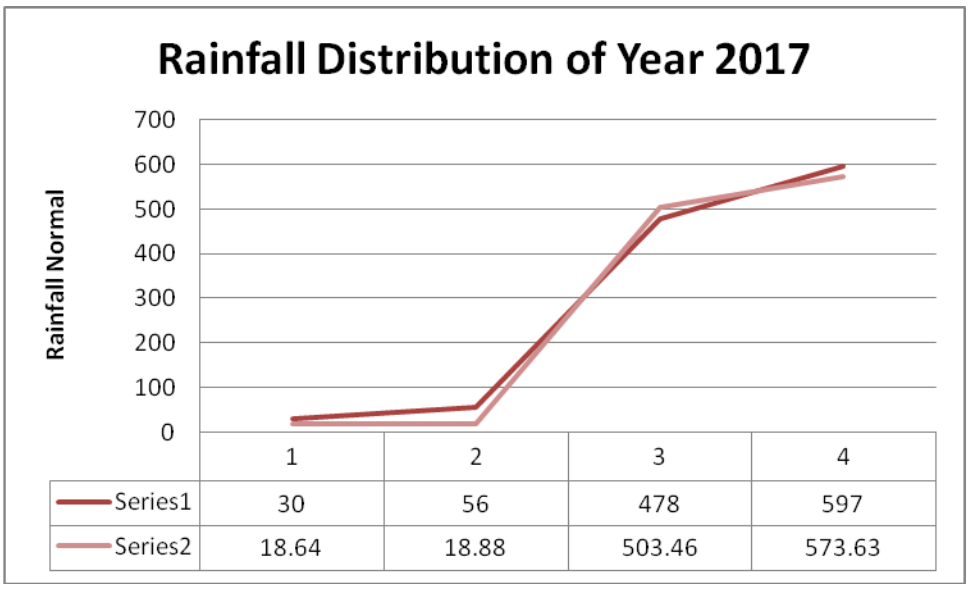
15. A. Success stories/case studies

Success Story – 1

SUCCESS STORY OF FARMER CULTIVATED VBN-3 VARIETY

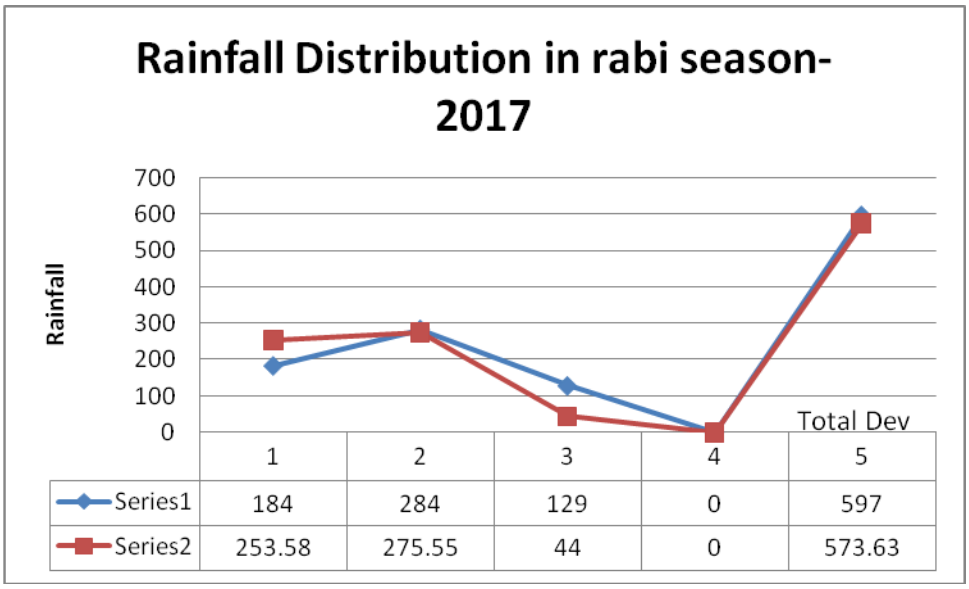
1. Problem Statement

Pitchivakkam a Village in Sriperumbudur Block of Kancheepuram District, the farmers an fond of Cultivating Pulses, Rabi season of every Year, But the farmers regularly facing problem of YMV incidence and lack of availability of elite varieties. Through the water source is sufficient for Pulses cultivation, still the climatic condition, during the season and farmers Unscientific Cultivation method, be season for incidence of pest an diseases. The farmer who achieved highest yield is Mr.K.Manogaran is a standing example for the success.



Source : Department of Agriculture, Govt. of Tamilnadu

Rabi Season is the Main season for cultivation of Greengram.The deviation of Rainfall is narrow compared to previous years. Highest rainfall received during the end of the period of precipation is having its highest impacts in the promotion of yield because of its **residual moisture**.



Source : Department of Agriculture, Govt. of Tamilnadu

2. ***Plan:***

By conducting survey in different blocks of Kancheepuram district, the intensity of problem was ascertained. To alleviate the problem, elite Green gram (VBN- 3) seeds which re resistant to pest and diseases were supplied to farmers of Pitchivakkam under Cluster Front Line Demonstration project 2017 – 18.Concurrently PRA, training conducted in selected Village in Sriperumbudur Block of KancheepuramDistrict. Elite variety of Greengram VBN: 3 seeds distributed to 75 farmers to cultivate the same in 1 acre each in the specified fields. Frequent visit and advisories entered to the farmers then and there.

Interventions	Number of Programmes	Remarks
PRA	2	Assessment
Field visit	8	For Implementation and Evaluation
Field day	1	Feed backEvalauation
Elite Seed Distribution	2	Two blocks covered
Line Sowing	1	Demonstration
Seed Treatment	1	Demonstration
Crop Stand Evaluation	3	Yield Assessment

3. ***Output:***

By Introduction of this elite VBN–3 Variety under Cluster Front Line Demonstration project. Farmers have all got disease and pest free harvest. In an average farmers obtained a BCR of 1.9 – 2.1 by cultivating this variety following the specified technologies such as line sowing, seed treatment with Bio fertilizers and Bio pesticides. The introduction if Integrated Pest Management and Integrated Crop Management methods considerably reduced the external application of critical inputs.

4. ***Outcome:***

The technology introduction of elite variety spread over to the adjoining areas vizPattumudayarkuppam and Padunelli.The farmers received higher returns for the amount invested,

5. ***Impact:***

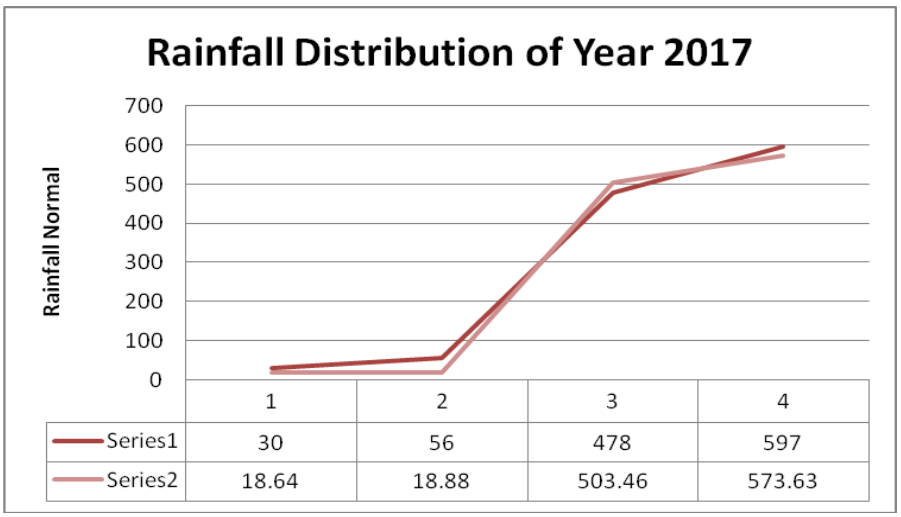
Right now the cultivation of VBN-3 Green gram increased from 110 to 285 ha. Because of introduction of new variety which shown extreme resistance to incidence of Pest and Diseases

Success Story – 2

SUCCESS STORY OF FARMER CULTIVATED CO-52 Paddy

1. Problem Statement

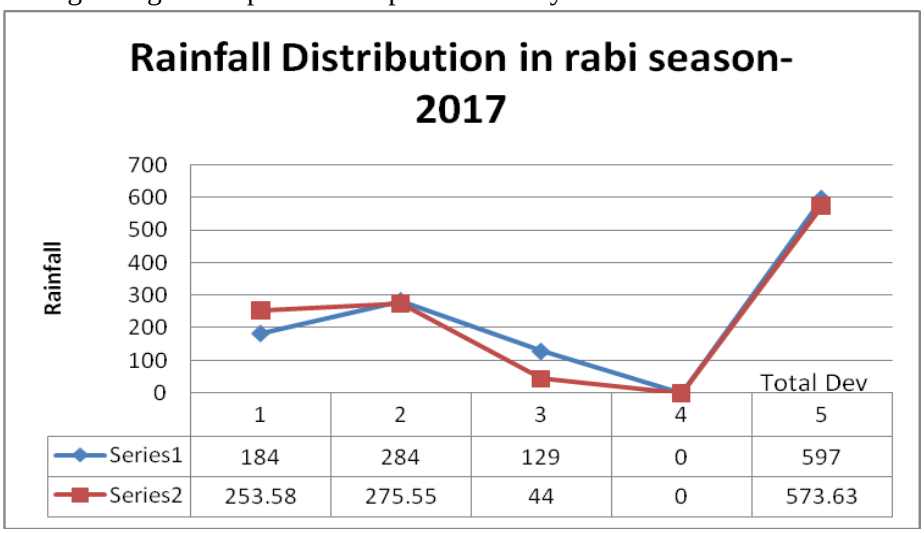
Govindavadi a Village in Kancheepuram District, the farmers an fond of Cultivating Paddy,in Rabi season of every Year. But the farmers regularly facing problem of Lodging of paddy and low yield by cultivating the local varieties. Through the water source is sufficient for Paddy cultivation, still the climatic condition, during the season and farmers Unscientific Cultivation method, be the reason for incidence of pest an diseases. The farmer who achieved highest yield is Mr.Pazani is a standing example for the success.



	1	2	3	4
Series1	30	56	478	597
Series2	18.64	18.88	503.46	573.63

Source : Department of Agriculture, Govt. of Tamilnadu

Rabi Season is the Main season for cultivation of Paddy.The deviation of Rainfall is narrow compared to previous years. Highest rainfall received during the end of the period of precipation is having its highest impacts in the promotion of yield.



	1	2	3	4	5
Series1	184	284	129	0	597
Series2	253.58	275.55	44	0	573.63

Source : Department of Agriculture, Govt. of Tamilnadu

2. Plan:

By conducting survey in different blocks of Kancheepuram district, the intensity of problem was ascertained. To alleviate the problem, elite VBN-3 seeds which are resistant to pest and diseases were supplied to farmers of Govindavadi Front Line Demonstration project 2017 – 18.Concurrently PRA, training conducted in selected Village in Kancheepuram District. Elite variety of CO-52 seeds distributed to 15 farmers of the village to cultivate the same in 1 acre each in the specified fields. Frequent visit and advisories entered to the farmers then and there.

Interventions	Number of Programmes	Remarks
PRA	1	Assessment
Field visit	4	For Implementation and Evaluation
Field day	1	Feed backEvalauation
Elite Seed Distribution	1	Two blocks covered
SRI	1	Demonstration
Seed Treatment	1	Demonstration
Crop Stand Evaluation	2	Yield Assessment

3. Output:

By Introduction of this elite CO-52 Variety under Front Line Demonstration project. Farmers have all got disease and pest free harvest. In an average farmers obtained a BCR of 1.6 by cultivating this variety following the specified technologies such as SRI, seed treatment with Bio fertilizers and Bio pesticides. The introduction if Integrated Pest Management and Integrated Crop Management methods considerably reduced the external application of critical inputs.

4. Outcome:

The technology introduction of elite variety spread over to the adjoining areas vizSirukaveripakkam and also other blocks in Kancheepuramdistrict.The farmers received higher returns for the amount invested,

5. Impact:

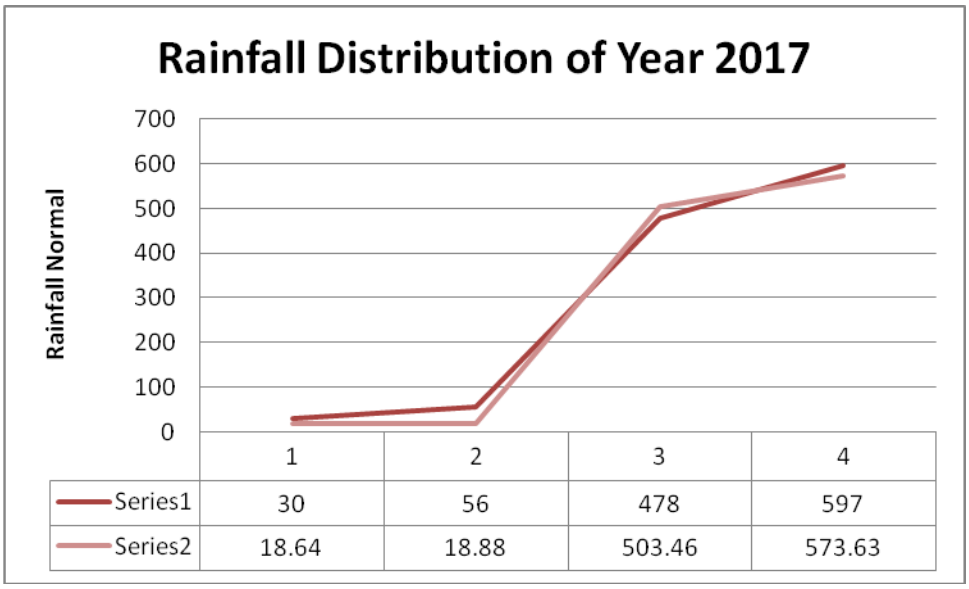
Right now the cultivation of VBN-3 Green gram increased from 110 to 285 ha. Because of introduction of new variety which shown extreme resistance to incidence of Pest and Diseases

Success Story – 3

SUCCESS STORY OF FARMER CULTIVATED DHARANI 13

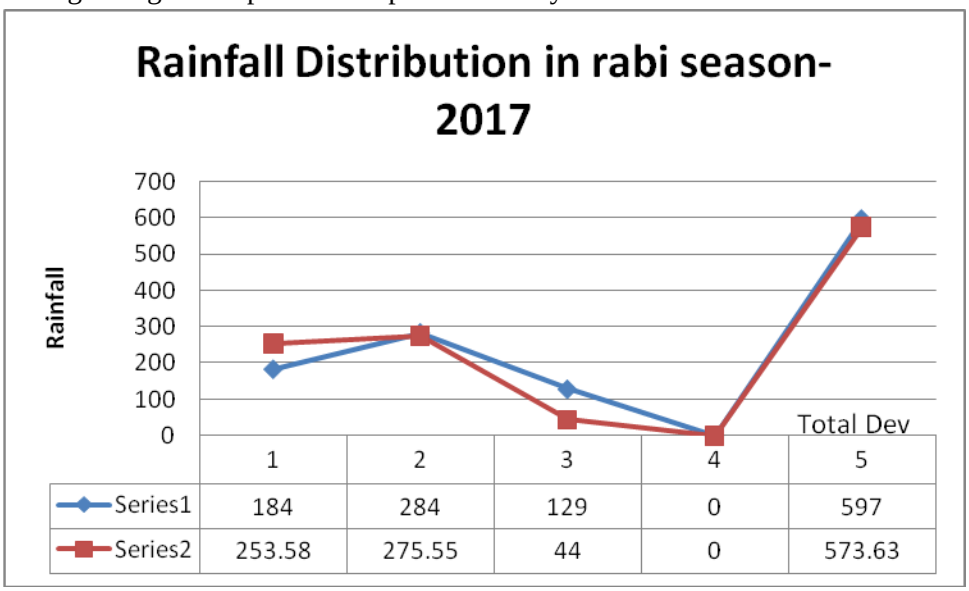
1. Problem Statement

Thirupuivanam a Village in Uthiramerur Block of Kancheepuram District, the farmers are fond of Cultivating groundnut,at Rabi season of every Year, But the farmers regularly facing problem of pest incidence and lack of availability of elite varieties. Through the water source is sufficient for groundnut cultivation, still the climatic condition, during the season and farmers Unscientific Cultivation method, be the reason for incidence of pest an diseases. The farmer who achieved highest yield is Mr.M.Parthasarathy is a standing example for the success.



Source : Department of Agriculture, Govt. of Tamilnadu

Rabi Season is the Main season for cultivation of groundnut.The deviation of Rainfall is narrow compared to previous years. Highest rainfall received during the end of the period of precipation is having its highest impacts in the promotion of yield .



Source : Department of Agriculture, Govt. of Tamilnadu

2. Plan:

By conducting survey in different blocks of Kancheepuram district, the intensity of problem was ascertained. To alleviate the problem, elite Dharani-13 seedswhich resistant to pest and diseases were supplied to farmers of Thirupulivanum under Cluster Front Line Demonstration project 2017 – 18.Concurrently PRA, training conducted in selected Village in Uthiramerur Block of Kancheepuram District. Elite variety of Groundnut seeds distributed to 135 farmers to cultivate the same in 30 cents in the specified fields. Frequent visit and advisories entered to the farmers then and there.

Interventions	Number of Programmes	Remarks
PRA	2	Assessment
Field visit	6	For Implementation and Evaluation
Field day	1	Feed backEvalauation
Elite Seed Distribution	1	Two blocks covered
Line Sowing	1	Demonstration
Seed Treatment	1	Demonstration
Crop Stand Evaluation	4	Yield Assessment

3. Output:

By Introduction of this elite Dharani-13 Variety under Cluster Front Line Demonstration project. Farmers have all got disease and pest free harvest. In an average farmers obtained a BCR of 2.5 by cultivating this variety following the specified technologies such as line sowing, seed treatment with Bio fertilizers and Bio pesticides. The introduction if Integrated Pest Management and Integrated Crop Management methods considerably reduced the external application of critical inputs.

4. Outcome:

The technology introduction of elite variety spread over to the adjoining areas .The farmers received higher returns for the amount invested.

5. Impact:

Right now the cultivation of d Green gram increased from 310 to 468 ha. Because of introduction of new variety which shown extreme resistance to incidence of Pest and Diseases

Success Story – 4

Eco-friendly Pest and disease management in groundnut – Demonstration(FLD)

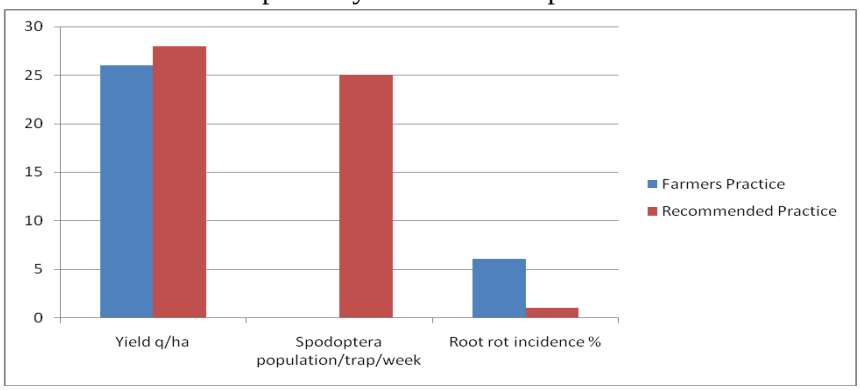
1. In Kancheepuram district, Groundnut is the major oil seed crop grower during rabi season covering nearly 2500ha area. During cropping season the farmers are facing problems of yield loss due to pest and disease attack. The major pest includes Tobacco caterpillar, leaf miner, Aphids and thrips. Root rot and leaf spot diseases are major issues during growth stages. This results in yield loss (30%) and increased cost of cultivation along withexcess use of chemicals to control them. The diagnostic field visits made in areas where ground nut is grown. Meeting, discussions with farmers and department officials were made to sort out the problem

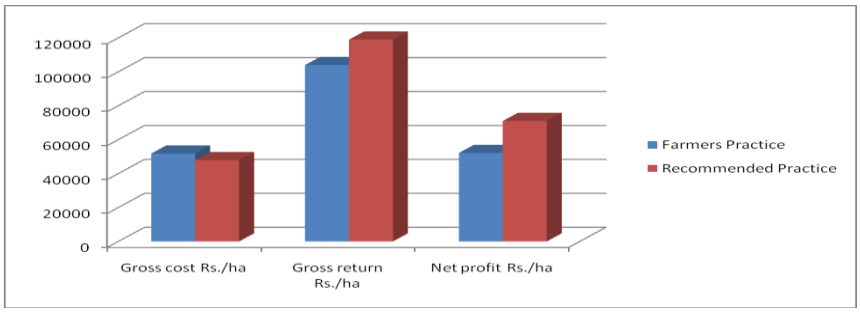
2. During Farmers – Scientist interaction meeting approaches which in economically viable and socially acceptable pest and disease management practices were explained to the farmers. In order to implement the package of practices, FLD programme was conducted in Nerumbur, Angamampattu and Sooradimangalamvillages of Thirukalukundram block with 15 farmers. Demonstration was conducted by supplying critical inputs like *Pseudomonas* for seed treatment (10g/kg of seed), *Trichoderma viride*for soil application (1Kg/acre), Pheromone traps & spodolures(10 Nos/acre) for tobacco caterpillar control, Sticky traps (10 Nos/acre) for sucking pest management and light trap (1 No./acre) for monitoring adult pests. SNPV (250ml LE/ha)

spray was recommended for tobacco caterpillar management. Training Programme on use of Bio-agents as soil application and seed treatment was conducted. Demonstrations on usage of traps were explained to the farmers. Farmers were trained in identification of pests and diseases.

Interventions	Number of Programmes
Diagnostic Field visits	5
Farmers – Scientist meet	1
Farmer identification	3
Demonstration	4
Data collection	3
Field day	1

3. Seed treatment with *Trichoderma* effectively managed root rot incidence compared to farmer's practice where no such treatment was made which resulted in root rot incidence (5%). By use of Pheromone traps, the farmers completely avoided application of chemical pesticides to control tobacco caterpillar (*Spodoptera* pest) which resulted in saving of Rs.3500/- in cost of cultivation. Moreover yield increase of 10% was observed. Farmers were able to identify pest and diseases this made them to adopt timely recommended practices.





4. During field visits, the villagers from nearby places were greatly influenced by the performance of pest management tools like pheromone traps and light trap usage. The farmers were able to identify the damage symptoms and note the incidence of adult pests. Importance of Crop pest defenders were also explained during field visits. A Radio talk was recorded by All India Radio, Chennai by a beneficiary farmer, Mr.Rajendran of Sooradimangalam.

5. By adopting eco-friendly approaches farmers were highly satisfied as it reduced their cost of pesticide application and this also increased their awareness on environmental safety and healthy living of farmers. In order to encourage farmers, Bio-products like pheromone traps and lures, sticky traps are being sold at ICAR-KVK, Kancheepuram under revolving fund activities.

Success Story – 5

Demonstration of Fruit fly management in Mango

1. Situation

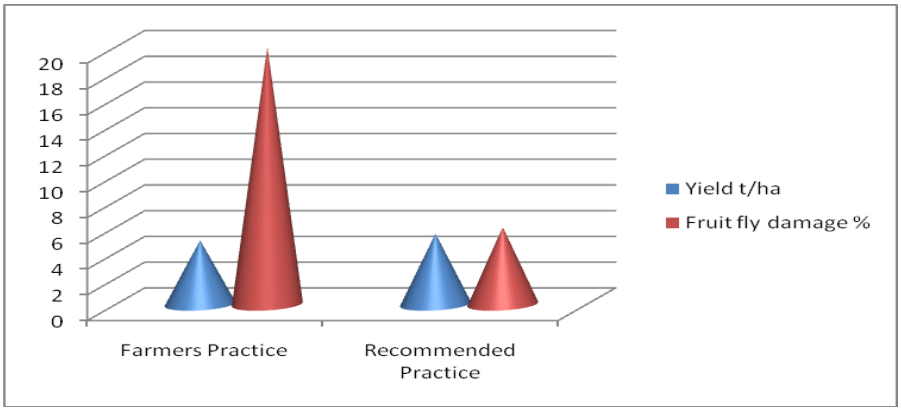
   Mango is a major income generating fruit crop for small and marginal farmers of Kancheepuram District (3124 ha). The major threat to its production is fruit fly infestation reducing quality and quantity of marketable fruits. Indiscriminate usages of pesticides in Orchards were seen resulting in high cost of pesticide applications. Calendar of operations for pest and diseases are not available to the farmers to manage the pests. The farmers weren't able to identify Pest and its damage symptoms.

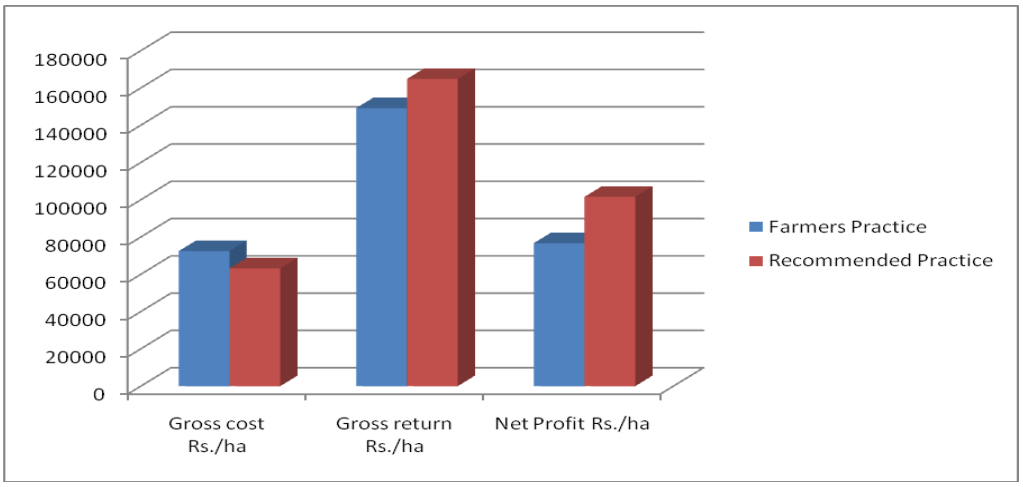
2. The methods of fruit fly management was discussed with Horticulture department staffs and area identified based on pest infestation. FLD was conducted in 30 farmer's field in villages of Palur, Iranyasithi, Uthukadu, Kattavakkam, Puthagaram, Maruderi, Kilur,Thondmanallur andEdaiyurcovering 3 ha in Pavunjur, Walajabad and Thiruporur blocks. The critical inputs like IIHR mango fruit fly traps (2 Nos. /acre) and Methyl eugenoltrap (1 No. /acre) were given.Bait mixture preparation (For an acre mixture of ripe Banana -25 nos, Fermented curd - 100g, Jaggery – 1kg and Yeast – 25g)was recommended. Spraying of Azadirachtin (0.3%) 2 ml/lt three weeks before harvest and the need for timely harvest was given importance. Ploughing of orchard during November-December suggested for killing the larvae. Collection and destruction of infected fruits was recommended to prevent the multiplication of the flies.

   Training and demonstrations on use of traps conducted to the farmers. The pest identification and symptom of damage were shown during field visits. Calendar of operations literature were distributed. Use of 300 ppm Neem oil spray recommended inuring initial period. Periodically field visits made to monitor pest population and change of lures done accordingly.

Interventions	Number of Programmes
Diagnostic Field visits	5
Farmers – Scientist meet	1
Farmer identification	5
Demonstration	4
Data collection	3
Field day	1

3. Installation of traps and timely spray of Neem oil controlled the pest population. Fruit flies trapped 6 Nos/Week was observed in traps. Chemical sprays weren't given for flies. This reduced the cost of about Rs.4200/-. This also increased yield to about 10%.By managing the fruit flies, incidence of anthracnose diseases in fruits was avoided.





4. Since pest identification and symptom of damage were shown to the farmers. They were highly satisfied about the traps usage in monitoring this and this other mangl growers to follow the technology of fruit flies management.
5. Calender of operation month wise benefitted the farmers to take up the control measures at proper time. This reduced unwanted chemical applications. Other mango growers were also greatly impressed by the usage of IIHR fruit fly and methyl eugenol traps.

Success Story – 6

DEMONSTRATION OF BOTTLE GOURD VARIETY PLR 1 IN KANCHEEPURAM DISTRICT

Problem Statement

Cucurbit vegetable cultivation especially Bottle gourd is the major vegetable covering many areas in Kancheepuram district. During discussion with Horticulture department officials and vegetable growers it was found that improved varieties were not cultivated and Integrated crop management practices were not followed. They were not following seed treatment procedures and use of biofertilizers.

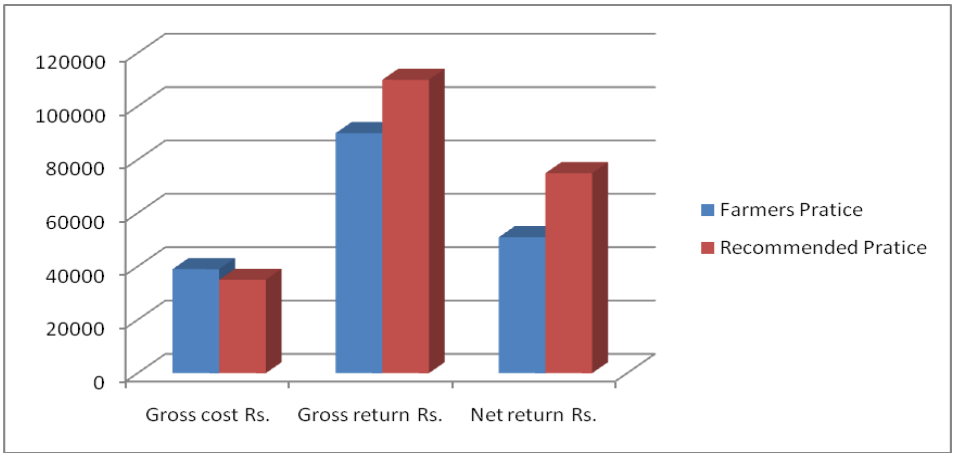
Plan:

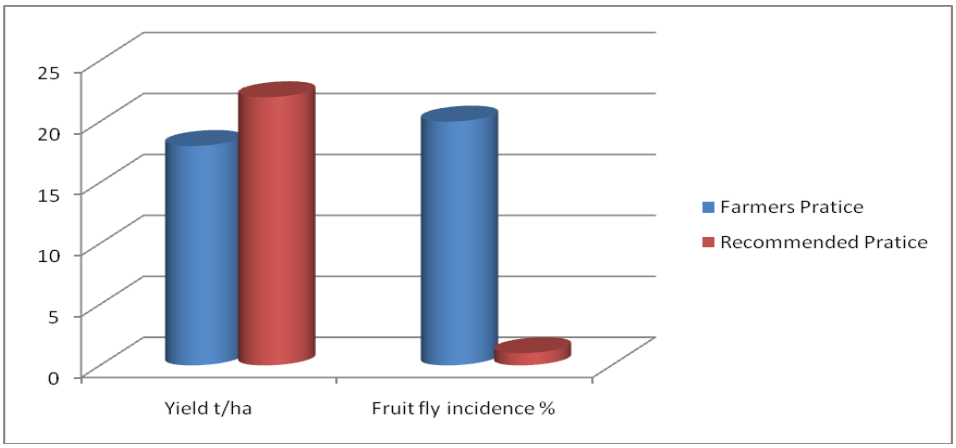
Field visits were conducted and farmer's practices were studied. To promote the use of new variety PLR 1 FLD programme was conducted in Pavunjur block covering Thondamanallur, Palur and Veerabhogam villages in 15 farmers' field in 3 ha area. Critical inputs like seeds of PLR 1, Biofertilizers, Bioagents and Fruit fly lures were distributed to the farmers.

Interventions	Number of Programmes	Particulars
Field visits	3	For Implementation and Evaluation
Seed treatment procedures	2	Off campus training
Crop protection	3	Training and Demonstration
Field day	1	Feedback Evaluation

Output:

By Introduction of this PLR 1 Bottle gourd, Farmers were able to grow dual purpose type bottle gourd. It had marketability value as vegetable and salad one. Due to installation of fruit fly trap with Baculo lures, incidence of fruit fly was reduced which increased the yield to 15% (22t/ha) compared to their conventional variety (18t/ha).





Outcome:

The introduction of PLR 1 bottle gourd spread over to the adjoining villages as it had salad quality. More over Integrated Crop Management practices gained importance as Seed treatment and Soil application of bioagents satisfied the farmers.

Impact:

As the variety is cultivable throughout the year, the farmers are finding it suitable for cultivation in their areas with more awareness to be given for marketing.

Success Story – 7

MINERAL BLOCKS SUPPLEMENTATION TO DAIRY CATTLE

Situation analysis / problem statement :

Since, ever growing human population is making scarcely available land even more scarce, the onus of improving milk output is by way of improving productivity of the animals. Concerted efforts is henceforth directed towards the dairy farmers mainly small / marginal landholders and agriculture labourers contributing major proportion of the country's milk production to provide necessary input and

make them adopt newer technologies to ensure substantial growth in milk output. There has been only modest improvement in the productivity of indigenous cows, crossbreds or buffaloes. The average daily milk production of the total female population of Kancheepuram district is 5.61 kg for crossbreds, 1.54 kg for indigenous cattle and 5.82 kg for buffaloes suggests that the productivity of these animals is far below their genetic potential. In addition to that, infertility and low production in dairy animals is one of the major problems faced by the farming community causing huge economic loss. Around 12-17 percentage of the total breedable population, is also very poor in reproductive performance. This is attributed in part to the deficiency of critical nutrients in the ration. This not only reduces milk production and increases costs per kg milk, but also affects various physiological functions including long term animal health, fertility and productivity.

Low productivity of animals with higher genetic potential can be primarily attributed to the imbalanced and inadequate feeding. Mineral levels measured in forages are lower than reported in standard cattle feed tables due to commercial fertilizers containing only N-P-K, decreasing manure applications and increasing crop yields which have led to the production of Mineralised salt lick that need to be supplemented for Kancheepuram district containing Calcium, Phosphorus, Magnesium, Copper, Zinc and Cobalt. To ensure improved production and productivity it is essential that milk producers feed their animals the minerals in amounts that match the physiological needs and objective of keeping the dairy animal.

Plan, Implementation and Support :

A Front line demonstration was conducted by KVK, Kattupakkam to popularise the Mineral blocks among the dairy farmers of Kancheepuram district. Twenty dairy farmers with five animals were selected from five villages and supplied 20 nos. of Mineral blocks for supplementation to their dairy animals during the year 2017-18. This technique is compared with the existing practice of no supplementation of mineral blocks to the dairy animals. It was found that the animals supplemented with TANUVAS mineral blocks has given improved milk yield. Milk yield (6.24 litres) and milk fat percentage (3.17) in the supplemented dairy animals than the one with no supplementation. BCR was found to be 1.92 as compared to the check (1.58).

Krishi Vigyan Kendra (KVK), Kancheepuram has taken steps to improve the feeding of essential minerals to the dairy cattle to improve their production and productivity through the following KVK mandatory programmes such as trainings, guest lectures, awareness programmes and field visits in collaboration with state department of animal husbandry.

Output :

The milk yield data recorded from different farmers at demo plots in Kancheepuram district under mineral blocks supplementation and given under Table -1.

Table 1: Average milk yield and economic parameters recorded in demo plot from Kancheepuram district

Parameters	Check	Demo
Milk Yield (litres)	3.46	6.24
Body weight gain (Kg)	225	237
Net return (Rs.)	760	1800
BCR	1.58	1.92

Outcome :

Five number of farmer teacher developed to handle training class on dairy farming along with the importance of feeding mineral blocks are given in the Table-2 below.

Table 2: List of farmer teacher developed in Kancheepuram district

Sl.No.	Name of the farmer	Specialised areas	Contact Mobile No.
1	Thiru.RathnarajaSingam Navalur	Dairy farming	9884000413
2	Thiru. Mugunthan Singaperumalkoil	Dairy farming	9444761179
3	Thiru. Mahesh Ayyampettai	Dairy farming	9445176001
4	Thiru. Paneerselvam Nazrathpettai	Dairy farming	9360314400
5	Selvi.Thirupurasundari Nariambakkam	Dairy farming	8675199951

After implementation of KVK activities especially demonstration, awareness programme, farmers field school, training and diagnostic field visit the adoption level of mineral blocks by the farmers of Kancheepuram district has increased to 40% level.

Impact:

KVK intervention had led to effective changes in feeding of mineral blocks among the dairy farmers of Kancheepuram district. The sale of mineral blocks has increased over the period of years making the farmers realize the importance of feeding mineral blocks in improving the milk production and productivity of the dairy animals. Farmers are satisfied with the improved milk production, milk fat percentage, improved body weight gain, infertility problem and general health condition of the dairy animals supplemented with the mineral blocks.

Success Story – 8

Integrated Livestock Farming

Situation analysis / problem statement :

Integrated farming activity has opened new horizons of increasing production per unit area at low inputs through an increased interest in utilization of animal manures as a substitute of high cost of major inputs (fish feed and inorganic fertilizer, involved in aquaculture). It is a multi-commodity farming system with the waste recycling as the key feature and fish culture as the major activity. The present economic pressure for maximizing food production and minimizing production cost with a general concern for energy conservation has led to an approach of integrating fish farming with animal husbandry and agriculture. The integration of fish culture with livestock or cash crops, holds a

considerable potential for augmenting production of animal protein, generation of employment opportunities in the rural areas and improvement of socio-economic condition of the farmer. with this concept.

Hence efforts should be taken to increase production through integration of various production system like animal-cum-fish or rice-cum-fish culture for efficient utilization of available meagre resources and maximisation of production of diversified products, from a minimum area, which will increase the income of the farmers and would enhance food production. A multi-commodity farming system presents more advantages to a mono-cropping system. But the commodity-integration must fit into the particular farmer's capability, resources and need as well as the social, economic and environmental factors around him.

In this context, Th. S.Sahadevan, an integrated livestock farmer from Pudhinathottam of Madurantagam Taluk of Kancheepuram district owned one acre of land. He is practicing mixed farming, which comprises of turkey, dairy, native chicken rearing (deep litter system) and fish farm. He consulted KVK scientists and participated in different animal husbandry training programmes for enhancing his income.

Plan, Implementation and Support :

After the training programme, he has started livestock farming comprising of dairy,turkey and native chicken. He is preparing his own feed for farm animals and birds.

Backyard Poultry

He had initial problems of chick mortality and remedial measures for the same was suggested in the form of proper brooding techniques and disease control measures. At present, he regularly procure chicks and sold the birds to the nearby shops. He is selling native chicken eggs at his residence at the rate of Rs.10 per egg. KVK provided the critical inputs like Oral pellet vaccine for prevention of Ranikhet disease in Poultry.

Turkey Farming

He was given 10 turkey poults under FLD programme by KVK, Kattupakkam. He reared the chicks till it attains maturity. He used brooding hens to hatch the turkey eggs. He got 12 more poults from the eggs. He sold the turkey meat @Rs.350/kg during weekends. At a point of time, he is advised to maintain 50 turkeys for slow and steady income through turkey farming.

Dairy farming

The farmer has five cows with calves. He cultivated fodder (Co-4 slips) and Azolla in his own farm for increased milk production. He sells the milk to the dairy cooperative society functioning in his village. Around 20 litres of milk is being sold to the society daily @ Rs. 28-32 per litre of milk depending on the fat percentage of milk. By way of milk, the farmer earns around Rs.16,800@Rs.30/litre. The animal waste such as cow dung, urine are utilised as natural manure for his paddy field maintained in 50 cents. Mineral blocks were provided under FLD programme by KVK, Kattupakkam. Paddy used for household purpose and the excess is sold for supplementary income.

Fish pond

The farmer maintained fish pond in 25 cents with fish varieties such as Rohu, Catla and Mirgal fish fingerlings. By this activity, he earns some amount annually. He utilised the fish for his own use and sale to his collegues and nearby farmers. Fish feed cost is reduced by supplementing cow dung waste as feed to the fishes reared in the pond.

Outcome :

Livestock component in IFS model	**Numbers**	**Appropriate income(Rs.)**
Total no. of chicks	500 nos.	-
Total no. of turkeys	20 nos.	-
No. of dairy cows	5 nos. and 5calves	1,00,800 (for six months)

Rate per bird (native bird)	Rs. 250/bird	1,00,000 (once in 6 months)
Rate per bird (Turkey-Rs.350/kg)	Rs. 350/ kg	17,500
Paddy and fish sales	Rs.1500/bag and Rs.100/kg of fish	20,000/annum
Gross income (Rs.)	-	Rs. 2,18,300
Expenditure incurred	-	Rs. 1,20,000
Net Profit	-	Rs. 98,300

Outcome :

He also motivated his village farmers for adoption of mixed livestock farming and azolla cultivation to improve their livelihood status. Two of them has ventured into Poultry farming and they regularly market their birds in nearby chicken centres and sometimes they also market their birds at their farm gate. He also motivated his village farmers for adoption of mixed livestock farming to improve their livelihood status.

The reasons for Mr. Sahadevan's financial success from his small area are: he does not depend on external inputs for his farm. Everything is sourced from his place itself. Secondly he markets the products himself and his entire family is involved in the work so he need not spend anything extra on labourers.

Impact :

- Provides regular income to the farmers
- Higher subsidiary income (Rs.98,000/annum)
- Direct marketing fetches higher return
- Backyard poultry rearing is profitable for small farmers and can be taken on commercial basis with suitable marketing tie –up with poultry outlets

Success Story – 9

Case study- Processing and Value addition Of Millets for the higher income generation of Farm women

Millets are more reliable and produce a harvest even under adverse growing conditions. Millets can be used for traditional as well as novel foods. The richness of starch, protein and fibre, niacin, magnesium, phosphorus, manganese, iron, potassium, essential amino acids and vitamin E make millets an important nutritional bio-source. In addition, millets have therapeutic benefits such as prevention of heart diseases, diabetes, migraine and premature death. In line with the recent awareness on functional foods and neutraceuticals, millets have a great potential. The revival of millets can be achieved through concerted efforts of research, marketing testing, and entrepreneurial training and demonstration to stimulate the processing of high quality, competitive products for urban areas. Thus, in dry regions, processing facilities are particularly vital to the future of local millet farming. Thus, millets are so compelling to agree the needs and to educate consumers on health benefits and to encourage increased consumption.

Millets production in Kancheepuram district is around 331 ha (950 ha) mainly finger millet and followed by other millets like foxtail millet, Barnyard millet and little millet.

Major problem faced by Millet growing Farmers

- Farmers grow millets and sell it as such without any processing,
- Poor market price for millets
- Lack of awareness on ready to eat millet foods
- Millets ready mixes

Processing technologies used for improving the edible and nutritional characteristics of millet as well as challenges, limitations, and future perspectives to promote millet utilization as food for a large and growing population.

2. Plan, Implement and Support:

KVK intervention in tackling the problem

- Providing technical advices to the farmers and farm women to doubling their income
- Proposed FLD programme on Parboiling of millets and nutrition retention
- Conduct of Training programmes (On and off campus)
- Standardization of new millets based products
- Conduct of Demonstrations
- Imparting latest packaging technologies
- Quality control measures and Licensing
- Providing marketing facilities and tie up with KVK Rural mart and Weekly Bazaar

Therefore, with value added strategies and appropriate processing technologies, the millet grains can find a place in the preparation of several value added and health food products, which may then result in high demand from large urban populations and nontraditional millet users.

3. Output: Results achieved

Conduct of Front Line demonstration on "**Nutrition retention in Parboiled millets"**

Demonstration was conducted in the millet based villages of Chithamur Block of Kancheepuram District.

Name of the Villages selected-Kannimangalam

Name of the Critical Input supplied-Parboiling Unit, Raw materials and packaging materials

No. of Groups-One group

Selected Farmwomen were given hands on training on parboiling of millets (Foxtail, Barnyard and Little millet)

Parboiling is basically the process of partial cooking the grain along with husk or bran. The raw grain is briefly steamed. The resulting product is dried, dehusked and decorticated. Parboiling increases the dehusking efficiency of Barnyard millet. This practice of tempering the grain before pounding produces slightly moist flour. Parboiling is basically the process of partial cooking the grain along with husk or bran. The raw grain is briefly steamed.

Parameters assessed-

Soaking of the Millets-10 kg of the **foxtail millet** was soaked in 20 lts of water

Soaking Time- Soaked for one hour

Water absorption capacity-It was assessed by draining excess water after one hour- it was found that 50% of the water ie. 10 lts of the water is absorbed.

Parboiling- Soaked millet along with remaining water was parboiled using parboiling unit

Time-Parboiling was carried out until the millet cooks and till the husk opens. It was absorbed that the time taken to parboil was 30 mts

Table I-Parboiling of Millets

Millet	Soaking time	Water absorption capacity	ParboilingTime
Foxtail millet	1 hr	50%	30 mts
Little millet	1 hr	40%	25 mts
Barnyard millet	1 hr	55%	40 mts

Excess water from parboiled millet was completely drained using bamboo basket and it was sun dried.Drying Time- It was absorbed that it took two days to drain the grain with 10% moisture.

Traditionally, dry, moistened or wet grain isnormally pounded with a wooden pestle in a wooden or stone mortar. Moistening the grain byadding about 10% water facilitates not only the removal of fibrous bran, but also the separationof germ and endosperm.

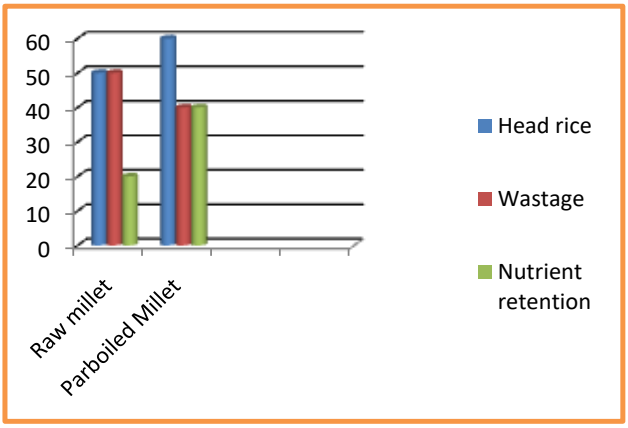
It was observed that the phytate content of common millet varieties ranged from 170 to 470 mg per 100 g whole grain, and dehulling resulted in a 27 to 53% reduction in phytatecontent. On dehulling, phytinphosphorus decreased 12% in common millet, 39% in little millet, and 23% in barnyard millet.

Dried millet was dehusked using machinaries which was installed in the nearby village in INSIMP project. Various parameters such as head rice recovery and percentage of loss were observed.

Table II -Milling of Millets

Millet	Head rice recovery (%)	Percentage of loss	Nutrient retention(%)
Raw Foxtail millet	50	50	20
Parboiled Foxtail millet	60	40	40

Figure I
Comparison of Milling Processing of Parboiled vs Raw Millet



4. Outcome: Horizontal spread

Millets processing technology was also given in the nearby villages includes Perunkaranai of Chithamur Block.

Name of the Villages selected-Perunkaranai

No. of Groups-One group

- Demonstration on processing of millets such as dehusking and head rice recovery was carried out for the selected farm women.
- Packaging and marketing of the finished product.

Horizontal spread- SHG/Farm women who turned as successful Entrepreneurssuccess stories were published in local magazines, Daily News papers and also through All India Radio and community Radios.

5. Impact: Large scale/macro level (district/state) evidences related to technological benefits

Processing and value added millets products were also demonstrated through other training programmes for the benefit of Kancheepuram farmers and farm women.

Intervention technology:

The lectures and Hands on Demonstration includes the following topics.

- Lecture on processing and value addition of Millets
- Demonstration of Millets based bakery products
- Demonstration of Millets based ready mixes in the commercial form-
- Adai mix
- Chapathi mix
- Dosai/Idli mix
- Iddiyappam/kozhukattai mix
- Murukku mix
- Uppuma mix
- Millets Health mix
- Millets cookie
- Millets cake
- Millets Bread
- Millets Biscuits

More than 20 Farm women and SHG women who underwent training in KVK adopted the technology and started the enterprise on value added Millets products such as ready to eat foods, ready mixes and bakery products.

Success Story –10

Value added Milk Product Paneer-A Boon to Dairy Farmers

India ranks first in milk production. Since time immemorial, a significant proportion of milk has been used in India for preparing a wide variety of value added dairy delicacies.

Paneeris a soft cheese prepared by acid and heatcoagulation of milk. It is popular throughout South Asia and used in the preparation of anumber of several culinary preparations and snacks. It has led India to emerge as the largest milk producer in the world,transcending a record level of 104.8 million metric tonnes (MMT) in 2008 accounting for15% of the world's total milk production. An estimated 5% ofmilk produced in India is converted to paneer.

Paneer is produced at small scale and industrial level. Cow, buffalo or mixed milk may be used but buffalo milk is preferred. Paneer pressing device was designed in order to facilitate the dairy farmers and paneer producers.

Milk production in Kancheepuram District is 46.3 m.tonnes and the milk production in the study area was more and inorder to assist dairy farmers in the production of paneerusing minimum effort and cost an attempt was taken. Paneer pressing machine with minimum capacity was fabricated to facilitate small farmers/Entrepreneurs.

Major problem faced by Dairy Farmers includes

- Poor market price for milk due to excess production
- Lack of awareness on processing of milk
- Poor storage facilities for milk
- Poor marketing strategy for raw milk

2.Plan, Implement and Support:.

KVK intervention in tackling the problem includes

- Providing technical advices to the farmers and farm women to doubling their income
- Proposed FLD programme on "Increasing shelf life of paneer using herbs and spices"
- Conduct of Training programmes (On and off campus)
- Standardization of new Milk based products
- Imparting latest packaging technologies
- Quality control measures and Licensing
- Providing marketing facilities and tie up with KVK Rural mart and Weekly Bazaar
- Popularization of Paneer production among Farm women and SHG women through Trainings and Demonstrations.

Paneer is analogous to fresh, unripe soft cheese made by heat and acid coagulationof milk and is used for preparation of various culinary dishesand acts as an ingredient for vegetable dishes and snacks. There is a wide variation in thechemical composition and yield of paneer due to the use of varied techniques by paneermanufacturers.Therefore, with value-added strategies and appropriate processing technologies, the milk can be processed in a better way to improve the marketing of milk and to get better income to the dairy farmers.

3.Output: Results achieved among participating farmers, groups in terms of gain in knowledge and skills, productivity in the demonstration field/enterprise, reduction in problem in terms of pests and

disease attacks, increased economic benefits, increase in volume of production, processed products quantity and quality etc.

Conduct of Front Line demonstration on "**Increasing shelf life of paneer using herbs and spices"**

Demonstration was conducted in the millet based villages of Madhuranthagam Block of Kancheepuram District.

Name of the Villages selected-Silavattam and Puthinathottam

Name of the Critical Input supplied-Paneer pressing device, Raw materials and packaging materials

No. of Groups-Two Farm women group

Selected Farmwomen were given hands on training on value added milk products paneer using different flavours.

Standardization of paneer using different coagulant

Milk(lt)	Name of the coagulant	Yield (g)
10	Lemon	1.700
10	Citric acid	1.400
10	Vineger	1.500

An attempt was made to differentiate the different type of paneer using milk withdifferent fat levels.

Table II- Paneer with different fat levels of milk

Different types of milk Cow milk: buffalo milk	Fat level	Flavour	Colour	Structure
50:50	5%	Nutty flavour	White	smooth texture
65:35	5.18%	Milky flavour	Yellowish white	Good
80:20(Skim milk)	3%	Milky flavour	Yellowish white	Good

Cow milk 80% and buffalo milk 20% found most appropriate combination to produce paneer and also cost effective.

Demonstration of Flavouredpaneer using herbs and spices

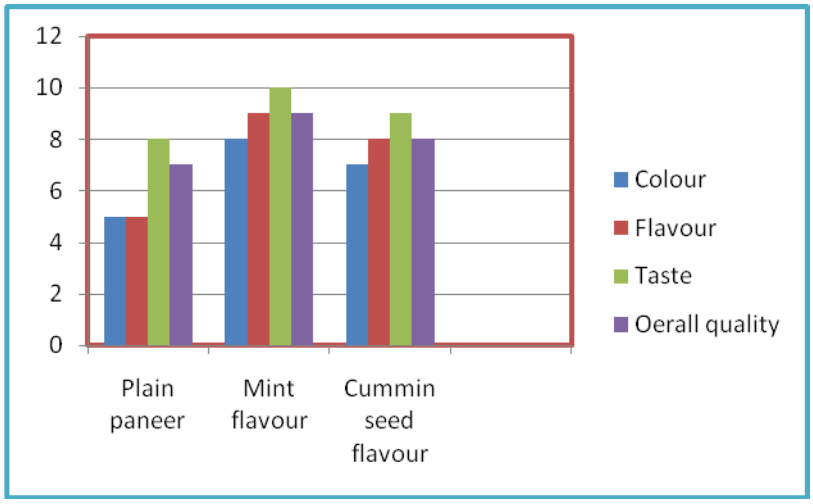
Paneer was prepared by using herbal extract-

- Mint extract was prepared by boiling 100g of mint in one litre of water and extract the juice.
- Add 50 ml of the extract in 7lts of boiling milk along with 5g of citic acid until it gets coagulated
- Filter the whey water and press using paneer pressing device.
- Spiced paneer-Cumin seed (30g) is boiled in 100ml of water and filter the extract.
- Add 50 ml of the extract in 7lts of boiling milk along with 5g of citic acid until it gets coagulated
- Filter and excess whey was removed using paneer pressing device.
- Store under refrigeration

Sensory quality of paneer

The ultimate aim of any food item is not only to provide nutrients but also to givesense of delight to consumers by virtue of desired colour, flavour and texture. The quality ofpaneer depends upon the quality of milk from which it was made. Milk fat exerts significanteffect on the organoleptic quality of paneer. Sensory quality of produced paneer was assessed.The sensory score increased with increasing fat (4 to 6%) levels. Low fat paneer withacceptable organoleptic quality was made from cow milk with 3.5% fat. A coagulationtemperature of 85 °C has been found ideal for paneer making from reconstituted milk (15.0%TS).

Fig I-Quality parameters for Flavoured and spiced paneer



Shelf Life, Packing and Labelling

The relatively short shelf life of paneer is a major handicap in the commercial adoptionof paneer manufacture. The shelf life of paneer is reported to be only 6 days underrefrigeration though its freshness is lost within 3 days. At room temperature paneer does notkeep good for more than one day. Storage ofpanner in Flexible packaging films like polypropylene, retort pouches and co-extrudedlaminates hold a great promise for packaging paneer for longer period.

- Flavouredpaneer increases shelf life upto 20 days under refrigeration without any detoriation in flavour and taste
- Increases colour into light yellow and light green and with good Mint and cumin seed aroma.
-

4.**Outcome:**

Popularization of Paneer production among Farm women and SHG women

Training programmes were conducted to the farm women and SHG women for paneerproduction using low cost paneer pressing device. Trained members also facilitated to markettheir products with quality testing and labelling. Ten training and demonstration programmesconducted over a period of one year and thirty device were supplied to the farm women tostart an enterprise.

Horizontal spread- SHG/Farm women who turned as successful Entrepreneurssuccess stories were published in local magazines, Daily News papers and also through All India Radio and community Radios.

Literature Published

Literature in the form of popular articles related to processing and value addition in milkin the local language. Pamplets on Flavoured milk preparation, paneer preparation,Yoghurt preparation and value added channa products for the benefit of the dairyfarmers have been published.

Cost Analysis

Price of milk 1 lt – Rs.25/-

Plain paneer

For 1 kg of paneer 7 lts of milk is required- 7X25=175
Production cost - Rs. 8/-
Total - Rs.183/-
Sale price -Rs.275/-
Net return -Rs.92/-

Flavoured paneer

For 1 kg of paneer 7 lts of milk is required- 7X25=175
Production cost - 10
Total - Rs.187/-
Sale price -Rs.350/-
Net return -**Rs.165**/-

5. Impact:

Processing and value added milk products were also demonstrated through other training programmes for the benefit of Kancheepuram farmers and farm women.

Intervention technology:

KVK organizes training programmes in Food processing and Value addition. Thesetrainings help farmers and farm women in gaining technical skill and knowledge to startthe enterprise for self employment and improving the existing practices of milkprocessing like flavoured milk, khoa, paneer, whey drink, yoghurt and other fermentedmilk products were demonstrated. They were also provided technical information onpacking, licensing and marketing of the final products.

The lectures and Hands on Demonstration include the following topics.

- Lecture on processing and value addition of Milk
- Demonstration of Novel milk products including ice cream, yoghurt.

Paneer preparation technology was adopted by

EDP

Entrepreunership development programme on "Value Added Vegetables Products for Income Generation of SHG"

Introduction

As women play an active role in the economy of the families, they are enough to invest money and lead better life. There is a linkage between women's access to independent income and her position in the family. It is believed that when women are provided credit and they take up income generating activities, their income is expected to increase. To give rural women visibility they must get organized into self help groups. Group approach is a viable setup to empower women economically, socially and technologically for improved life. Role of SHGs is emerging as promising tool in this context. The SHGs are created to enable the joint responsibility towards self and sustainable development.

Concept

The SHGs bring out the capacity of women in molding the community in right perspective and explore the initiative of women in taking the entrepreneurial ventures. The processes of learning by doing and earning would certainly empower rural women. Self employment also conducive to the development of individual initiative and entrepreneurial talent and offers greater personal freedom.Vegetables consist of a large group of plants consumed as food. Perishable when fresh but able to be preserved by a number of processing methods.When vegetables are maturing in the field they are changing from day to day. There is a time when the vegetable will be at peak quality from the stand-point of colour, texture and flavour.

- This peak quality is quick in passing and may last only a day. Harvesting and processing of several vegetables, including tomatoes, corn and peas are rigidly scheduled to capture this peak quality. Processing (canning, drying, freezing, and preparation of juices, jams, and jellies) increases the shelf life of fruits and vegetables. Processing steps include preparation of the raw material (cleaning, trimming, and peeling followed by cooking, canning, or freezing.Traditional processing methods - drying, concentrating, heating (cooking, baking, frying) cooling, use of additives - preservatives, acidification, fermentation.

Background :

Women group from Puthagaramof Wallajabad Block, Kancheepuram District was selected for the EDP. SHG women group includes the following members

1. Mrs. S. Jayanthi
2. Mrs. C. Suganya
3. Mrs. N. B.Eswari
4. Mrs. P. Anjali
5. Mrs. K.Karpagam
6. Mrs. K.Sivakami.
7. Mrs. G.Ponnammal.

8. Mrs. P.Malar
9. Mrs.V.Anjalai
10. Mrs. R.Kanniammal

Selected farm women were from lower middle class families and from 30 to 35 years of age. Before intervention all the members were doing farming activity mainly vegetable cultivation. Members were selected based on their interest and involvement in the food processing sector. After getting their family members permission they formed a group and participated in the training programmes.

Major problem faced by Vegetables growing Farmers includes

- Price fluctuation during peak period
- Poor storage facilities in the farm/village level
- Lack of awareness on processed foods

Plan, Implement and Support:

KVK intervention in tackling the problem

- Providing technical advices to the farmers and farm women to doubling their income
- Conduct of Demonstrations
- Imparting latest packaging technologies
- Quality control measures and Licensing
- Providing marketing facilities and tie up with KVK Rural mart and Weekly Bazaar

Intervention technology:

Conduct of well planned ten classes for the entire period. The lectures and Hands on Demonstration includes the following topics.

- Lecture on processing and value addition of vegetables
- Demonstration of vegetables based products in the commercial form-
- Demonstration of Groundnut based foods-

- Pickles
- Powders
- Ketchup
- Vathal (Dried vegetables)

Inputs supplied to the EDP group

- Hand operated Packaging Machine
- Packaging pouches
- Demonstration materilas

Vegetables mainly Bhendi, Brinjal, Tomato, Gourd varieties, cluster bean, chillies, Raddish and Greens were grown by the farmers in the selected village. The farm women who possess vegetable farm were involved in the programme.

Processing technology transmitted during training programme includes

- Tomato Pickle
- Tomato vathal
- Tomato powder
- Brinjal pickle
- BrinjalVathal
- Bhendi Pickle
- Bhendivathal

Farm women who participated in the EDP programme were very much interested in starting an enterprise. They are preparing vegetable products mainly pickles and vathal and selling in their own village and nearby villages.

FARMERS FIELD SCHOOL – INTERGRATED CROP MANAGEMENT PRACTICES IN BHENDI

Background:

Farmers Field School Programme on Intergrated Crop Management Practices in Bhendi was conducted in Nathanallur village, Walajabad block of Kancheepuram district. Vegetable cultivation is a major enterprise of the area, where Bhendi, Brinjal, Cucurbits and Greens are mainly seen. Group discussion was organized by KVK Scientists, Horticulture department officials with the farmers regarding vegetable cultivation. It was expressed by the farmers that the Bhendi variety/hybrid which they are cultivating resulted in high cost of production along with incidence of pest and diseases. Among the measures discussed to reduce the cost of production and increase productivity it was proposed to conducts FFS programme on ICM packages in Bhendi. The farmers were briefed about the recommended practices. The farmer's practice on Bhendi cultivation was studied and based on that recommendations suggested. A group of 25 vegetable farmers of the village were selected for the programme.

Intervention:

Farmers Field School Programme on Intergrated Crop Management Practices in Bhendi along with all cultural practices given in form of training and demonstration.

Intervention process:

FFS programme conducted in Mr.E.Venkatesan field in Nathanallur village in 50 cents area. The classes were scheduled as follows:

S.No.	Topic	Events
1.	Importance of FFS programme and Problem Identification	Group discussion
2.	Soil Sampling and Land preparation	Training and Demonstration
3.	Seed treatment and Sowing	Training and Demonstration
4.	Intergrated Nutrient Management	Training and Demonstration
5.	Weed management and Irrigation management	Training and Demonstration
6.	AESA technique	Training and Demonstration
7.	Harvesting	Lecture and
8.	Field Day	Feed back

Critical inputs were supplied as follows:

- Bhendi Hybrid CO 4 seeds
- Neem cake
- Biofertilizers - *Azospirillium* and *Phosphobacter*
- Bio agents – *Trichoderma viride* and *Pseudomonas*
- Foliar nutrients
- Biopesticides – *Beauveria bassiana, Metarhizium anisophilae* and *Trichogramma* parasitoid egg cards
- Neem oil
- Pheromone traps with lures, light trap and sticky traps
- Need based chemical applications

Lectures, training and demonstrations were conducted as per recommended practices. In order to create awareness on importance of soil nutrients, Soil sampling done and based on the soil report fertilizers dosage recommended. Seed treatment with bioagent and biofertilizers demonstrated along with soil application of bioagent and biofertilizers @1kg/acre. Foliar spraying of 19:19:19 fertilizer given from 30 days after sowing with 10 days interval. During Weed management lecture, different types of weeds and their control aspects were dealth with. Integrated Pest and Disease management practices were demonstrated by installation of light trap @ 1no./acre, pheromone traps @ 10 nos/acre and sticky traps @ 10 nos/acre. Farmers were given training on identification of pests and diseases. Natural enemies identification was demonstrated to the farmers.

Impact:

Through the FFS programme

- Farmers were able to take the right crop management decisions at every stage of the crop
- Farmers developed a regular habit of visiting their field and monitoring crop pest and diseases
- The Hybrid Bhendi CO-4 performed well compared to other varieties as it fetched yield of 10t/acre. The crop was yellow mosaic virus resistant and had market price of Rs.20/kg.
- Farmers queries were cleared then and there by frequent contact between farmers and facilitators
- Most of the farmers were able to differentiate the pests and defenders of crop and realized the importance of conservation of natural enemies
- Few indigenous technical knowledge like butter milk spray to control sucking pests which was of low cost and effective were recorded and the same was replicated in FFS farmers field
- Though controversises on pesticidal vs non pesticidal management by use of bioagents as seed and soil application, biopesticides application among the farmers, they ultimately accepted the concept of IPM technologies in Bhendi cultivation.

Success Story – 11

Demonstration of Pangasius catfish culture for short seasonal farm ponds

Situation analysis/ Problem statement:

Freshwater fish culture in the country has witnessed development of specific and widely adaptable culture systems with regard to type of water bodies, culture period, inputs use and with due consideration to the availability of local resources, economic strength of the farmers and market acceptability of the produce. Among total fish production, Inland fisheries sector contributes 78% share, among them carps alone contributing over 85%. Among total water spread of Kancheepuam district possessed, while 59.18% are consisting short seasonal water bodies. The exotic freshwater catfish *Pangassius sutchi* was first introduced into India in the year 1995-96 in the state of West Bengal from Thailand through Bangladesh. Initially farming was carried in limited area in the states of West Bengal and Andhra Pradesh. But since 2004 the farming of Pangasius has spread due to the commercial importance and by 2008 it is estimated that Pangasius is being farmed in about 40,000 ha with an expected production of 1.80 to 2.20 lakh tons. There is a growing interest among the farming community in other states as well to take up Pangasius culture in a larger extent, thus paving way for demand for its seed and for establishment of commercial scale hatcheries. Pangasius is farmed under monoculture or polycuIture with carps. Although Pangasius species are contributing the better shares, but the total inland fish production and seed production are fluctuating and showing negative growth in the recent years.

Table 1: Fish production in last five years in Tamil Nadu

Year	Inland		Marine		Total		Fish Seed Production
	Inland	Growth	Marine	Growth	Productio	Growth	No of fish seeds

	(‘000 tons)	rate (%)	(‘000 tons)	rate (%)	n (‘000 tons)	rate (%)	produced (million fry)
2009-10	181.80	7.65	401.13	9.81	529.28	9.13	529.28
2010-11	210.20	15.62	404.61	0.87	291.82	5.46	291.82
2011-12	184.75	-12.10	426.74	5.47	611.49	-0.54	431.84
2012-13	191.96	3.90	428.44	0.40	620.40	1.46	188.20
2013-14 (Provisional)	192.03	0.36	432.27	0.89	624.30	0.62	2871.50

(Source: Report of Department of Animal Husbandry, Dairying and Fisheries, 2015-16)

The technological interventions during the recent years have led to increase the mean national fish production levels from about 600 kg/ha to over 2,800 kg/ha. The Tamil Nadu naturally fertile and highly potential for fish seed production as well as food fish production. This land is irrigated to a larger extent by extensive canal system and also flood banks of the terrain. The Kancheepuram district is having approximately 1293.18 ha of short seasonal fresh water farm pond resources. At present, there is a huge demand existing for inland fish production due to the low productivity of fish production per unit area of hectare and attempting other problems such as slow growth rate, poor income status of farmers and lack of knowledge on fish varieties suitable for short seasonal farm ponds. Therefore, the fish production per unit area is to be achieved by the moderate stocking density with realizing the production of 4 to 10 tones/ha/yr to meet the requirement fish consumption for the growing human population with the available natural resources.

The fish production has to increase to satisfy the growing demand, extending the area under aquaculture is also now constrained by the limited availability of land and water resources. Therefore, the farm ponds are to be selected with available resources to maximize the production. Suitable water bodies namely ponds, seasonal tanks, canals, lagoons and reservoirs, brackish water areas especially low saline waters. Pangasius fish can be cultured in ponds, seasonal tanks/ponds, abandoned shrimp ponds, fish pens/cages, canals, reservoirs and other deep landlocked water bodies. This technology make possible to get maximum fish production from farm pond through utilization of available fish food organisms in all the natural niches and supplemented by artificial feeding.

Plan, Implementation and Support (KVK Intervention):

Krishi Vigyan Kendra (KVK), Kancheepuram has taken various measures to increase the unit fish production per hectare with limited availability of land and water resources in the Kancheepuram district through the following KVK mandatory programmes in collaboration with State Department of Fisheries during the recent years.

Table 2: Programme of Plan, Implementation and Support to the farmers by KVK, Kattupakkam

Name of the programme	No of intervention
Critical inputs - Pangasius catfish fingerlings issued	10,500
FLD (0.7 Ha in 7 Demos)	1
Training programme (On-campus & Off-campus)	10
Awareness programme	4
Advisory services	1579
Scientist visit in the farmer’s field	57
Technology disseminated in monthly magazine/Pamphlets	5
Broadcasting of short message services to farmers	7
Brief Radio talk	1
Guest lectures	5
Other extension programme	17

Output:

Farmer teacher of 7 Nos were developed to handle training classes on the significance of Pangasius catfish culture technology practices in short seasonal farm ponds and other water bodies have known in the Table – 3.

Table 3: List of farmer teacher developed in Kancheepuram district

Sl.No	Name of the farmer	Specialised areas	Contact Mobile No
1	Th.G.Ravikumar, Kavanurpudhuchery village	Pangasius catfish culture methods	9626125987
2	Th.R.Gunasekaran, Senneri village	Pangasius catfish culture methods	9445888512
3	Th.S.Sagadevan, Puthinathottam village	Pangasius catfish culture methods	9787270199
4	Th.K.Agilan, Thiruvanaikoil village	Pangasius catfish culture methods	9442154111
5	Th.J.Thiruvengadam, Kamsalapuram village	Pangasius catfish culture methods	9843729166
6	Th.Rathinarajasingam, Navallurnatham	Pangasius catfish culture methods	9884000413
7	Th.E.Harikumar, Nelvoy village	Pangasius catfish culture methods	8098894771

The average Pangasius catfish culture production/yield, growth and economical impact recorded from different farmers in Kancheepuram district about Pangasius catfish has cultivated in the farm ponds and given in the Table – 4.

Table 4: Average fish yield and economic parameters recorded in demo plot from Kancheepuram district during 2017-18

Parameters	Check	Demo
Fish Yield (kg/ha)	3920.4	5153.7
Average growth of fish (kg/fish)	0.36	0.41
Survival (%)	72.6	83.8
Gross cost Rs.	131557	172612
Gross return Rs.	196020	360759
Net return Rs.	64463	188147
BCR	1.49	2.09

Farmers Feedback: Culturing of Pangasius catfish in farm ponds has aided to obtain average higher fish yield of 5153.7 kg/ha. It is a simple and viable practice of fish culture and also harvested fishes fetched for the higher market price of Rs.70/kg

Outcome:

After implementation of KVK's various activities especially demonstration, awareness programme, training, advisory services, guest lecture, issuing of pamphlets and field visits the adoption of composite fish culture method in ponds is given in the Table – 5.

Table 5: For adoption level of freshwater fish culture in ponds - funds released under CSS and CS Schemes on Department of Fisheries in Tamil Nadu during 12th Plan

(Rs. in lakhs)

Name of Schemes	Funds released during 12th Plan		
	2012-13	2013-14	2014-15
Development of Inland Fisheries & Aquaculture	50.00	0.00	0.00

Development of Marine Fisheries, Infrastructure & Post Harvest Operations.	800.00	1909.87	2043.50
National Scheme of Welfare of Fishermen.	186.77	450.00	1850.44
Strengthening of Database & Geographic Information System of Fisheries Sector.	0.00	0.00	0.00
National Fisheries Development Board (NFDB)	1756.58	900.87	1226.06

(Source: Report of Department of Animal Husbandry, Dairying and Fisheries, 2015-16)

Impact:

KVK involvement had lead to effective improvement in culturing Pangasius catfish culture in farm ponds among the fish cultivating farmers in the Kancheepuram district. Presently, there is about more than 100 active fish farmers doing fish culture spreading throughout the district. Further, now most of the agricultural farmers fascinated towards fish culture activity as one of the integrated farm component.

Success Story – 12

Demonstration of Masi dry fish preparation through low cost smoking kiln
Situation analysis/Problem statement:

Fish is the most nutritious food and it is particularly valued for its protein which is of high quality compared to other meat and egg. It is highly perishable products and the spoilage of fish makes fish to be undesirable for human consumption due to changes in its sensory and nutritional characteristics. Therefore, it has become increasingly important to ensure that fish once caught is fully and efficiently utilized to avoid deterioration. Thus, the processing and preservation of fresh fish becomes imperative in order to maintain product quality, reduce wastage and prevent economic losses. To prolong the shelf life of fish, it is preserved by many processes including sun drying, solar drying, canning and smoking among others. Preservation of fish therefore generally slows down spoilage. Preservation methods are applied with an intention of making the fish safer and extending its shelf life. Dried fish is a major component of harvested fisheries in many countries including India (Food and Agricultural Organization, FAO, 2006). About 25 to 30% of the world fish catch is consumed in the dried, salted, smoked form or combination of these processes. Some of these processes, though important for preservation, have various effects on the physical and nutritional quality of fish because it has been observed that different processing and drying methods have different effects on the nutritional compositions of fish.

Smoking and effective drying of fish products can help to reduce such losses and waste. The smoking of fish is done under low cost smoking kiln, which is the most useful and viable technology developed by Tamil Nadu Dr.J.Jayalalithaa Fisheries University (TNJFU) has greatly enhanced among fish operators' livelihoods in various coastal district of Tamil Nadu where is doing fish value added products. Among fish value added products, smoked fish and fish products are playing an important role than others. Masi dry fish which is a smoked fish product prepared from tuna fish meat has great potential in local as well as export market. In India every year tuna fish species is alone report ed approximately 45,000 metric tonnes. Among tuna varieties *Euthynnus affinis* (little tuna) has contributing major shares, which is calculated nearly 16,000 metric tonnes, while others species like yellowfin tuna (*Thunnus albacares*), skipjack tuna (*Katsuwonus pelamis*) and frigate tuna or frigate mackerel *Auxis thazard* are accounted in considerable quantities. In Tamil Nadu, the tuna fishes are documented more than 2500 metric tonnes in marine capture fisheries statistics in every year. It has higher protein content (23.27%) among fishes. It has higher level of red colour meat in its muscle

portion, which contains major level of myogloin protein is responsible for the red colour meat. Therefore, it is most suitable to prepare masi dry among the fish varieties. Moreover, our country is sharing approximately 5% of total fish catching of the World particularly for tuna fish. Many of the residents of small fishermen village are subsistence fishers whose livelihoods depend on fishing and fish preservation. The Kanchipuram District is rich in fish resources. Potential for exploitation of marine fisheries in the District is high with the coastal line of 87.2 Km and it has 44 number of marine fishing village covered in 4 blocks. But, most of marine fishing villages are remote locations do not have proper/sufficient access to electricity or cold storage facilities and as a result, spoilage often occur after capture and during storage prior to consumption. With this background 2 self help groups of fisherwomen were formed and demonstrated the masi dry preparation in hygienically and effectively. Therefore, it was aimed to introduce and trial a new cost effective method of fish smoking and drying which will reduce post-harvest losses, add value to the finished product and increase its shelf life, facilitate easy transportation, to maintain a consistent supply based on demand, to reduce post-harvest losses and to increased variety of textures and flavors, resulting in a greater choice for consumers and thereby the livelihood of the fishers may be altered and improved.

Plan, Implementation and Support (KVK Intervention):

Krishi Vigyan Kendra (KVK), Kancheepuram has put many efforts to uplift of the poor fishers and providing an opportunity and alternative to improve their livelihood supports with the limited availability of marine resources in the Kancheepuram district through the following KVK mandatory programmes in collaboration with State Department of Fisheries and ICAR - Central Institute of Brackishwater Aquaculture (CIBA), Chennai during the recent years.

Table 1: various programme of Plan, Implementation and Support to the fisher-folks by KVK, Kattupakkam

Name of the programme	No of intervention
Critical inputs – Low cost smoking kiln (with Tuna fish meat and demonstration materials)	2
FLD in 2 Demos (2 SHGs with 27 Nos)	1
Training programme (On-campus & Off-campus)	2
Awareness programme	4
Advisory services	1579
Scientist visit in the farmer's field	58
Technology disseminated in monthly magazine	1
Broadcasting of short message services to farmers	2
Brief Radio talk	1
Guest lectures	3
Other extension programme	10

Output:

Farmer teacher of 2 SHGs (with 27 Nos) in fish value addition among fishers were developed to handle training classes on the significance of Masi dry fish preparation under low cost smoking kiln technology practices in various sizes of Tuna fish varieties have known in the Table – 2.

Table 2: List of farmer teacher in fish value addition among fishers developed in Kancheepuram district

Sl.No	Name of the fishers	Specialised areas	Contact Mobile No
1	Tmt.G.Kalpana, (Leader of SHGs) Semmencherikuppam village	Masi dry fish preparation	8056269715
2	Tmt.P.Anjalatchi, (Leader of SHGs)	Masi dry fish preparation	9159699693

	Pudupattinam village, Kalpakkam		

The average production/yield of masi dry fish product, quality parameters and economical impact recorded from different fisher-folks in Kancheepuram district about masi dry fish preparation has done with various marine fishing and given in the Table – 3.

Table 3: Average yield of masi dry fish product, other parameter and economic parameters recorded in various demo plots from Kancheepuram district during 2017-18

Parameters	Check	Demo
Yield (% per kg of tuna fish)	16.5	20
Quality parameter	Light brown colour	Dark brown colour
Gross cost Rs.	160	190
Gross return Rs.	200	300
Net return Rs.	40	110
BCR	1.25	1.58

Fisher-folks Feedback: has aided to get in average higher dry fish yield of 20% per kg of tuna fish. It is a simple and viable method in preparation of masi dry fish than higher cost of mechanical dryer and other sophisticated tunnel dryer. The yielded smoked fish value added product of masi dry fish was sold for the higher market price of Rs.300/kg

Outcome:

After implementation of various activities of KVK, Kattupakkam especially demonstration, awareness programme, guest lecture, training, issuing of pamphlets, advisory services and field visits the adoption of an unique fish value added product of masi dry fish preparation under low cost smoking kiln in Tamil Nadu including Kancheepuram district is given in the Table – 4.

Table 4: For adoption level in fish value added products among fisher-folks of Tamil Nadu including Kancheepuram district - funds released under Central & State Government Sponsored and Central Government Sponsored Schemes on Department of Fisheries during 12th Plan

Name of schemes	Funds released during 12th Plan (Rs. in lakhs)		
	2012-13	2013-14	2014-15
National Fisheries Development Board (NFDB)	1756.58	900.87	1226.06
Development of Marine Fisheries, Infrastructure & Post Harvest Operations	800.00	1909.87	2043.50
National Scheme of Welfare of Fishermen	186.77	450.00	1850.44

(Source: Report of Department of Animal Husbandry, Dairying and Fisheries, 2015-16)

Impact:

KVK contribution had directed to effective improvement in preparation of fish value added products especially masi dry fish among the fishers of the Kancheepuram district.Presently, there is about more than 50 active fisher-folks involving preparation of dry fish and other products in the district. Further, now most of the agricultural value added producers were motivated/showing interest towards fish value added products as one of the component in the recent year.

15. B. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year : NIL

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Dairy	Betel leaf and pepper mixed with cocount oil	To cure Indigestion
2	Dairy and Goat	Leaves of the pomegranate or tender sapota	To cure Diarrhoea
3	Dairy and Goat	Sesame oil, lard and banana are mixed thoroughly and fed orally to cattle for the treatment of FMD.	To cure FMD wounds
4	Dairy and Goat	Jaggery, garlic and ginger are mixed with domestic grinder. This power id mixed with sufficient quantity of water.	To cure Bloat condition
5	Dairy, Goat and Poultry	Egg and black gram (*Vigna mungo*) are ground and applied in the fractured place and bamboo stick is tied around the fractured bone.	To cure bone fracture
6	Paddy	Spraying of cow dung slurry	To manage ear head bug attack
7	Citrus	Leaves of calotropis 5 kg + tamarind leaves 5 kg + jaggery 1 kg are mixed in cow urine, kept for a week and sprayed over the trees	To control citrus canker
8	Agricultural crops	Multigrain sowing practices	Soil fertility enhancement

16. IMPACT

16.A. 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)
Demonstration of mineral mixture as nutritional support in low yielding dairy animals.	378	60	4500	7350
Demonstration of mineral blocks as nutritional supplement in low yielding grazing dairy animals	338	44	30000	50000
Assessment of mastiguard efficacy in clean milk production	150 (46)	31	6300	8400

Demonstration of package of practices to prevent chick mortality in Japanese Quail farming	50	36	3500	10500
Composite fish culture technology	112	46.6	130413	303800
Demonstration of Jayanti Rohu in integrated fish farm	5	15	80548	152783
Demonstration of GIFT Tilapia in farm ponds	5	10	25954	136421
Demonstration of striped catfish *Pangasianodon hypophthalmus* in farm ponds	5	12	56347	188422
Demonstration of Indian major carps culture in integrated ponds using stunted fingerlings	5	13	52073	145233
Demonstration of Integrated Pest management in Cucurbits	85	23	38600/acre	62160/acre
Demonstration of paneer using herbs and spices	10	10	2750/10kg	3500/10kg
Demonstration of nutrient retention of millets using parboiling unit	10	25	400/10kg	1000/10kg
Demonstration of TKM-13 variety	15	22	42,000	63,250

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

16.B. Cases of large scale adoption
(Please furnish detailed information for each case) - Nil

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

Sl No.	Type of Farm Unit	Name and Address of the Farmer	Farm Size (No. of Animals / Birds)	Contact No.	Taluk	PIN Code
1.	Poultry Unit	G,Ramesh, Melkondaiyur	80 Nos	9047689341	Tiruvallur	602 024
2.	Poultry Unit	V. Janardhanan	250 Nos	9865848595	Madhurandagam	603 319
3.	Poultry Unit	T. Rajesh	100 Nos	8682938814	Tirukalukundram	-
4.	Poultry Unit	K.Vivek	80 Nos	9585110467	Madhurandagam	603 111
5.	Poultry Unit	S.Jones Maraimalai .Nagar	500 Nos	9943754263	Chengalpattu	603 203
6.	Fish Pond	S.Sagadevan Pudhiyanatham	0.1 ha 1000 No	9787270199	Madhurandagam	603 309
7.	Sheep & Quail	M.Sarfraz Ali Pallavarram	Sheep 55 Quail 100	9884248948	-	600 043
8.	Poultry & Quail	Prasanthkumar Vazhaipattu	Poultry 200 Quail 300	9500428565	Madhranthagam	603 302
9.	Poultry	Karunakaran	Poultry 1500	9677257450	Kattankolathur	603 302

10.	Fish Pond	T.Jegan Kaliyapettai	0.08 ha (800 No of fishes)	9626269807	Chengalpattu	603 106
11.	Dairy	M.Kumaresan, Sivankoodal	15	9982627161	Sriperumbadur	602 108
12.	Poultry	R.Nagarajan, Koothiramedu	300	9976195368	Kancheepuram	631551
13.	Poultry	P.Parthiban, Keeranallur	300	9677757030	Sriperumbadur	602 108
14.	Poultry	E.Natarajan, Medavakkam	100	9841225759	Tambaram	600 100
15.	Jam Preparation	P.Geetha Kovilampakkam Chennai -17	30Kg./ Months	7871702109	Chitlapakkam	600 117
16.	Dairy	M.Kumaresan, Sivankoodal, Sriperumbadur	15	9982627161	Sriperumbadur	602 108
17.	Poultry	R.Nagarajan, Koothiramedu	300	9976195368	Kancheepuram	631551
18.	Poultry	P.Parthiban, Keeranallur	300	9677757030	Sriperumbadur	602 108
19.	Poultry	E.Natarajan, Medavakkam	100	9841225759	Tambaram	600 100
20.	Jam Preparation	P.Geetha Kovilampakkam Chennai -17	30Kg./ Months	7871702109	Chitlapakkam	600 117
21.	Nutrimix	Mrs.Anuradha, 33/6. Pavenderstreet, maraimalianagar	100kg/month	9840341950	Kattankulatur	603 203
22.	Idli masala powder	Mrs.Jayachitra, Devi prasanthinagar, Kattankulatur	50kg/month	9790836709	Kattankulatur	603 203
23.	Poultry farm	Mr. N.Vinoth, Panruti	100 nos	9710575984	Sriperumbadur	603 203
24.	Poultry farm	Mr. S.Pandiyan, Ullavoor	100 nos	9443108634	Kancheepuram	603 203
25.	Dairy farm	Mr.S.Ravichandran, Acharapakkam	5 nos	9884611362	Maduranthagam	603 203
26.	Poultry	Th.K.Bharathirajan Kavanipakkam	400	9841372092	Kancheepuram	603 107
27.	Goat	Th.V.Venkateswaran Kalpakkam	15	9626884588	Thirukalukundram	603 102
28.	Quail	Th. Anandaraj	100		Kattankulathur	
29.	Goat	Th. J. Prabhakar Chengalpattu	20	9976459987	Chengalpattu	603 003
30.	Squashes	Mrs.V.Malar Chennai	100lt/month	9884550172	Chennai	600 037
31.	Paneer	Mrs.Radha	60kg/month	9884611362	Acharapakkam	

		Acharapakkam				
32.	Rabbit farm	Th.K. Anupkumar Chennai	10	9884253832	Chennai	
33.	Goat Farm	Th.U.Chandru Polambakkam	100	9445611030	Chengalpattu	603 309
34.	Buffalo farm	Th.JH.Paramaguru Palur	5	9976469974	Chengalpattu	603 101
35.	Millets & Rice murukku	Tmt. J.Revathi M.M.Nagar	50 Kg	7401538443	Chengalpattu	603202
36.	Goat	Tmt. Radha, Uthiramerur	10	7868005462	Uthiramerur	603 209
37.	Dairy	Th.S.Ramakrishnan, Keezh	10	7667830675	Kancheepuram	631 551
38.	Goat	Th.Thirukumaran,Thandalam	30	7667830675	Cheyyur	603 301
39.	Dairy	Th. G.Vinoth,Kavithandalam	30	9751568642	Uthiramerur	603 209
40.	Dairy	Th. R.Dineshkumar Hasthinapuram	20	9003129098	Tambaram	600 064
41.	Goat	Th.V. Venkatmani,Kalpakkam	10	9626884588	Thirukalu kundram	603 102
42.	Fish	Tmt. Indumathi Chennai	0.1 ha fish 1000 Nos	9884729815	Uthirameruur	603 406
43.	Poultry farm	Th. R.Ravi Kurumbarai		9786855366	Cheyyur	603 309
44.	Goat farm	Th.K.Kadhar Vedanthangal		9159931972	Madhuranthagam	603 306
45.	Dairy & Goat farm	Th.D.Gothandan Umaiyalparnachery		9952003688	Sriperumpudur	603 301
46.	Quail farm	Tmt.P.Sasikala Karunkuzli		900305106	Madhuranthagam	603 306
47.	Goat farm	Th.T.Charles K.K.Pudhur		7639588655	Madhuranthagam	603 303
48.	Poultry farm	Tmt.AGayathri Nandhivaram		9004451480	Kattankolathur	603 302
49.	Quail farm	Th.G. Munusamy Selaiyur	200 Nos.	7401099376	Tambaram	600 073
50.	Goat farm	Th.Palani Perunkudi	20 Nos	9789079274	Tambaram	600 096
51.	Poultry farm	Tmt. S.Subbulakshmi Mambakkam	50 Nos	8056178292	Chengalpattu	600 116
52.	Dairy farm	Th. M.R.Saravanan Perungalathur	12	8056100309	Tambaram	600 098
53.	Poultry farm	Th. M.Pavithran Kattankolathur	75	8086115387	Kattankolathur	603 203

54.	Pig farm	Th. Prabhakaran Ayyapakkam	30	9840495854	Kattankolathur	600 077
55.	Poultry farm	Th.T.S.Gopi Ninnakarai	150	988448130	Kattankolathur	603 203
56.	Poultry farm	Tmt.K. Kavitha Madhuranthagam	200	9444542403	Madhuranthagam	603 303
57.	Fish pond	Th.Manimaran Vellore	0.02 ha 200 no of carps	8056549012	Walajapet	632 501
58.	Fish pond	Th.V.Suresh Cuddalure		9840048326	Kattumannarkoil	608 701
59.	Goat	Th. B.Senthilkumar West Tambaram	40	9841072377	Chitlapakkam	600045
60.	Goat	Th.G.Nagaraj Maraimalai Nagar	20	9840689900	Chengalpattu	603209
61.	Poultry	Tmt. S.Indhumathi Melpakkam	200	9884729815	Chengalpattu	603 203
62.	Goat	Th. A.Shanmugam Sempedu	100	9789729924	Thirukalukundram	603 107
63.	Goat	Th.P.M.Anil Kamarajapuram	40	9841089997	Chitlapakkam	602 070
64.	Fish pond	Th.R.Karthikeyan Kovilanpakkam Chennai -117	0.17 ha 2000 Nos of carps fishes	9445379961	Tambaram	600 117

17. LINKAGES

17.A. Functional linkage with different organizations

Name of organization	Nature of linkage
State Department of Animal Husbandry	Participation in meetings, conducting training programmes, demonstration, etc.
State Department of Agriculture	
State Department of Horticulture	
State Department of Fisheries	
KTDCMPU, Chennai	
State Department of Agricultural Engineering	
National Seeds Corporation	For implementing FLD programme /Seed hub project
Tamil Nadu Fisheries Development Corporation	For conducting training programmes and demonstration
State Institute for Rural Development (SIRD)	
DRDA, Kancheepuram	
Women Development Corporation, Chennai	
Marine Products Export Development Authority (MPEDA), Cochin	
State Bank of India, Chennai Division	
Zonal Research Centre, TNAU,Coimbatore	For supply of critical inputs and farm implements for demonstrations
TNAU, Coimbatore	
Central Institute of Agrl. Engg., Coimbatore.	
Ministry of food processing Industries	For conducting training and demonstrations
Tamil Nadu Dr.J.Jayalalithaa Fisheries University, Nagapattinam	

NABARD, Chennai	
National Horticulture Board	
Central Institute of Brackish water Aquaculture, Chennai	
Non-Governmental Organizations	
Nehru Yuva Kendra, Sriperumpudur	For conducting training and demonstrations/Exhibition
DHAN Foundation, Chengalpattu	
Unorganised Workers Federation, Chennai	
National Fisheries Development Board (NFDB), Hyderabad	
Hand in Hand, Kancheepuram	

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
State Poultry Development Scheme	October and November 2017	Animal Husbandry Department, Tamil Nadu	61,800
Farmers Orientation workshop	September 2017 and February 2018	TNLDA , TN	1,00,000

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