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

1. GENERAL INFORMATION ABOUT THE KVK

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

Name of the KVK as per official records (MoU)	:	KVK, Salem
Address	:	Krishi Vigyan Kendra Mallur (Via) Sandhiyur 636 203 Salem District TamilNadu
Phone No.	:	0427- 2422550
Fax No.	:	0427 -2422269
Email	:	kvkmallur@tnau.ac.in

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

Name of the Host Organization	:	TamilNadu Agricultural University, Coimbatore - 3
Status of the Host Organization (As per the MoU)	:	State Government University – [AU]
Address	:	The Registrar TamilNadu Agricultural University Coimbatore - 641003 Tamilnadu
Phone No.	:	0422 -6611201
Fax No.	:	0422- 2431821
Name of the Chairperson	:	Dr.A.S.Krishnamoorthy, Ph.D.,
Phone No.	:	0422 -6611201
Mobile No.	:	-
Email	:	registrar@tnau.ac.in

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

Name of the Programme Coordinator / SS&H	:	Dr.M.Vijayakumar
Residential Address	:	9th cross street, 52/4A Water board colony, Alagapuram, Salem 16
Phone No.	:	-
Mobile No.	:	9578590617
Email	:	mvijayakumar75@gmail.com

1.4. Year of sanction of the KVK (as per Official Order): 1994

1.5. Month and year of establishment: March, 1994

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

S. No.	Item	Area (ha)
1	Under Buildings	1.95
2.	Under Demonstration Units	1.0
3.	Under Crops	4.0
4.	Orchard/Agro-forestry	3.0
5.	Others (specify)	-
	Total	

1.6. Infrastructural Development:

A) Buildings

S.No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction Completed/ in progress/ to be initiated)
1.	Administrative Building	ICAR	4/1/2006	467	3384000			
2.	Farmers Hostel	ICAR	4/1/2008	300	3055000			
3.	Staff Quarters (No.)	ICAR	4/1/2008	398	3600000			
4.	Demonstration Units	ICAR	4/1/2008	600	250000			
		ICAR	12/2019	16	65,000	-	-	-
		ICAR	12/2019	19	21,000	-	-	-
5	Fencing	ICAR	3/2020	883	20,000			
6	Rain Water harvesting system							
7	Threshing floor							
8	Farm godown	ICAR – seed hub – Seed processing unit and platform	12/2019	90	50,00,000	-	-	-
9	Shed (Farm equipment)							
10.	**Demonstration units under TSP**		-	-	-			
	Slatted floor sheep unit	ICAR – TSP			1,75,000		225 sq.ft	In progress
	Hydroponic fodder production unit	ICAR - TSP			65,000		1 No.	In progress
	Bio gas unit	ICAR - TSP			40,000		2 c.ft	In progress

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms covered as on 31.12.2020	Present status
Four Wheeler - Mahindra Bolero	05/28/ 2010	487924	242498	Running
Four Wheeler - Tractor with Trailer	04/01/ 1996	218100	187 hrs	Condemned, New tractor purchased
Four Wheeler - Power Tiller	04/01/ 2010	150000	0	Running
Two Wheeler - TVS Motor Star City	10/17/ 2005	39150	35276	Running
Two Wheeler - Honda Activa	04/01/ 2009	45491	44577	Running

C**) Equipment & AV aids**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Spectrophotometer	12/31/2004	80172	Good Condition
Flame Photometer	1/27/2004	36720	Good Condition
pH Meter	12/31/2004	84440	Good Condition
Conductivity Bridge	12/31/2004	8441	Good Condition
Chemical Balance	4/1/2004	119600	Good Condition
Water Distillation Still	12/31/2004	27851	Good Condition
Kjeldahl digestion and distillation	4/1/2004	172675	Good Condition
Shaker	12/31/2004	44094	Good Condition
Refrigerator	12/27/2004	19500	Good Condition
Oven	12/31/2004	8845	Good Condition
Hot Plate	12/31/2004	1872	Good Condition
Grinder (Willey Mill)	12/31/2004	11582	Good Condition
Ahuja amplifier	4/1/1995	3415	Good Condition
Ergonomically designed student chair	4/1/1995	65000	Good Condition
PHDF Laboratory set up	4/1/2010	490000	Good Condition
PHDF Entomology component	4/1/2010	168500	Good Condition
PHDF Pathology components	4/1/2010	171000	Good Condition
PHDF Horticultural components	4/1/2010	114000	Good Condition
PHDF Seed health components	4/1/2010	56500	Good Condition
Biometric Attendance System	10/1/2017	10076	Good Condition
Nikon Camera DSLR D5300	31/1/2017	42500	Good Condition
Ahuja WA620 Portable P.A System	27/1/2017	18000	Good Condition
CCTV Security System	30/1/2017	35000	Good Condition
CCTV Security System	28/3/2017	6600	Good Condition
Microtek UPS 1500 VA	1/2/2017	6900	Good Condition
Network of Systems	1/2/2017	10130	Good Condition
Exide Batteries 12V 7AH	8/2/2017	12800	Good Condition
Exide Batteries 12V1 2AH	31/3/2017	27040	Good Condition
Microtek 900 VA 100 AH Battery	31/3/2017	15250	Good Condition
HD LED TV 40” & 32”	31/3/2017	50000	Good Condition

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

S.No.	Date	No of Participants	Salient Recommendations
1.	27.01.2021 (18th SAC)	44	Attached

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

Suggestions and recommendations of the SAC and Action Taken on the Recommendations

S.No.	Suggestions/Recommendations	Suggested by (SAC Member)	Action Taken on the Recommendations
1.	Resource Persons from KVK may be deputed for training on "Value addition in minor millets and livestock products" to FPOs	Th. S. Aruna, ADA, State Marketing and Training Centre-Agriculture, Salem	Resource persons will be deputed in trainings on value addition in minor millets and livestock products
2.	Sensitizing Programme on "Recent government schemes" to farmers may be given in KVK trainings	V. Sri Rajeshwar, Asst. Engineer (industries), DIC, Salem	Updated state and central schemes will be explained as a part of every training programmes of KVK.
3.	Training on Value addition in Cassava to farmers may be given and proposal may be submitted for Capacity Building training Programme on "Value addition in Cassava"	Prof. and Head, TCRS, Yethapur, Manager, NABARD, PA (Agri.) to Collector, Salem and Asst. Engineer, District Industrial Centre, Salem)	NABARD CAT proposals will be submitted in 2021 -22 to conduct trainings to the farmers.
4.	Awareness Programme and exhibition on "Farm Machineries" to farmers may be conducted	JDA, Salem and Dept. of Agrl. Engineering, Salem	Exhibition cum awareness will be conducted incoordination with Dept. of Agrl. Engineering, Salem.
5.	Demonstration on "ICM in castor" and "Cassava Booster" may be conducted	Dr.M. Jawaharlal, DEE, TNAU, Coimbatore and Prof. and Head, TCRS, Yethapur	FLD is proposed for castor and cassava booster.
6.	Training for "Maintenance of Drip irrigation structures" to farmers may be conducted	PA (Agri.) to Collector, Salem	Training on Maintenance of Drip irrigation structures in collaboration with Dept. of Agriculture and Horticulture. as per the proposed action plan 2021 – 22.
7.	Training on "Stress Management" to extension officials may be given	PA (Agri.) to Collector, Salem	Training on "Stress Management" as per the proposed action plan 2021 – 22.

8.	Proposal for new sales outlet may be submitted	Dr.M. Jawaharlal, DEE, TNAU, Coimbatore	Proposal will be submitted
9.	Training on "Value addition in Annona" to farmers may be given	Agrl. Officer (Forestry), Salem.	Training on "Value addition in Annona" at Karumanthurai in collaboration with Dept. of Forestry will be conducted as per the proposed action plan 2021 – 22 in
10	Demonstration on "Wildlife Management through repellant along with ABD consortium" may be conducted	Dr.M. Jawaharlal, DEE, TNAU, Coimbatore JDA, Salem, Assoc. Prof. and head, HRS, Yercaud and Agrl. Officer (Forestry), Salem	FLD on "Wildlife Management through repellant Herboliv " in Yercaud and Karumanthurai as per the proposed action plan 2021 – 22.
11	Training on "Off season flowering technology in flower crops and Medicinal Plants cultivation" may be conducted	Dr.M. Jawaharlal, DEE, TNAU, Coimbatore and ADA, Panamarathupatti and ADH, Panamarathupatti.	Training programme will be conducted at Ayothiyapattinam and Panamarathupatti block as per the proposed action plan 2021 – 22 at
12	Establishment of Minor millet demo plot at KVK may be done	ADA, Panamarathupatti	Minor millet demo plot will be established
13	Training on "Scientific Goat farming and desi poultry farming" should be given to rural women/people	Dr.S.Ragupathi, Clinician, Veterinary polyclinic, Salem and Mrs. Jayanthi, Ammapalayam	On campus Training on "Goat and desi poultry rearing" will be conducted for rural farm women.
14	Training on "Seed Production Technology" for FPOs and Promotion of Seed Production for TNAU and traditional varieties by farmers may be taken up	Seed Inspector, Salem, Dr. Baskaran, ATARI, Hyderabad and Mr. Chelladurai, SCOC, Salem	On campus and off campus training will be conducted on "Seed Production Technology" for FPOs .
15	Use of TANUVAS mineral mixture by farmers should be promoted. Fodder seed production and use of fodder seeds by farmers should be promoted	Asst. Professor and Head, VUTRC, Salem, TANUVAS,	Use of TANUVAS mineral mixture and fodder seeds will be promoted through trainings and demonstrations
16	Training on "Virus Diseases Management in Pandal vegetables" may be conducted	Mr. Raja, Puthur	FLD and training programmes on IPDM in Pandal vegetables is proposed to conduct in Veerapandi block.

17	Training on Mass production of *Trichoderma viridae* to farmers may be conducted	Mr. Jeganathan, Omalur	On campus and off campus training on "Mass production of *Trichoderma viridae*" will be conducted as per the proposed action plan 2021 – 22.
18	Training on "Mushroom cultivation and Bee Keeping and Collective farming" to youths and members of Jarugumalai FPO may be conducted	JDA, Salem and AO, ATMA and CEO, FPO, Jarugumalai	On campus training on Mushroom cultivation and Bee keeping will be conducted rural youth and members of Jarugumalai FPO
19	Training and demonstration for "Promotion of Multilayer cultivation" may be conducted	Assoc. Prof. and head, HRS, Yercaud	Off campus training on "Promotion of Multilayer cultivation" will be conducted at Arangam village of Yercaud block as per the proposed action plan 2021 – 22.
20	Training on "Disaster Management" may be conducted	JDA, Salem	Training on "Disaster Management" will be conducted during 2021 – 22.
21	FFS on Maize with special emphasize on FAW management may be conducted	JDA, Salem	FFS on maize will be conducted at Vazhapadi block as per the proposed action plan 2021 – 22.
22	Soil testing and improvement of soil fertility in KVK farm may be done.	Dr. Baskaran, ATARI, Hyderabad	Soil samples will be collected, analyzed and improved accordingly.

List of Participants

S. No	Name of the SAC members	Designation
1	Dr. M.Jawaharlal, Ph.D.,	Director of Extension Education, TNAU, CBE
2	Dr.A.Bhaskaran	Principal Scientist, ATARI, Hyderabad
3	Th. K.Ganesan	Deputy Director of Horticulture, Salem (i/c)
4	V. A. Sathiyamurthy	Associate Professor and Head, HRS, Yercaud
5	K. Govindan	Asst. Prof. Entomology, RRS, Paiyur
6	S. Thavamani	AO, FTC, Salem
7	Dr. D. Jayanthi	Asst. Professor and Head, VUTRC, Salem
8	V. Haritha	Seed Inspector, Dept. Seed inspection office, Salem
9	P. Prabhakaran	ADH, Tharamangalam, Salem
10	Tmt. S. Selvamani	PA to Agri District Collector, Salem

11	Th. J. Govindarajan	Asst. Executive Engineer, Salem
12	Th. D. Selvakumar	General Manager, DIC, Salem
13	Th. S. Aruna	ADA, TNSAMP Training Centre, Salem
14	Th.V. Krishnamoorthy	JDA (Training), TNSAMB, Salem
15	V. Sri Rajeshwari	Asst. Engineer (industries), DIC, Salem
16	Mr. T. Chelladurai	Seed Certification Officer (Tech.), Salem
17	Th. S. Thangadurai	CEO, Jarugamalai Farmer Producer Company Ltd., Salem
18	Th. T. A. Srinivasan	LDM, Salem
19	Th. A.K. PalanivelRajan	Financial Literacy Councilor, Salem
20	Th. S.Senthilkumar	FPO, Salem
21	Tmt. R. Gayathri	Agri. Officer, Office of DFO, Salem
22	Tmt. A. BhamaBuvaneswari	DDM, NABARD, Salem
23	Dr. S. R. Venkatachalam	Professor and Head, TCRS, Yethapur
24	Dr.S.Ragupathy	Clinician, Veterinary Policlinic, Salem
25	Th.S.Velu	ADA, Panamarathuatti
26	Th. S.Nagarajan	Progressive Farmer, Nadupatti, Kolathur, Salem
27	Th. K.Jagannathan	Progressive Farmer, Karuppur, Salem
28	Th.R. Raja	Progressive Farmer, PuthurAgraharam, Salem
29	Tmt.S.Jayalakshmi	Progressive Farm Women, W/o Shanmugam, Ammapalayam, Salem
30	Tmt.ShanthiSelvakumar	Progressive Farm women, Mallur (Panamarathupatti)
31	Dr.M.Senthilkumar	Assistant Professor, Nodel Officer, DoEE, TNAU, CBE
32	Dr.M.Vijayakumar	Programme Coordinator, KVK, Salem
33	Dr. R. Vijayan	Subject Matter Specialist (SS&T), KVK, Sandhiyur
34	Dr. G. Malathi	Subject Matter Specialist (Hort.), KVK, Sandhiyur
35	Dr. M.Malarkodi	Subject Matter Specialist (SS&AC.), KVK, Sandhiyur
36	Dr.S.Gurunathan	Subject Matter Specialist (Agrl. Econ.), KVK, Sandhiyur
37	Dr. S. SuganyaKanna	Subject Matter Specialist (Plant protection.), KVK, Sandhiyur
38	Dr..P. Kohila	Subject Matter Specialist (V&AS), KVK, Sandhiyur
39	Th. G. Senthilnathan	Programme Assistant (Technical), KVK, Sandhiyur
40	Th. V.Sivaraman	ProgrammeAssistant (Computer), KVK, Sandhiyur
41	Tmt. A. Gayathri	Farm Manager, KVK, Sandhiyur
42	DAMU	Th.S.Prabhaharan, Agromet Observer

43	TNIAMP	Th. N. Rajkumar, Technical Assistant
44	Seed hub Staff	Th. P. Muniraju, Technical Assistant

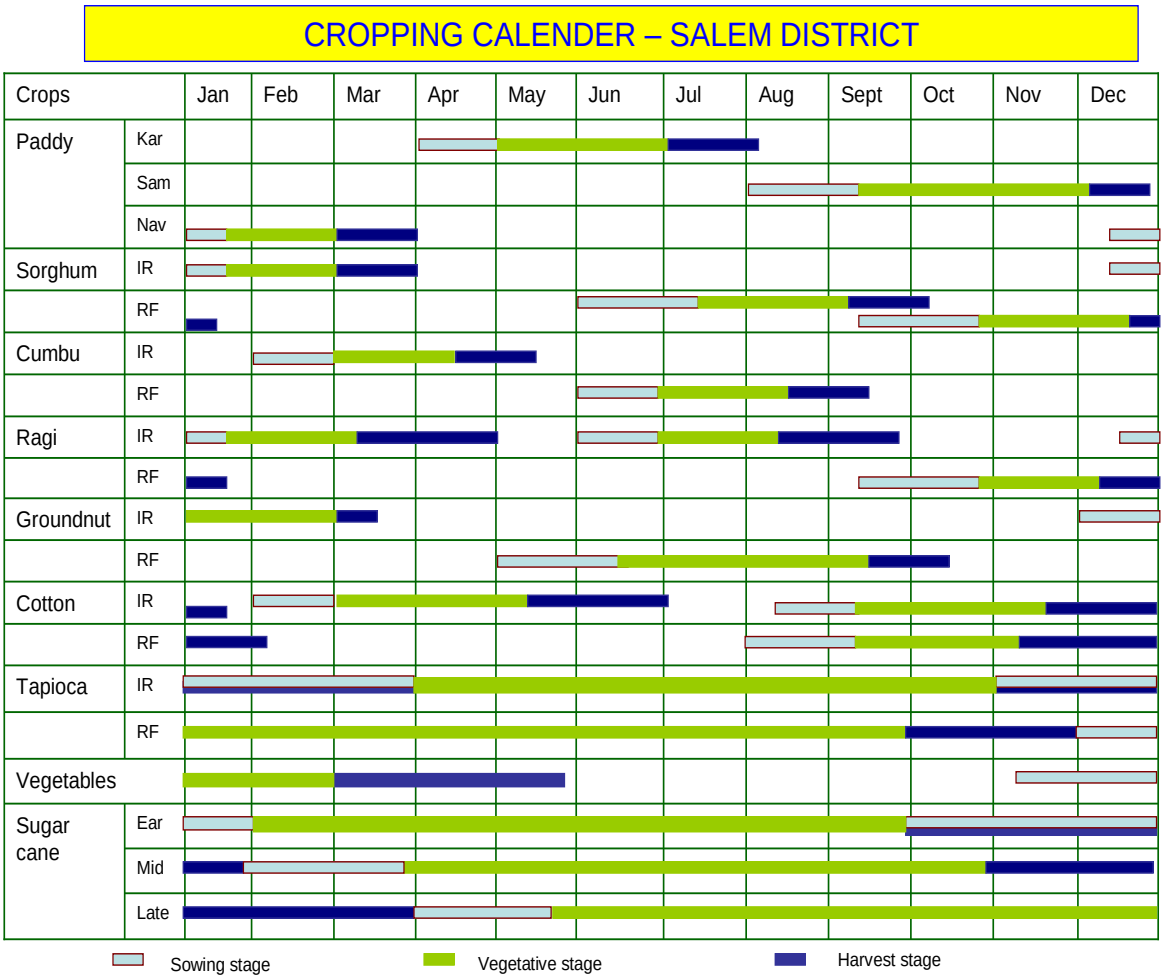
2. DETAILS OF DISTRICT (2020)

2.0.Operational jurisdiction of KVKs

District	New districts governed by the KVK after division of the district, if applicable	Taluks/Tehsils and/or Mandals under the KVKs jurisdiction
Salem	NA	20 blocks

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

S. No	Farming system/enterprise
1	Rice - Pulses - Maize
2	Rice - Sugarcane
3	Rice - Banana
4	Rice - Turmeric
5	Pulses - Tapioca
6	Sorghum - Tapioca
7	Sorghum - Groundnut - Maize
8	Onion - Turmeric
9	Sorghum - Sesame - Pulses



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

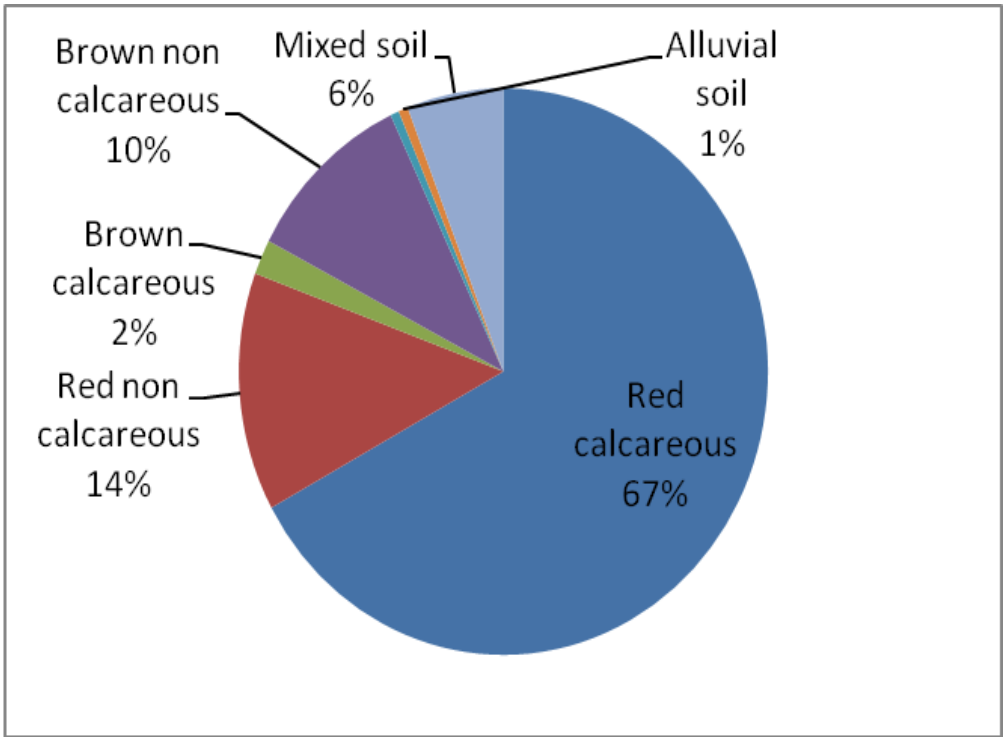
S. No	Agro-climatic Zone	Characteristics
1.	North Western Zone of Tamil Nadu	Salem district is an inland district bounded by Dharmapuri district in the North, Namakkal district in the South, Tiruchirapalli, Vilupuram and Perambalur districts in the East and Erode district in the West. It lies between 11° and 12° North latitude and 77° 40' and 78° 5' East longitude. The total geographical area is 5205 sq.km and the district comprises of seven taluks *viz*., Attur, Mettur, Omalur, Salem, Sankari, Valappady and Yercaud. The mean maximum temperature is 25°C - 42°C and the mean minimum temperature is 19°C - 25°C. The mean annual rainfall is 939 mm of which 47.6 per cent (447 mm) is received during the North East Monsoon, 33.7 per cent (316 mm) during the South West Monsoon, 17.4 per cent (164 mm) during summer and 1.3 per cent (12 mm) during winter. The major source of irrigation is through wells (93%). Of the total geographical area, the net sown area occupies 52.3 per cent

		(2,72,069 ha) and the remaining area is under forest (24.1%), barren and uncultivable land (8%) and land put to non agricultural uses accounts for 9.4 per cent. The North Western Agro-climatic Zone shows considerable diversity in soil types. The major soil types occurring in the zone are 1) Red non-calcareous, 2) Red- Calcareous 3) Alluvial 4) Black soil 5) Hill soil 6) Forest soil 7) Saline/alkali soil. Of these major area comes under red non-calcareous and red calcareous soils. Red /brown non- calcareous soil is predominant in the North-Western Zone occupying 62.6 per cent followed by Red/Brown calcareous soil with 30.5 per cent. Black and alluvial soil contributes a meager of 5.6 and 1.3 per cent respectively. Total area under Salem District in different soil series is 3.47 lakh hectares of which Red Non-Calcareous soil predominant by occupies 66.3% of the area. The next comes the Red calcareous soil type with 29.3 per cent followed by Black (3.8%) and Alluvial deposits (0.6%). The taluks with non-calcareous soil type are Attur, Mettur, Omalur and Salem. Sankari taluk has predominantly occupied with calcareous soil type. Salem district has the highest area (0.72 lakh ha) under saline and alkalinity in the North Western zone of Tamil Nadu.

S. No	Agro ecological situation	Characteristics
1.	Western Ghats (Tamil Nadu uplands) and Deccan Plateau; hot semi arid; red loamy soils; growing period 90-150 days	**Agro-ecological Situation 1 :** (Salem, Mettur, and parts of Omalur Taluks of Salem District) • Lack of improved medium duration ragi varieties suited to seedling transplanting under rainfed conditions. • Lack of heat resistant rainfed varieties in tomato. • Lack of varieties / technology for rainfed banana. • As far as irrigated sorghum is concerned, imbalanced use of fertilizers, non- application of *Azospirillum* along with FYM, incidence of shoot fly earhead bug etc. **Agro-ecological Situation 2** : (Attur taluk of Salem district) • Non-availability of adequate quantities of certified seeds in groundnut due to low multiplication ratio Low plant population due to non-adoption of recommended seed rate/seed treatment. • Incidence of pests and diseases in cotton in both winter and summer seasons. • Non-availability of high yielding drought tolerant rainfed / irrigated tapioca varieties/hybrids with resistance to phoma disease. **Agro-ecological Situation 3 :** (Sankari and parts of Omalur taluk of Salem district) • Non-availability of rice varieties better than IR 20 and Ponni suitable for late samba season with tolerance to brown plant hopper. • High incidence of pests and diseases in long and extra long staple cotton. • Lack of improved medium staple cotton varieties with resistance to stem weevil and whitefly. • Lack of high yielding drought resistant semi spreading and spreading varieties of groundnut. Lack of appropriate agronomic practices for spreading type groundnut variety.

2.3. Soil types

S. No	Soil type	Characteristics	Area in ha
1.	Red calcareous	Moderately deep to Very deep; Loamy skeletal to Fine loamy; moderately slow to rapid permeability; pH 7.4 to 9.0 and medium in water holding capacity (21-50%)	2,47,391
2.	Red non calcareous	Deep soils (51-100 cm); Coarse loamy to fine loamy; moderate to rapid permeability; low water holding capacity (0-20 %); pH 6.6-7.8	50,212
3.	Brown calcareous	Very deep soils (>100 cm); fine loamy; moderately slow permeability; High water holding capacity (> 50 %); pH 7.9-8.4	7,385
4.	Brown non calcareous	Very deep soils (>100 cm); fine loamy to fine; moderately slow to moderately rapid permeability; medium to high water holding capacity (21- 50 %); pH 5.5-6.5	38,267
5.	Black soil	Deep soils (51-100 cm); fine loamy; moderately slow permeability; medium water holding capacity (21- 50 %); pH 8.5-9.0	1,941
6.	Alluvial soil	Very deep soils (>100 cm); fine loamy; Rapid permeability; medium water holding capacity (21- 50 %); pH 7.4-7.8	2,136
7.	Mixed soil	Deep soils (51-100 cm); fine loamy; moderately slow permeability; High water holding capacity (> 50 %); pH 7.9-8.4	21,776



2.4. Area, Production and Productivity of major crops cultivated in the district (or the jurisdiction as the case may be) for 2020

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	Paddy	18656	118300	4.52
2	Sorghum	50349	59562	1.18
3	Ragi	7303	18571	2.54
4	Maize	33447	321124	9.6
5	Minor Millets	1233	3023	1.10
6	Greengram	11984	6688	1.11
7	Blackgram	6567	2654	0.75
8	Horsegram	4140	1654	0.57
9	Groundnut	17550	49107	2.48
10	Cotton	16759	48374	3.63
11	Sugarcane	5747	1222664	100.07
12	FodderSorghum	59378	178136	7.26
13	Mango	6018.12	9448.45	1.57
14	Banana	2321.47	14310.25	32.01
15	Tapioca	11476.90	522543.26	45.53
16	Tomato	5004.70	150641.47	30.10
17	Brinjal	3518.10	112579.20	32
18	Onion	2749.80	29917.82	10.88
19	Turmeric	3290.80	12175.96	3.70
20	Neerium	869.12	9560.32	11.00

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
Jan -20	23.0	30.0	20.0	70
Feb-20	18.9	32.0	20.0	61
Mar-20	39.4	35.3	22.3	51
Apr-20	87.2	37.3	25.3	51
May-20	151.2	38.0	26.2	53
Jun-20	101.2	33.0	25.0	66
Jul-20	90.1	30.0	24.0	77
Aug-20	189.2	31.0	24.0	76
Sep-20	223.2	30.3	22.9	81
Oct-20	309.4	30.0	22.0	79
Nov-20	213.8	28.8	20.0	82
Dec-20	67.3	28.4	18.8	80

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

Category	Population	Production	Productivity/animal
Cattle			
Crossbred	552717	561293 MT	8.5 lit/day
Indigenous	145164	13869 MT	3.2 lit/day
Buffalo	79841	43274 MT	6.0 lit/day
Sheep			
Crossbred	-		
Indigenous	345608	Meat-5661150 kg	18 kg
Goats	449203	Meat-6652420 kg	16 kg
Pigs			
Crossbred	20231	Meat-1257345 kg	60 kg
Indigenous			
Rabbits	2617	Meat-4250 kg	2 kg
Poultry			
Farm and improved	4945300	Eggs- 3383 lakhs No.	287.6 eggs/year
Desi	1137215	Eggs- 345 lakhs No.	94.6 eggs/year
Ducks	-		
Turkey and others	-		

2.7. Details of Adopted Villages (2020)

S.No.	Taluk/ Mandal	Name of the block	Name of the village	Year of adoption	Major crops & enterprises	Major problem identified	Identified Thrust Areas
KVK adopted villages							
1.	Salem	Panamarathupatti	Kammalapatti	2018	Tapioca, Guava, Flowers, Turmeric and Vegetables	Low yield in turmeric Lake of awareness in flower crops	Introduction Jasmine, Spices, Training on IPDM in fruits and vegetables TSP interventions
2.	Salem	Veerapandy	Puthur Agraharam	2018	Millets, Onion, Paddy, Banana and Greens	Low yield in millets, Onion and greens and water problem	TN-IAMWARM interventions
3.	Salem	Panamarathupatti	Sandhiyur	2019	Tapioca, Jasmine, Nerium, coconut,	Lack of awareness on ICM practices	Introduction of desi poultry cages and birds

					cattle, poultry	in crops and IFS	under SC SP component.
DFI villages							
1	Salem	Panamarathupatty block	Samakuttapatti (Tribal Village)	2018	Minor millets, Flowers, Vegetables, Turmeric, livestock and poultry	Marketing problem especially direct marketing of flowers is very difficult	Demonstraion of Vegetable Cowpea Arka Mangala, tomato hybrid CO4 and Ridge gourd hybrid CO1 and Assessment of performance of marigold hybrids in DFI village and EDP on value addition in millets and horticultural crops, Demonstration of IPDM in Snake gourd Demonstration of Namakkal Gold Quail for Egg production.

2.8. Priority/thrust areas

Crop/Enterprise	**Thrust area**
Paddy	Introduction of new varieties, IPDM practices especially against false smut, technologies for direct sown paddy
Maize	FAW management
Sorghum, minor millets	Introduction of high yielding new varieties
Pulses and oilseeds	Introduction of new varieties and Seed production techniques
Gingelly	Introduction of new release white seeded variety and pelleting technology
Chilli	Popularization of newly released hybrids and eco friendly insect pest management, Protray nursery and IPDM techniques
Guava	Introduction of new red flesh varieties, nematode management

Groundnut, Gingelly, Turmeric, Greens	Introduction of new high yielding varieties, IPDM, and INM
Tomato	Drought management and ICM
Cucumber and muskmelon	Polythene mulching
Brinjal, Tomato	Eco friendly pest and disease management techniques
Sugarcane	Integrated pest and disease management
Tuberose, Jasmine, chrysanthemum	Eco friendly pest and disease management techniques and nutrient management techniques
Value addition	Value addition in minor millets and fruits
Livestock	Promotion of fodder bank for mixed fodder production
Livestock	Improvement of fertility in cattle
Poultry	Prevention and treatment of Ranikhet disease in chicken
IFS	Integrated farming systems for the year round income

3. Salient Achievements

Achievements of Mandated activities (1st January 2020 to 31st December 2020)

S.No	Activity	Target	Achievement
1.	Technologies Assessed and refined(No.)	-	-
2.	On-farm trials conducted (No.)	12	
3.	Frontline demonstrations conducted (No.)	29	
4.	Farmers trained (in Lakh)	2057	4644
5.	Extension Personnel trained (No.)	300	393
6.	Participants in extension activities (in Lakh)		
7.	Production and distribution of Seed (in Quintal)	300	227.65
8.	Planting material produced and distributed (in Lakh)	10000	13560
9.	Live-stock strains and finger lings produced and distributed (in Lakh)	101	101
10.	Soil samples tested by Mini Soil Testing Kit (No)	300	359
11.	Soil samples tested by Traditional Laboratory (No)	100	50
12.	Water, plant, manure and other samples tested (No.)	100	116
13.	Mobile agro-advisory provided to farmers (No.)		
14.	No.of Soil Health Cards issued by Mini Soil Testing Kits (No.)		341
15.	No.of Soil Health Cards issued by Traditional Laboratory (No.)		18

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

- Under pulses seed hub programme 227.65 quintals of certified seeds of black gram, green gram, cowpea and red gram produced for the benefit of farming community of Salem district.
- More than 10000 planting materials of fruit trees supplied for the benefit of farming community of Salem district.
- Under SBGF honey bee scheme, training on bee keeping and honey processing were conducted to the beneficiaries for economic empowerment.
- Paid trainings on Mushroom cultivation and honey bee rearing were conducted for entrepreneurship development of rural youth and farmers.

- Friends of Coconut (FOCT) trainings sponsored by CDB, Regional office, Chennai was conducted in which 20 rural youth participated and benefited with technical knowledge and coconut tree climber.
- Disaster management training was conducted for the benefit of extension functionaries.
- Animal health campaign cum infertility campaign conducted for the benefit of rural livestock farmers
- EDP on poultry entrepreneurship development was conducted to the beneficiaries of DFI tribal village for their livelihood empowerment.
- 113 poultry and livestock were distributed for the benefit of farmers.
- Under DAMU scheme, more than 10 awareness programmes and online trainings on weather based agro advisories conducted
- Under TN- IAMP programme , demonstration on Maize fall worm control measures pulses seed production (black gram) and grafted brinjal cultivation taken up in Thirumanimuttar sub basin area

4. TECHNICAL ACHIEVEMENTS

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

OFT (Technology Assessment)

No. of OFTs		Number of technologies		Number of locations (Villages)		Total no. of Trials / Replications / Beneficiaries	
Targets	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
12	10	24	20	23	21	55	40

FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers / Beneficiaries / Replications	
Targets	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
29	19	72	40	277	187

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

Number of Courses			Number of Participants	
Clientele	**Targets**	**Achievement**	**Targets**	**Achievement**
Farmers and Farm Women	**69**	**94**	**2070**	4644
Rural youth	**20**	**18**	**600**	616
Extn.Functionaries	**9**	**9**	**270**	393

Extension Activities

Number of activities		Number of participants	
Targets	**Achievement**	**Targets**	**Achievement**
500			

Seed Production (q)

Target	Achievement	Distributed to no. of farmers
300	227.65	464

Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
10000	13560	101

Technology Assessments(OFTs) in Detail

OFT 1

1. Thematic area: Crop Improvement
2. Title: Assessment of suitable high yielding paddy variety for samba sowing
3. Scientists involved: Dr. M. Vijayakumar, Associate Professor (Agronomy)
4. Details of farming situation:

In Salem district, paddy is cultivated in an area of 18656 ha with an average productivity of 4.52 tons /ha. Mainly in our district paddy cultivated during kar, kuruvai, samba and navarai season under irrigated conditions. During samba season most of the farmers preferred cultivating fine-grain varieties such as white ponni and BPT 5204. But these fine-grain varieties are highly susceptible to pest and disease when sowing during samba and late samba season. The was trial was taken up at Kolathur block of Navapatti village having the soil pH varies between 6.5 to 8.0. The nutrient status of the soil is low in available N, Medium in available P and Medium to high in available K.

5. Problem definition / description: (one paragraph)

In Salem district, farmers cultivating white ponni and shifting from white Ponni to BPT 5204 but these varieties are susceptible to pest and disease when sown during samba and late samba season. These varieties are sown during late samba more incidences of false smut disease and BPH problem has appeared. Hence, farmers want of suitable alternative fine grain variety for sowing this particular season.

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

Technology options	
TO-1	ADT 54
TO-2	BPT 5204
FP	White Ponni

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

Sl.No.	Inputs	Qty	Amount (Rs)
1	Paddy Seeds	25 kg	1200
2	*T. viridi*	1 kg	150
3	Pesudomonas	1 kg	150
4	Azospirillum	1 kg	150
5	Phosphobacteria	1 kg	150
6	Soil & water testing	1 no	200
	Total cost for one demo		2000

8. Results:

Table : Performance of the technology

Technology Option	***No.of trials***	***Yield (q/ha)***	***Net Returns (Rs./ha)***	***B:C ratio***	***Data on Other performance indicators****
Farmers Practice - White Ponni	*5*	45.8	114500	1:1.67	*No. of productive tillers – 13*
ADT 54		56.3	140750	1:1.98	*No. of productive tillers – 16*
BPT 5204		51.1	127750	1:1.83	*No. of productive tillers – 15*

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

9. Constraints:

The crop was sown during late samba to Navarai with heavy dew condition lakshmi disease problem has been found.

10. Feedback of the farmers involved:

Farmers were highly satisfied with the growing of paddy variety ADT 54 during samba season and were surprised about the length of panicle and more no. of grains per panicle than other variety. In addition, they told that when growing of ADT 54 approximately to get more yield of 10 bags per acre than the ponni and other variety.

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

Paddy variety ADT 54 recorded higher yield than white ponni and BPT5204 and less incidence of pest and disease occurred.

OFT 2

1. Thematic area: Integrated Crop Management
2. Title: Mitigation of Drought through Seed Hardening in Direct Sown Rice
3. Scientists involved: Dr R.Vijayan Assistant Professor (Seed Sci. & Tech.)
4. Details of farming situation:

Kalvarayan hills are a major range of hills situated in the Eastern Ghats of the southern Indian state of Tamil Nadu with a total area of 382.7 Sq.Km covering 67 villages and 25 hamlets. In Kalvarayan hills 920 ha are cultivated direct sown paddy under rainfed condition.

5. Problem definition / description: (one paragraph)

In rainfed condition field emergence is poor due to non adoption of any seed treatment, resulted uneven field establishment and low yield. So, farmers need technology to improves the field emergence as well as resistance towards water and temperature stress

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

Technology options	
TO-1	Seed hardening with 1% KCl + seed treatment with *Pseudomonas fluorescens* 10g/kg + Azospirillum *and Phosphobacteria* @ 10g/kg each
TO-2	Seed hardening with 1% CaCl2 + seed treatment with *Pseudomonas fluorescens* 10g/kg + Azospirillum *and Phosphobacteria* @ 10g/kg each
FP	No Seed Treatment

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

Sl.No.	**Inputs**	**Qty**	**Amount (Rs)**
1	PuzhuthiKar Seeds	30 kg	1050
2	Calcium Chloride	150 g	20
3	Potassium Chloride	150 g	20
4	Pesudomonas	300 g	50
5	Azospirillum	300 g	50
6	Phosphobacteria	300 g	50
	Total cost for one demo		1240

8. Results:

Table : Performance of the technology

Technology Option	***No.of trials***	***Yield (q/ha)***	***Net Returns (Rs./ha)***	***B:C ratio***	***Data on Other performance indicators****
Farmers Practice	*5*	10.6	19850	*1: 1.63*	*No. of productive tillers – 5to 6*
Technology 1- Seed hardening with 1% KCl + seed treatment with *Pseudomonas fluorescens* 10g/kg + Azospirillum *and Phosphobacteria* @ 10g/kg each		12.6	29140	*1: 1.91*	*No. of productive tillers – 9 to 10*
Technology 2 Seed hardening with 1% CaCl2 + seed treatment with *Pseudomonas fluorescens* 10g/kg + Azospirillum *and Phosphobacteria* @ 10g/kg each		11.82	25140	*1: 1.78*	*No. of productive tillers – 7 to 8*

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

9. Constraints:

Seed Hardening is required 16 hours for soaking followed by drying will take minimum 2 to 3 three days to complete the process and volume also high.

10. Feedback of the farmers involved:

Farmers were satisfied with 1% KCL hardening and followed by seed treatment with pseudomonas, azhosphyrillum and phosphobacteria due to its better performance in the field emergence as well as uniform field establishment.

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

Seed hardening is the very important pre sowing seed management technique for drought tolerant as well as resistance towards water and temperature stress.

OFT 3

1. Thematic area: Integrated Crop Management
2. Title: ASSESSMENT OF BIOPRIMING IN BHENDI
3. Scientists involved: Dr R.Vijayan Assistant Professor (Seed Sci. & Tech.)
4. Details of farming situation:

In Salem district, bhendi are cultivated in 2993 ha area with average productivity of 4.7 tons /ha. Bhendi cultivated throughout the year with irrigated condition. Panamarathupatti block of salem having the soil pH varies from 6.5 to 8.0.The nutrient status of the soils are low in available N, Medium in available P and Medium in available K.

5. Problem definition / description: (one paragraph)

In bhendi field emergence is poor due to non adoption of any seed treatment, resulted uneven field establishment. So, farmers need technology to improves the field emergence as well as resistance towards water and temperature stress

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

Technology options	
TO-1	Biopriming with 10 % *Pseudomonas*
TO-2	Biopriming with 10 % *Trichoderma*
FP	No Seed Treatment

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

Sl.No.	**Inputs**	**Qty**	**Amount (Rs)**
1	Bhendi Seeds	1000 g	2000
2	Pesudomonas	250 ml	160
3	Trichoderma	250 ml	160
	Total cost for one demo		2320

8. Results:

Table : Performance of the technology

Technology Option	***No.of trials***	***Yield (q/ha)***	***Net Returns (Rs./ha)***	***B:C ratio***	***Data on Other performance indicators****
Farmers Practice	*5*	159.7	239550	*1:2.47*	No. Harvest - 19 Fruit Nos. – 23.
Technology 1- Biopriming with 10 % Pseudomonas (9 hrs)		172.5	258750	*1:2.59*	No. Harvest - 22 No. of Fruits – 27
Technology 2 - Biopriming with 10 % Trichoderma		169.8	254700	*1:2.56*	No. Harvest - 21 No. of Fruits per plant – 25

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

9. Constraints:

Bioprimimg is required technical skill and soaking followed by drying will take minimum 2 to 3 three days to complete the process.

10. Feedback of the farmers involved:

Farmers were satisfied with Biopriming with 10 % Pseudomonas due to its better performance in the field emergence as well as uniform field establishment.

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

Bio Priming is the helping for improvement of seed germination as well as better field establishment.

OFT -4

1.	Thematic area	**Varietal Assessment**
2.	Title	**Assessment of performance of tomato hybrids in Salem district**
3.	Scientists involved	Dr G.Malathi, Assistant Professor (Hort.)
4.	Details of farming situation	Describe the farming situation including Season, Farming situation (RF/Irrigated), Soil type, fertility Status, Seasonal rainfall (mm) No. of rainy days etc In Salem district, tomato is cultivated in an area of 526ha in Panamarathupatty block. The major villages cultivating tomato are Panamarathupatti, Kammalapatti, Thumbalpatti, Mallur, Nalikkalpatti etc.,. This block of Salem district is having the soil pH of 6.5 to 8.0.The nutrient status of the soils are low in available N, Medium in available P and Medium in available K. Farming situation is irrigated condition.
5.	Problem definition / description: (one paragraph)	Lesser productivity of existing private hybrids Yield loss due to major diseases like leaf curl, Early and late blight and bacterial wilt (Up to 30 %) • Private hybrids are ruling in the market

		• Farmers need hybrids having good yield potential and disease resistance • TNAU Tomato Hybrid CO4 and Arka Vishesh are the hybrids with high yield and multiple disease resistance **Special features** **TNAU Tomato Hybrid CO4** Tomato Hybrid CO4 is a F1 hybrid of LE 1226 X LE 1249. Fruits are flat round with thick pericarp (5.84 mm) with extended shelf life (10 days at room temperature). Fruits have green shoulder at breaker stage which turns to red colour at ripening. Fruits are borne in clusters of 5-6, with an average fruit weight of 75.3 g. Hybrid has long harvesting period with 20-22 harvests in 150 days with a yield of 2.94 kg per plant. Yield: 92.3 t/ha (27.31 % increase over TNAU tomato hybrid CO3 and 40.91% over Lakshmi). Ascorbic acid content: 26.13 mg/100 g, TSS: 6.7o brix and Titratable acidity: 0.70 %. The hybrid is moderately resistant to leaf curl virus (10.5 PDI). **Arka Vishesh:** (IIHR, 2019) It has triple disease resistance to Tomato Leaf Curl Disease (7y/+7y2), bacterial wilt and early blight. Plants are semi-determinate with dark green foliage and joint-less pedicle. Recommended for summer, kharif & rabi cultivation. It has a yield potential of 43.3-90 t/ha in 140-150 days. Fruits are firm, deep red, oblong and medium large (90-100g). Fruits have a TSS of 4.6o Brix), acidity (0.36%) and lycopene content of 14.14 mg / 100 g fresh weight.
6.	Technology Assessed	Technology Options
		T1 Farmers Practice (Sivam from Rasi seeds)
		T2 **TNAU Tomato Hybrid CO4** Source : TNAU 2020
		T3 **IIHR Arka Vishesh** Source : IIHR 2019

7. Critical inputs given:

	Technology Options	**Inputs**	**Qty.**	**Unit Cost(Rs.)**	**Total Cost (Rs.)**
T1	Farmers Practice (Sivam from Rasi seeds)				
T2	**TNAU Tomato Hybrid CO4** Source : TNAU 2020	Seeds	40 g	1000	5000
T3	**IIHR Arka Vishesh** Source : IIHR 2019	Seeds	40 g	1000	5000

	Total	Arka Vegetable Special	2kg	400	2000
		Field board			1000
				Total Cost	13000

8. Results:

Table : Performance of the technology

The tomato hybrid TNAU CO4 performed better when compared to Arka Vishesh and Private hybrid Sivam. The comparative results are shown below.

Technology Option	No. of trials	Yield (t/ha)	Net Returns (Rs./ha)	B:C ratio	Data on Other performance indicators
Farmers Practice (Sivam from Rasi seeds)	*5*	62	217000	1:2.55	• No. of fruits per cluster 4-5 • Fruit yield per plant – 2.15 to 2.25kg • No. of harvests – 16-18
TNAU Tomato Hybrid CO4 Source : TNAU 2020		95	380000	1:3.81	• No. of fruits per cluster 5-6 • Fruit yield per plant – 2.5 to 2.75kg • No. of harvests – 20-22
IIHR Arka Vishesh Source : IIHR 2019		87	326000	1:3.41	• No. of fruits per cluster 4-5 • Fruit yield per plant – 2.25 to 2.5 kg • No. of harvests – 18-20

9.Constraints faced: -

10. Feed back of the farmers involved:

The seed cost of the private variety grown by the farmer is higher and the hybrids such as TNAU CO4 and IIHR hybrid Arka Vishesh performed better. But the market preference for COTH4 is comparatively higher due to the large sized fruits with shoulder similar PKM1tomato variety which enhances the consumer preference in the market. In general the consumers prefer COTH4 hybrid rather than Arka Vishesh hybrid and hence marketability is also comparatively easier and better in COTH4.

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

The hybrids such as TNAU CO4 and IIHR hybrid Arka Vishesh performed better with regard to yield. Comparatively yield and market preference for COTH4 is comparatively higher. Because fruits are flat round with thick pericarp with extended shelf life (10 days at room temperature) and fruits have green shoulder at breaker stage which turns to red colour after ripening.Yield per plant is higher because fruits are borne in clusters of 5-6, with an average fruit weight of 70 to 75 g and with extended harvesting period with 20-22 harvests in 150 days with a yield of 2.5 to 2.75 kg per plant. In general the consumers preference is more for COTH4 hybrid rather than Arka Vishesh hybrid (because of green shoulder at breaker stage with more acidity (0.7%) and hence marketability is also comparatively easier and better in COTH4. Since the hybrid COTH4 is moderately resistant to leaf curl virus (10.5 PDI), the cost of cultivation is comparatively lower.

OFT-5

1.	Thematic area	:	Crop Management				
2.	Title	:	Assessing the performance of foliar based micronutrient mixture for yield enhancement in Cassava				
3.	Scientists involved	:	SMS (SS&AC) and SMS (Hort.)				
4.	Details of farming situation	:	Irrigated, red sandy loam soil				
5.	Problem definition / description	:	Multiple micronutrient deficiencies lead to poor tuber yield. Low adoption of efficient nutrient management practices				
6.	Technology Assessed	:	TO_1 - Foliar application of Cassava booster at 2, 3 & 4 MAP				
			TO_2 - Foliar spraying of 0.5 % Cassava Special at 2, 3 & 4 MAP				
			FP - Application of NPK fertilizers only				
7.	Critical inputs given	:	TO	Inputs	Quantity	Unit cost (Rs.)	Total cost (Rs.)
			TO_1	Cassava booster	75 kg	95.30	7147.50
			TO_2	Cassava special	15 lit	250.00	3750.00

8. Results:

Table : Performance of the technology

Technology Option	***No. of trials***	***Yield (t/ha)***	***Net Returns (Rs./ha)***	***B:C***	***Data on Other performance indicators****
Farmers Practice	*5*	*32.5*	*106750*	*2.91*	*No. of tubers/plant: 5.46 Rosette shoot damage:32%*
Technology 1- Cassava booster		*38.6*	*133650*	*3.25*	*No. of tubers/plant: 7.26 Rosette shoot damage:8%*
Technology 2- Cassava special		*34.7*	*116810*	*3.06*	*No. of tubers/plant: 6.14 Rosette shoot damage:26%*

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

9.	Constraints	:	Nil
10.	Feedback of the farmers involved	:	Spraying of cassava booster requires pre fermentation of neem cake and bio input with cow dung for 10 days. Even though it is effective farmers feel it is time

			consuming. However, cassava booster performs well than cassava special. Pest incidence especially mealy bug incidence was very less in cassava booster treated fields.
11.	Feed back to the scientist who developed the technology	:	Foliar spraying of cassava booster was found more effective in enhancing yield of cassava besides controlling pests and diseases.

OFT : 6

1.	**Thematic area:** Crop Management
2.	**Title**: Assessment of TNAU MN mixture and IISR MN mixture in turmeric in Salem District
3.	**Scientists involved**: Dr G.Malathi, Assistant Professor (Hort.)
4.	**Details of farming situation**: Describe the farming situation including Season, Farming situation (RF/Irrigated), Soil type, fertility Status, Seasonal rainfall (mm) No. of rainy days etc In Salem district, turmeric is cultivated in an area of 3905 ha in Thalaivasal, Attur, Valapaday, Kolathur, Edappady, Sangakiri, Kadayampatti and Omalur blocks. These blocks of Salem district is having the soil pH of 6.5 to 8.0.The nutrient status of the soils are low in available N, Medium in available P and Medium in available K. Farming situation is irrigated condition.
5.	**Problem definition / discription**: • Lack of knowledge on soil test based nutrient application • Lack of knowledge on application of micro nutrients for turmeric which resulted in low yield and quality in turmeric • Micronutrients deficiency & post harvest losses due to old varieties • Soil test based nutrient application along with micro nutrient – Resulted in increasing yield and improving quality
6.	**Technology Assessed:**

	Technology Options
T1	TNAU MN mixture 15kg/ha (TNAU, 2020)
T2	IISR MN mixture (5gm per litre of water once during 60 days after planting and another 90 days after planting) Source : IISR 2014
T3	Farmers Practice variety (Without micro nutrient application)

7. Critical inputs given:

	Technology Options	**Inputs**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
T1	Farmers Practice variety (Without micro nutrient application)				
T2	TNAU MN mixture 15kg/ha (TNAU, 2020)	TNAU MN mixture	15kg/ha	1000	5000

T3	IISR MN mixture (5gm per litre of water once during 60 days after planting and another 90 days after planting) Source : IISR 2014	IISR MN mixture	2kg/ha	1000	5000
		Trichoderma viridi Field board	2.5 kg /ha	960	4800
	Total				14800

8. Results:

Table : Performance of the technology

Technology Option	No. of trials	Yield (t/ha)	Net Returns (Rs.)	B:C ratio	Data on Other performance indicators*
Farmers Practice variety (Without micro nutrient application) RD:150:60:108kg NPK/ha	5	5.4	203000	2.19	Fresh rhizome yield - 32.5 t/ha, Duration 270 days Dry recovery – 16.5%
TNAU MN mixture 15kg/ha (TNAU, 2020)		6.8	361000	3.67	Fresh rhizome yield - 38.5 t/ha, Duration 270 days Dry recovery – 17.5%
IISR MN mixture (5gm per litre of water once during 60 days after planting and another 90 days after planting) Source : IISR 2014		6.4	303000	2.95	Fresh rhizome yield - 36.5 t/ha, Duration 270 days Dry recovery – 17.0%

9. Constraints faced.

10. Feed back of the farmers involved:

The basal application of micro nutrients helps in better growth of the roots and reduced the symptoms and incidence of root rot. This resulted in the increase in yield and dry recovery percentage.

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

The basal application of micro nutrients of TNAU MN mixture resulted in the better growth and development of both shoot and root system. Hence increased yield (38.5t/ha resh rhizome yield and 6.8t/ha dry rhizome yield) and more dry recovery (17.5%) has been obtained. Whereas the foliar application of IISR MN mixture resulted in avoidance of deficiency of micronutrients and thus resulted in increased yield when compared to farmers practice that is without application of micro nutrients.

OFT - 7

1.	Thematic area	**Cattle – Nutrition management**	
2.	Title	**Assessment of Feed additives to improve milk quantity and composition in Dairy cattle**	
3.	Scientists involved	Dr. P. Kohila, SMS (Veterinary and Animal science)	
4.	Details of farming situation	Semi intensive system of rearing	
5.	Problem definition / discription	In dairy cattle, feeding of low quality roughage and cereal based diet leads to reduction in milk quality as well as quantity. High cost of milk production, low economic returns due to low levels of fat and SNF content of milk. Sub acute ruminal acidosis, reduction in quality and quantity of milk. Hence, it has been proposed to assess the feed additives to improve milk quantity and composition in dairy cattle.	
6.	Technology Assessed(give full details of technology as well as farmers practice)	FP (T1)	**Regular feeding of roughages and concentrate feed**
		T2	**FP + Sodium bicarbonate @ 2% of concentrate mixture,** Allahabad University, UP (2018) Sodium bicarbonate is supplemented @ 25- 30 gm/day/ animal in addition to regular feeding. Milk yield, fat and SNF content are recorded.
		T3	**FP + Sodium Bicarbonate @ 2 % of concentrate mixture and Probiotic /Yeast,** UAS, Raichur, Karnataka (2016) Sodium bicarbonate @ 25- 30 gm/day/ animal and yeast bolus 2 No./day are supplemented in addition to regular feeding. Milk yield, fat and SNF content are recorded.

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

	Technology Options	Inputs	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
T1	Farmers practice	-	-	-	-
T2	FP + Sodium bicarbonate @ 2% of concentrate mixture	Sodium bicarbonate,	10	100	1000
T3	FP + Sodium Bicarbonate @ 2 % of concentrate mixture and Probiotic /Yeast,	Sodium bicarbonate, yeast bolus (Provisacc) – 2 No./day	10	1400	14000
		Concentrate feed, TANUVAS mineral mixture, field board, etc.,	10 units		2000
	Total		-	-	17000

8. Results:

Table : Performance of the technology

Technology Option	No. of trials	Average milk fat %	Net Returns/ batch (Rs. per unit)	B:C ratio	Data on Other performance indicators*
Farmers Practice (TO1)	10	4.0	21300	1:2.11	• Milk yield /animal /day – 8.0 litres • SNF – 8.0 % • Incidence of subacute ruminal acidosis - 25 %
Technology 2		4.1	25450	1:2.26	• Milk yield /animal/day – 8.2 litres • SNF – 8. 0 % • Incidence of subacute ruminal acidosis - 5 %
Technology 3		4.6	33050	1:2.47	• Milk yield /animal – 8.4 litres • SNF – 8.1 % • Incidence of subacute ruminal acidosis - nil

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

Results of the OFT revealed, supplementation of Sodium Bicarbonate @ 2 % of concentrate mixture and Probiotic /Yeast in addition to regular feeding increased the fat content of milk from 4.0 % (TO1) to 4.6 % (TO3). The net return and BCR in sodium bicarbonate and yeast supplemented group were Rs. 33050 and 2.47 respectively in comparison to farmers practice (Net return – Rs.21300, BCR – 2.11). In milk yield, no significant difference observed between farmers practice and animals supplemented with sodium bicarbonate and yeast or with sodium bicarbonate alone. Incidence of sub acute ruminal acidosis was nil in TO 3 and low in TO2 in comparison to farmers practice.

Constraints faced: Nil

9. Feed back of the farmers involved:

Supplementation of sodium bicarbonate and yeast resulted in increased fat content of milk that fetched higher price as the price of milk is fixed based upon the fat and SNF content of milk.

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

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OFT- 8

1. Thematic area : Extension

2. Title: Study on Impact of KVK Interventions on Agriculture and Allied Sector during COVID-19 Lockdown period – A Critical Analysis

3. Scientists involved : Dr S. Gurunathan, SMS (Agricultural Economics)

4. Details of farming situation:

During COVID-19 lock down period great difficulties were encountered by the farmers since on campus and off campus trainings are restricted to then due to restrictions imposed by the government on mass gathering. The lockdown affects the farmers inaccessible and inadequately accessible in reaching out to the KVK and its scientists for getting technological information. Capacity building programmes were organized through online mode and information were shared to them through social media tools like whatsapp, portals, emails and videos.

5. Problem definition / description: (one paragraph)

During lockdown period farmers face lots of difficulties in getting technological inputs and information and solutions for various problems arising out of diagnosis like pests and diseases infestation, physiological disorders, deficiency symptoms etc. at the same time the lockdown remained no longer an impediment to the KVK in disseminating the intended technological information, guidance and solutions to the farmers' issues and problems on field and off field. KVK and its scientific staffs took all out efforts to disseminate its technological interventions to the farmers timely and adequately by all possible modes like social media tools like whatsapp, portals, emails and videos. The lock down has provided an economical and less time consuming and rapid disseminating communication tool namely virtual (online) training. Meantime there may exist difference in awareness creation, adoption and implementation and penetration indices of technologies disseminated through various modes during new normal (lock down) period and normal (regular) period which need to be studied.

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

30 maize farmers who were keeping contact with the KVK for last three years were continuously followed for studying the impact on Knowledge Gain (Impact 1/ I-1), Economic Impact ((Impact 2/ I-2)) and Spread of technology ((Impact 3/ I-3)) and these results were compared with same number of the control farmers who have no regular contact with KVK during the last three years in similar production environment

I-1	Knowledge Gain (30 farmers)
I-2	Economic Impact (same 30 farmers)
I-3	Spread of technology (same 30 farmers)
Control	Farmers who have no regular contact with KVK during the last three years (30 different farmers)

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

Trainings (virtual), diagnostic visits, experts opinions and consultancies, awareness programmes and campaigns (online and in person)

8. Results:

Table 1: Impact of the KVK interventions in technology transfer during COVID-19 lock down period among maize farmers

Impacts	No. of trials (sample)	% gain
Control farmers	30 farmers	26.70
Impact 1 (Knowledge Gain)	30 farmers	58.10
Impact 2 (Economic Impact)	30 farmers	70.00
Impact 3 (Spread of technology)	30 farmers	33.33

Table: Performance of the KVK interventions in technology transfer during COVID-19 lock down period among maize farmers

Types of farmers	No. of farmers	% of technological awareness	% of Knowledge gain	% of skill related Knowledge gain	Symbolic adoption behavior index		
					L	M	H
Control	30 farmers	40.00	26.70	20.00	55	26	19
Sample	30 farmers	100.00	63.30	56.70	20	50	30

9. Constraints:
During the lock down period the institution and its staff face difficulties to perform outreach activities. Collection of information for analysis itself has lots of impediments due to lock down restrictions. The staffs of KVK were forced to resort virtual mode of technology dissemination which had impacts on slower awareness creation, adoption and implementation of technologies disseminated by KVK.

10. Feedback of the farmers involved:
Farmers grabbed the opportunities available to them from the KVK during the lock down period. Farmers opined that even though the virtual mode of technology dissemination is due to a compulsive situation, they encounter difficulties in using electronic gadgets life, smart mobile phones, tablet PCs and virtual and video conferencing platforms of communication spread like zoom, google meet, webex etc.

11. Feed back to the scientist who developed the technology:
Even though if there are difference in awareness creation, adoption and implementation and penetration indices of technologies disseminated through various modes during new normal (lock down) period and normal (regular) period, the lock down has provided an economical and less time consuming and rapid disseminating communication tool namely virtual (online) training which have definite impact on the farmers in terms of knowledge gain, economic impact and spread of technology.

OFT- 9

1. Thematic area : Extension

2. Title: Assessment of effectiveness of weather advisory services through different mode of communication tools

3. Scientists involved : Dr S. Gurunathan, SMS (Agricultural Economics)

4. Details of farming situation:

Assessing the effectiveness of weather advisory services through different mode of communication tools was conducted in the garden and dry land situation among farmers with same age group, education status, social participation, farm size and income status. Homogeneity of the farmers groups were selected to introduce the treatments. The treatments are T1 – Through mobile app and T2- through whats app. 30 farmers for each treatment were selected based on the age, educational status, income, farm size, farming experience and social participation. The selected groups were exposed to mobile apps like uzhavan app and Meghdoot app (T1) and whatsapp weather advisory messages (T2) data from T1 and T2 are compared with (farmers practice of disseminating through conventional media of newspaper (control) The before and after exposure knwoeldge level, knowledge related to skill acquisition and symbolic adoption were measured by employing well structured interview schedule. The mean gain from the before and after measured as knowledge gain, knowledge related to skill acquired and symbolic adoption expressed.

5. Problem definition / description: (one paragraph)

Mobile apps in agriculture and weather related subject is being implemented by agriculture department and other stakeholders to reach the technologies up to the last mile connectivity. There may exist difference in awareness creation, adoption and implementation and penetration indices of technologies disseminated through various modes of communication tools like, mobile appa, whats app and print media which need to be studied.

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

T1	Through mobile app (30 farmers)
T2	Through whats app (30 farmers)
Farmer practice	Through print media (30 farmers)

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

Presentation on different mobile apps disseminating weather advisories were made to each group of farmers. Group of T1 farmers were facilitated to down load the mobile app from Google play store. Group of T2 farmers were facilitated to obtain weather advisories as whats app messages. Only connectivity provisions were given to farmers to access the mobile app with help of their smart mobile phone.

8. Results:

Table : Performance of the technology

Technology Option	No. of trials	% of Knowledge gain	% of Knowledge gain related skill	Symbolic adoption behavior index			T value*
				L	M	H	
Technology 1 Through mobile app (30 farmers)	30 farmers	23.33	16.67	60	30	10	11.51**
Technology 2 Through whats app	30 farmers	40.00	36.67	25	45	30	12.49**
Farmers Practice Through print media	30 farmers	40.00	33.33	25	40	35	4.36**

9. Constraints:

Mobile apps namely Uzhavan app, Kisan suvitha app and Megh doot app are providing exclusive weather information. But these apps have short comings like language probles, connectivity and updation issues. Farmers prefer print media relatively higher adoption behavior index. Farmers are reluctant to use the mobile app especially to access the weather related information. However many of the farmers need hands on training on how to use mobile app for accessing market related information.

10. Feedback of the farmers involved:

Farmers felt that the mobile apps are highly useful especially for getting timely information on weather aspects. Voice based information may be provided in the mobile app.

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

Information in local and regional language need be included in the mobile app. Automatic voice based interactive response system may be included in the mobile app.

OFT- 10

1. Thematic area : Extension

2. Title: Assessing the effectiveness of different training tools in terms of imparting knowledge gain, skill acquisition and symbolic adoption behaviour among the rural youth

3. Scientists involved : Dr S. Gurunathan, SMS (Agricultural Economics)

4. Details of farming situation:

Assessing the Effectiveness of different training tools in terms of knowledge gain and skill acquisition and symbolic adoption behavior among the rural youth was conducted in the wet land environment. The farmers who cultivate maize crop with same age group, educational status, social participation, farm size and income status were subjected to continuous observation. The treatments are T1 – Presentation (with AV tools), T2- Hands on (method demonstration) and T3- Online (virtual mode). 20 maize farmers for each treatment were selected based on the age, educational status, income, farm size, farming experience and social participation. The selected groups were exposed to conventional lectures (T1) on maize technology, presentation with AV tools (T2) and online mode of training (T3). The before and after exposure knowledge level, skill acquisition and symbolic adoption were measured by employing well structured interview schedule. The mean gain from the before and after measured as knowledge gain, skill acquired and symbolic adoption expressed.

5. Problem definition / description: (one paragraph)

Agricultural Universities and research and extension institutions nowadays are introducing lot of ICT in Agriculture intervention along with traditional training methods for improving the knowledge, skill of the farming community. But there is no concrete data and evidences to decide the better mode of technology delivery which will be effective in terms of imparting knowledge, skill and symbolic adoption especially on paddy cultivation. Present extension system is also facing problem for delivering the technologies in time and door step to the farming community due to lack of man power in government agriculture department. Also farmers are not aware about different ICT tools in agriculture for getting timely

information related to paddy cultivation. Based on this problem, the OFT was proposed to measure the effectiveness of different training tools among the maize growers of Salem district.

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

T1	Presentation (with AV tools)
T2	Hands on (method demonstration)
T3	Online (virtual mode)
Farmer practice	Lectures (conventional)

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

Trainings on maize cultivation technologies were imparted to the farmers. Demonstration materials like seed, plant protection and seed treatment chemicals were also used to explain and demonstrate the methodologies by both the scientists as well as the participating farmers. Connectivity provisions were given to farmers to access the online trainings with help of their laptops and smart mobile phones.

8. Results:

Table: Performance of the technology

Technology Option	No. of trials	% of Knowledge gain	% of Knowledge gain related skill	Symbolic adoption behavior index			T value*
				L	M	H	
Lectures	20 farmers	25.00	15.00	65	30	05	4.36**
Presentation (with AV tools)	20 farmers	60.00	40.00	40	40	20	11.45**
Hands on (method demonstration)	20 farmers	70.00	55.00	15	75	10	14.29**
Online (virtual mode)	20 farmers	20.00	15.00	60	30	10	11.21**

9. Constraints:

Even though the tool is most economical (in terms of time conserving and transaction costs) and wider penetration, farmers are still reluctant use the online training tools for accessing the information.

Most of the farmers demand hands on training on how to use inputs and how to adopt and practice maize cultivation technologies

10. Feedback of the farmers involved:

Farmers felt that the hands on training (method demonstration) are highly useful especially for clarifying the IPM and INM and sowing operations. Presentation with audio and video tools is highly effective in clearing pest and diseases related doubts. Videos helped the farmers to learn new skills and skill related knowledge on maize cultivation. E-portals should also be made available in all the *Uzhavar Sandhais* and block office in the mode of touch screen or computers.

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

Farmers expressed that the new varieties and technologies which released by the other SAUs, ICAR and other reputed R&D institutions may be updated in the trainings. Similarly,

the new schemes and services implemented by the Government and other sectors also need to be regularly updated to the farmers.

Frontline Demonstrations in Detail

a. Follow-up of FLDs implemented during previous years

1. Technology-1

Crop/Enterprise

Thematic area

Technology Demonstrated as a follow-up from OFT

Feed back sent to the Research System

Details on the performance of the technology sent to the Extension Department

Horizontal spread of the technology (No. of Villages, farmers and area in ha)

b. Details of FLDs implemented during the reporting period

1. Technology-1

FLD 1: Demonstration and seed production of Paddy CO -53 under farmer participatory mode

1.	Crop	:	Paddy
2.	Thematic area	:	Varietal Demonstration
3.	Technology demonstrated	:	Demonstration and seed production of Paddy CO -53 under farmer participatory mode
4.	Season and year	:	Pre Rabi 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	1
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	2
10.	Area proposed (ha)	:	4 ha
11.	Actual area (ha)	:	4 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Farmers opined that the new variety CO 53 is performed Similar to ASD 16 and ASD 18 and straw yield higher than the above - said variety.
14.	Feedback of the Scientist	:	Paddy CO 53 variety recorded 8% higher yield as compared to ASD 16.
15.	Extension activities on the FLD	:	Farmers training – 1, Field day - 1

(Field days, Farmers training, media coverage, training to Extension Functionaries)

FLD 2: Demonstration and seed production of high yielding dual purpose sorghum var. CO -32 under farmer participatory mode

.	Crop	:	Sorghum
2.	Thematic area	:	Varietal Demonstration
3.	Technology demonstrated	:	Demonstration and seed production of high yielding dual purpose sorghum var. CO -32 under farmer participatory mode
4.	Season and year	:	Rabi 2020
5.	Farming situation	:	Irrigated & Rainfed
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	2
10.	Area proposed (ha)	:	4 ha
11.	Actual area (ha)	:	4 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Farmers opined that the new variety CO 32 is performed better than the local variety and having a dual purpose.
14.	Feedback of the Scientist	:	Sorghum variety recorded 35% higher yield as compared farmer's variety.
15.	Extension activities on the FLD	:	Farmers training - 1

FLD 3: Demonstration of COHM 6 maize

1.	Crop	:	Maize
2.	Thematic area	:	Varietal Demonstration
3.	Technology demonstrated	:	Demonstration of COHM 6 maize
4.	Season and year	:	Rabi 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	2
10.	Area proposed (ha)	:	4 ha
11.	Actual area (ha)	:	4 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Farmers opined that the Maize hybrid COHM 6 was performed better than the private variety.
14.	Feedback of the Scientist	:	Maize Hybrid COHM 6 recorded 22 % higher yield when compared Private hybrid.
15.	Extension activities on the FLD	:	Farmers training - 1

FLD 4: Demonstration and seed production of white seeded gingelly var.VRI 3 under farmer participatory mode

.	Crop	:	Gingelly
2.	Thematic area	:	Varietal Demonstration
3.	Technology demonstrated	:	Demonstration and seed production of white seeded gingelly var.VRI 3 under farmer participatory mode
4.	Season and year	:	Rabi 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	2
10.	Area proposed (ha)	:	4 ha
11.	Actual area (ha)	:	4 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Farmers opined that the new variety VRI 3 is performed better than the local variety and having more market preference.
14.	Feedback of the Scientist	:	Sesame variety VRI 3 recorded 13 % higher yield as compared farmer's variety.
15.	Extension activities on the FLD	:	Farmers training - 1

FLD –5: Demonstration of Seed Production (Foundation /Certified) by Farmer participatory mode in Blackgram variety VBN 10

1.	Crop	:	Blackgram
2.	Thematic area	:	Varietal Demonstration
3.	Technology demonstrated	:	Demonstration of Seed Production (Foundation /Certified) by Farmer participatory mode in Blackgram variety VBN 10
4.	Season and year	:	Pre Rabi 2020
5.	Farming situation	:	Irrigated & Rainfed
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	2
10.	Area proposed (ha)	:	4 ha
11.	Actual area (ha)	:	4 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Farmers opined that the new variety VBN 10 is performed better than VBN 6 & 8 and having bold seed.
14.	Feedback of the Scientist	:	Blackgram VBN 10 variety recorded 17% higher yield as compared farmers' variety.

15.	Extension activities on the FLD	:	Farmers training - 1

FLD 6: Demonstration of Blackgram variety VBN 11.

1.	Crop	:	Blackgram
2.	Thematic area	:	Varietal Demonstration
3.	Technology demonstrated	:	Demonstration of Blackgram variety VBN 11
4.	Season and year	:	Pre Rabi 2020
5.	Farming situation	:	Rainfed
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	1
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	2
10.	Area proposed (ha)	:	4 ha
11.	Actual area (ha)	:	4 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Farmers opined that the new variety VBN 11 is performed better than VBN 6 & 8.
14.	Feedback of the Scientist	:	Blackgram VBN 11variety recorded 15% higher yield as compared farmers' variety.
15.	Extension activities on the FLD	:	Farmers training – 1, Field day - 1

(Field days, Farmers training, media coverage, training to Extension Functionaries)

FLD 7: Demonstration Cotton variety CO 17 for Salem District

1.	Crop	:	Cotton
2.	Thematic area	:	Varietal evaluation
3.	Technology demonstrated	:	Demonstration of cotton variety CO 17 for Salem District
4.	Season and year	:	Kharif 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	2
10.	Area proposed (ha)	:	4 ha
11.	Actual area (ha)	:	4 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	The yield was much reduced as compared to previous years due to unexpected rainfall during harvest. However, farmers opined that the new variety CO 17 performed well than surabi.

14.	Feedback of the Scientist	:	Cotton variety CO 17 recorded 21% higher yield as compared farmers' variety (Surabi).
15.	Extension activities on the FLD	:	Farmers training - 1

(Field days, Farmers training, media coverage, training to Extension Functionaries)

FLD 8: Demonstration of Newly released Small Onion variety CO 6 with ICM in Salem district

1.	Crop	:	Small Onion
2.	Thematic area	:	Varietal evaluation
3.	Technology demonstrated	:	Demonstration of newly released small onion variety CO 6 with ICM in Salem district
4.	Season and year	:	Kharif 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	6
10.	Area proposed (ha)	:	2 ha
11.	Actual area (ha)	:	2 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Raising nursery and transplanting of small onion CO 6 performed well than bulb sowing and has given more yields. Yielded boulder bulbs, high clump weight and good crop stand. Maintaining nursery needs more care.
14.	Feedback of the Scientist	:	Small onion CO 6 yielded bold bulbs and recorded 37% higher yield than local variety & bulb sowing.
15.	Extension activities on the FLD	:	Farmers training - 1

FLD 9: Demonstration of newly released Black nightshade - Solanum nigrum L. CO 1 Manathakkaal

1.	Crop	:	Manathakkali
2.	Thematic area	:	Varietal demonstration
3.	Technology demonstrated	:	Demonstration of newly released Black nightshade - Solanum nigrum L. CO 1 Manathakkaali
4.	Season and year	:	Kharif, 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	10
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	5

10.	Area proposed (ha)	:	4
11.	Actual area (ha)	:	4
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	CO1 Manathakkali gives higher yield with better market preference
14.	Feedback of the Scientist	:	CO1 Manathakkali gives higher herbage yield with better market preference because of dark green foliage
15.	Extension activities on the FLD	:	Field day - 1

FLD 10: Demonstration of grafted brinjal in TSP village

1.	Crop	:	Brinjal
2.	Thematic area	:	Others
3.	Technology demonstrated	:	Demonstration of grafted brinjal in TSP village
4.	Season and year	:	Kharif, 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	10
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	5
10.	Area proposed (ha)	:	4
11.	Actual area (ha)	:	4
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Yield is high and cost of plant protection measures is low
14.	Feedback of the Scientist	:	Yield is high and yield from ratoon crop is also an additional income to the farmer without any expenditure and cost of cultivation is reduced because the cost of plant protection measures is lesser
15.	Extension activities on the FLD	:	Farmers training - 1

FLD 11: Demonstration of high yielding Bottle Gourd variety PLR 2 in TSP Village

1.	Crop	:	Bottlegourd
2.	Thematic area	:	Varietal demonstration
3.	Technology demonstrated	:	Demonstration of high yielding Bottle Gourd variety PLR 2 in TSP Village
4.	Season and year	:	Kharif, 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	10
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10

9.	No of SC/ST Farmers and women farmers	:	8
10.	Area proposed (ha)	:	4
11.	Actual area (ha)	:	4
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	PLR2 variety bottle gourd gives higher yield and better marketing since it is having traditional round shape fruits with small neck or with out neck
14.	Feedback of the Scientist	:	PLR2 variety bottle gourd gives higher yield and but transporting to the market is costlier since it is having traditional round shape fruits.
15.	Extension activities on the FLD	:	Farmers training - 1

FLD 12: Demonstration of low cost pandal vegetable production at DFI village

1.	Crop	:	Ridgegourd
2.	Thematic area	:	ICM
3.	Technology demonstrated	:	Demonstration of low cost pandal vegetable production at DFI village
4.	Season and year	:	Kharif, 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	10
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	8
10.	Area proposed (ha)	:	4
11.	Actual area (ha)	:	4
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Low cost pandal is easy to manage or relocate and gives increased profit for ridge gourd, snake gourd etc
14.	Feedback of the Scientist	:	Low cost pandal is easy to manage or relocate and reduce the incidence pest and diseases because it facilitate for crop rotation.
15.	Extension activities on the FLD	:	Farmers training - 3

FLD 13: Demonstration of nutrigarden for providing balanced nutrition to the rural community

1.	Crop	:	Nutri-farm
2.	Thematic area	:	Others
3.	Technology demonstrated	:	Demonstration of nutrigarden for providing balanced nutrition to the rural community
4.	Season and year	:	Kharif, 2020
5.	Farming situation	:	Irrigated

6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	10
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	-
10.	Area proposed (ha)	:	0.2
11.	Actual area (ha)	:	0.2
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Nutrition garden gives balanced diet to the entire family with lesser effort and it reduces the expenditure on vegetables to a greater extent. Vegetables grown at own garden with more freshness gives more nutrition and working in cultivating vegetables for own use gives enthusiasm and feeling happy by involving all the family members working together.
14.	Feedback of the Scientist	:	Vegetables grown at own garden with more freshness gives more nutrition and working in cultivating vegetables for own use gives enthusiasm and feeling happy by involving all the family members working together.
15.	Extension activities on the FLD	:	Farmers training - 4

FLD 14: Demonstration of community nursery in tribal areas for sustainable vegetable production (handed over to Jarugumalai FPO)

1.	Crop	:	Communit nursery
2.	Thematic area	:	Others
3.	Technology demonstrated	:	Demonstration of community nursery in tribal areas for sustainable vegetable production
4.	Season and year	:	Kharif, 2020
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	2
9.	No of SC/ST Farmers and women farmers	:	1
10.	Area proposed (ha)	:	0.05
11.	Actual area (ha)	:	0.05
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Vegetable seedling production at community level is a new venture for the FPO and in future production of fruit saplings, planting materials for flower crops, plantation crops etc.,

14.	Feedback of the Scientist	:	Infrastructure is more useful to propagate f fruit saplings, planting materials for flower crops, plantation crops etc., and also the portray hybrid vegetable seedling production at community level. The structure can also be used for protected cultivation of high value low volume crops during off season to get more profit for the FPO.
15.	Extension activities on the FLD	:	Farmers training - 1

FLD – 15: Deonstration of IPM practices for management of Rugose white fly in coconut

1.	Crop	:	Coconut
2.	Thematic area	:	Crop Improvement
3.	Technology demonstrated	:	Demonstration of IPM practices for management of Rugose white fly in coconut
4.	Season and year	:	-
5.	Farming situation	:	Irrigated
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	-
10.	Area proposed (ha)	:	4 ha
11.	Actual area (ha)	:	4 ha
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	The farmers sprayed chemical insecticides which was turned out to be a temporary fix and moreover, caused ill effects like pollution, killing of natural enemies and health risks to the people involved in farm activities. The release of parasitoids and predators were found to ease, economical and risk free. But the conservation of released natural enemies following pesticide holiday in coconut farms was found to be tiresome since the application of herbicides is unavoidable in coconut.
14.	Feedback of the Scientist	:	The installation of yellow sticky trap (25/ha), release of Encarsia parasitoids (100/ac.), Chrysopha (1000/ac.) and spraying neem oil 3% on need based reduced the incidence of rugose spiraling whitefly, where the mean affected palms was 20.50 percent and intensity of the pest was low and natural parasitism ranged from

			15.00-30.25 per cent compared to farmer's practice where the mean affected palms was 82.50 per cent and intensity of the pest was high and natural parasitism ranged from 0.00-7.85 per cent. The coconut field where IPM packages were followed registered a higher mean nut yield of 2875 nuts/ha with a benefit cost ratio of 1:2.25 compared with benefit cost ratio of 1:1.50 in farmer's approach (2625 nuts/ha).
15.	Extension activities on the FLD	:	Field day – 1 Farmers training – 1, Training for extension functionaries -1

FLD – 16: Demonstration of ketocheck for diagnosis of ketosis in dairy cattle.

1.	Crop	:	Dairy
2.	Thematic area	:	Disease Management
3.	Technology demonstrated	:	Demonstration of ketocheck for diagnosis of ketosis in dairy cattle.
4.	Season and year	:	2020
5.	Farming situation	:	Semi intensive system
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	10
9.	No of SC/ST Farmers and women farmers	:	1
10.	Area proposed (ha)	:	-
11.	Actual area (ha)	:	-
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Early diagnosis of ketosis is useful for prevention and treatment and so production loss in cattle is minimized.
14.	Feedback of the Scientist	:	Ketocheck is useful for early diagnosis of ketosis especially in high yielders
15.	Extension activities on the FLD	:	

FLD – 17: Demonstration of Mastiguard for prevention and treatment of mastitis in dairy cattle

1.	Crop	:	Dairy Cattle
2.	Thematic area	:	Disease Management
3.	Technology demonstrated	:	Demonstration of Mastiguard for prevention and treatment of mastitis in dairy cattle
4.	Season and year	:	2020
5.	Farming situation	:	Semi intensive system
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	2
8.	No. of demonstrations	:	10

	(replications/farmers/beneficiaries)		
9.	No of SC/ST Farmers and women farmers	:	2
10.	Area proposed (ha)	:	-
11.	Actual area (ha)	:	-
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Mastiguard is useful for detection of mastitis and also reduces the number of days required for recovery from clinical mastitis.
14.	Feedback of the Scientist	:	Mastiguard is simple and farmer friendly kit, useful for detection of subclinical mastitis
15.	Extension activities on the FLD	:	Farmers training – 1

FLD – 18: Demonstration of 10 cent model Fodder plot to ensure balanced feeding for increasing livestock productivity

1.	Crop	:	Dairy Cattle
2.	Thematic area	:	Feed and fodder Management
3.	Technology demonstrated	:	Demonstration of 10 cent model Fodder plot to ensure balanced feeding for increasing livestock productivity
4.	Season and year	:	2020
5.	Farming situation	:	Semi intensive system
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	1
8.	No. of demonstrations (replications/farmers/beneficiaries)	:	15
9.	No of SC/ST Farmers and women farmers	:	14
10.	Area proposed (ha)	:	-
11.	Actual area (ha)	:	-
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Fodder bank especially inclusion of protein rich fodder increases milk production and growth performance in cattle
14.	Feedback of the Scientist	:	-
15.	Extension activities on the FLD	:	Field day -1, Farmers training – 3

FLD – 19: Demonstration of Arogya setu app

1.	Crop	:	Extension
2.	Thematic area	:	ICT
3.	Technology demonstrated	:	Aroghya Setu App
4.	Season and year	:	2020
5.	Farming situation	:	-
6.	Source of fund	:	ICAR – KVK
7.	No of locations (Villages)	:	-

8.	No. of demonstrations (replications/farmers/beneficiaries)	:	40
9.	No of SC/ST Farmers and women farmers	:	-
10.	Area proposed (ha)	:	-
11.	Actual area (ha)	:	-
12.	Justification for shortfall if any	:	Nil
13.	Feedback from farmers	:	Farmers felt that Aroghya Setu mobile app is highly useful especially for getting timely information on disease spread and control. Voice based information may be provided in the mobile app
14.	Feedback of the Scientist	:	Information in local and regional language need be included in the mobile app. Automatic voice based interactive response system may be included in the mobile app
15.	Extension activities on the FLD	:	Farmers training – 2

Technology Week Celebrations

Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
Gosthies			
Lectures organised			
Exhibition			
Film show			
Fair			
Farm Visit			
Diagnostic Practicals			
Distribution of Literature (No.)			Nil
Distribution of Seed (q)			
Distribution of Planting materials (No.)			
Bio Product distribution (Kg)			
Bio Fertilizers (q)			
Distribution of fingerlings			
Distribution of Livestock specimen (No.)			
Total number of farmers visited the technology week			
Others			

Training/workshops/seminars etc. attended by KVK staff

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

Name of the staff	Title	Dates	Duration	Organized by
Dr. R. Vijayan	International conference on pulses	10.02.20 to 12.02.20	3	ICAR
Dr.G.Malathi	TNAU Website updation training at AEC&RI, TNAU, CBE	13.02.2020	1	TNAU
Dr.M.Suugany a devi	Seminar on technolgies in coconut cultivation	13.02.2020	1	Dept. of Agriculture
Dr.M.Suugany a devi, Dr.G.Malathi, Dr.P.kohila	Soil health card day meeting	19.02.2020	1	Dept. of Agriculture
Dr.M.Suugany a devi	Workshop on scientific coconut cultivation technologies and value addition	27.02.2020	1	Dept. of Agriculture
Dr. N. Sriram	National KVK conference at IARI, New Delhi	27.02.20 to 3.3.20	5	ICAR
Dr. R. Vijayan	6th Annual Seed Workshop	06.03.2020 to 13.03.2020	8	Dept. of Agriculture
Dr.G.Malathi	Intrduction to weather and climate – A common man's perspective	17.06.2020 to 26.06.2020	10	ACRC, TNAU, CBE
Dr. M. Vijayakumar & Dr. R. Vijayan	Farm improvement committee meeting	25.6.20	1	JDA, Salem
Dr.G.Malathi	Financial services for inclusive growth	04.07.2020	1	KIA, Erode
Dr.G.Malathi	e-quiz on medicinal plants	10.07.2020	1	LRG Govt. Arts College for Women, Tiruppur
Dr.G.Malathi	Augmenting vegetable production through vertical farming	11.07.2020	1	KRISAT, Madurai
Dr.G.Malathi	Biodiversity conservation and its management	15.07.2020 to 16.07.2020	2	Zoological Society o India and SLS & Govt. Girls PG College, Ujjain, MP
Dr.G.Malathi	Protected cultivation – Promising technology to boost crop production during pandemic perid	17.07.2020	1	Centre for Water Resources and development and Management, Kozhikode
Dr.G.Malathi	Front line extension in Agriculture	18.07.2020	1	KIA, Erode

Dr.G.Malathi	Production Protocol for parasitoids and predators	20.07.202 to 24.07.2020	5	NIPHM
Dr. S. Suganya Kanna	Webinar on Space Technology Application in Agriculture	23.07.20	1	AC&RI, Kudumiyanmalai
PC & All sms	Annual Review Meeting 2019-20	23.07.20 to 25.07.20	3	ATARI, Hyderabad
Dr.S.Gurunathan	Tamil Nadu Rural transfromation project - EC and GB meeting	24.07.20	1	Collectorate, Salem
Dr. S. Suganya Kanna	National Webinar on Precision Farming in Agriculture	25.07.20	1	Pushkaram College of Agrl. Sciences, Pudukottai
Dr. S. Suganya Kanna	Webinar on "FAW Assessment Methodology"	28.07.20	1	Dept. of Agrl. Entomology, TNAU, Coimbatore.
Dr. S. Suganya Kanna	International Webinar on "Strengthening the Immune System against COVID19"	29.07.20	1	College of Agriculture, Sikar, Rajasthan
Dr.G.Malathi	Online certificate course on soft skills	27.07.2020 to 04.08.2020	1	Pioneer Kumarasamy College, Nagercoil
Dr. P.Kohila	International Webinar on "Strengthening the Immune System against COVID19"	29.07.20	1	College of Agriculture, Sikar, Rajasthan
Dr.G.Malathi	National webinar on plant biological interventions for climate smart agriculture	30.07.2020	1	BAU, Bihar
Dr.G.Malathi	Annona – The super fruit of 21st century	03.08.2020	1	Annamalaai University
Dr. S. Gurunathan	Online training on ICT tools for Teaching, Learning and Administration	04.08.20-10.08.20	5	University of Allahabad
Dr.G.Malathi	Flower seed production	05.08.2020	1	Annamalai University
Dr. S. Suganya Kanna	National Webinar on "Work, Work Environment an Ergonomic Perspective".	05.08.20	1	Community College and Res. Inst., Madurai.

Dr. M. Malarkodi	Work, work environment & wellness – an ergonomic perspective	5.8.2020	1	Organized by the Dept. of FRM&CS, CSC&RI, Madurai
Dr. S. Gurunathan	Webinar on Sociology of the Pandemic and Risk Theory	05.08.20	1	Institute for Social and Economic Change, Bengaluru
Dr. M. Malarkodi	International webinar on COVID 19 pandemic on world health and wealth	6.8.2020	1	Organized by CPHT, TNAU, CBE
Dr.G.Malathi	Ultra high density planting	08.08.2020	1	KIA, Erode
Dr. S. Suganya Kanna & Dr.M.Malarkodi	International webinar on "Advances in Rice Researches for Food Security and Environmental Sustainability"	13.08.20	1	Tamil Nadu Rice Research Institute, Aduthurai
Dr. S. Gurunathan	Online Short term course on IPR	18.08.20 to 22.08.20	5	NIT, Jalandhar
M. Malarkodi	Farm committee meeting organized by the SDA, Salem	27.8.2020	1	Danielpet, salem dt.
PC & All SMS	PM Webcasting of Inauguration of RaniLaxmiBai Central University Jhansi.	29.08.20	1	KVK, Sandhiyur
Dr.P.Kohila	Organic farming and organic certification	01.09.2020	1	ICAR-KVK
M. Malarkodi	ATMA – committee meeting organized by the SDA, Salem	4.9.2020	1	JDA office, Salem
Dr.G.Malathi	Post harvest management and storage technique conducted by NIPHM, Hyderabad	07.09.2020 to 11.09.20	5	PKC, Nagercoil
Dr.P.Kohila	Webinar on weather based agriculture	08.09.2020 to 09.09.20	2	online
PC & All SMS	PM launching e Gopala app and PM matsya sampada yojana	10.09.20	1	KVK, Sandhiyur
Dr.P.Kohila	Disaster management training	15.09.2020	1	ICAR-KVK
PC & All SMS	Action Plan Review	15.09.20	1	KVK, Sandhiyur
Dr.P.Kohila	Poshan Maah – Training on kitchen gardening for nutritional security	17.09.2020	1	ICAR-KVK

Dr. M. Vijayakumar, Dr. S. Gurunathan	PIMC meeting on FPOs under NABARD in Salem District	21.9.20	1	NABARD
Dr.M.Malarkodi	Application of ^{15}N tracer studies in agriculture and mass spectrometer instrumentation	22.9.2020 to 26.09.2020	5 days	Directorate of Natural Resource Management, TNAU, Coimbatore
Dr.P.Kohila	International Webinar on "Veterolegal postmortem examination"	24.09.2020 to 25.09.20	2	Online
M. Malarkodi	2nd National conference of society of krishi vigyan : Advances in sustainable agriculture	26.9.2020 to 28.9.20	3	Society of Krishi Vigyan, Sasya Shyamala Krishi Vigyan Kendra, Kolkata
M. Malarkodi	5th National conference on agricultural scientific tamil	9.10.2020 to 10.10.20	2	TNAU & Agrl. Sci.Tamil Society, New Delhi
Dr.G.Malathi	Cassava Tripartite Meeting	29.10.2020	1	Salem Collectorate
Dr. S. Gurunathan	Refresher training on Safeguard measures	05.11.2020	1	Environment cell division, PWD
Dr.G.Malathi	Scale of Finance meeting	05.11.2020	1	Salem Collectorate
Dr. S. Suganya Kanna	On farm Production of Biocontrol Agents and Microbial Bio Pesticides"	09.11.20 TI 13.11.20	5	NIPHM Hyderabad
Dr.G.Malathi	Monitory committee meeting of ATMA	12.11.2020	1	JDA office
All Staff	Extension functionaries training for AAOs on new varieties and technologies	23.11.20	1	ICAR
All Staff	Extension functionaries training for AOs on new varieties and technologies	24.11.20	1	ICAR
Dr.G.Malathi	Farmers grievances day meeting	24.11.2020	1	Salem Collectorate
Dr.G.Malathi	Agricultre Production Committee meeting	24.11.2020	1	Salem Collectorate
Dr. M.Malarkodi	15N Mass spectrometer – Hands on training	8.12.20 to 9.12.20	2	Dept. of SS&AC, TNAU, CBE
Dr. S. Suganya Kanna	Monthly Zonal Meeting-Department of Agriculture, Salem	08.12.20	1	Department of Agriculture, Salem

Dr.P.Kohila, Dr.R.Vijayan, Dr. S. Suganya Kanna, Dr. M.Malarkodi, Dr S Gurunathan	6th Agricultural Scientific Tamil Society conference	21.12.2020 to 22.12.2020	2	Virtual mode
Dr.P.Kohila	KVKs DOF – Training on Fisheries	22.12.2020	1	ICAR, Dept. of fisheries, GOI
Dr. R.Vijayan	Department of Agriculture Technical Committee meeting	22.12.2020	1	Department of Agriculture, Salem
Dr S Gurunathan	India International Science Festival	23-12-2020 & 24-12-2020	2	Virtual mode

Details of sponsored projects/programmes implemented by KVK

S.No	Title of the programme / project	Sponsoring agency	Objectives	Duration	Amount (Rs)
1	Augmentation of Seed Replacement Rate in Pulses and Oilseeds through farmers participatory Seed Production	Govt. of Tamilnadu	Provide Production subsidy to the seed production farmers To train the farmers through seed production trainings	**2020-21**	**7.14 lakhs**

Please attach detailed report of each project/programme separately

1.Farmer Field School

Title: Integrated Pest and Disease Management in coconut

Village: Akkarapalayam, Veerapandi block

Reason for FFS on Integrated Pest and Disease Management in coconut

Coconut is extensively cultivated in Veerapandi, Mecheri, Mettur, Attur, Thalaivasal, Aragalur and Vazhapadi blocks of Salem district and the farmers in these areas entirely depend on the crop for their livelihood.
The crop, coconut is usually cultivated on 80,000 hectares in the district. in the past two years, the area under coconut cultivation has come down to 30,000 hectares

during 2018-2019 due to lack of adoption in improved technologies to mitigate drought, micro nutrient deficiencies, incidence of pests (Rugose spiraling whitefly, rhinocerous beetle, red palm weevil etc.,) and diseases (Wilt), management of weeds, lack of knowledge on recent mechanization for coconut orchards which leads to high labour cost for management and harvest.

Hence this special programme has been proposed to conduct in one of the coconut cultivated blocks of Salem district, Veerapandi, village, Akkarapalayam.

Process of work done

- The field visit was conducted in Veerapandi block along with scientists of KVK, Sandhiyur to coconut farms for identification of coconut growers and facilitating farmer for FFS.
- Mr.V.Seerangan, Palampatti, Veerapandi block a progressive farmer was selected as a facilitating farmer for conducting FFS .

Week	Name of the activity	Interventions	Findings
Week 1	Pilot study, PRA and Selection of farmers	Basic concepts of FFS, Agro ecosystem analysis, major coconut growing villages and farmers in Veerapandi block and PRA was conducted.	Identified the progressive farmers and the facilitating leader for FFS. Major problems faced by coconut farmers and awareness and demonstrations required were discussed.
Week 2	Soil Sampling for need based application.	Importance of soil sampling and manure preparation and their significance of need based application in IPDM.	Demonstrated the method of soil sampling in coconut orchard Collected the soil and water samples from FFS farmers recommended need based application of fertilizers.
Week 3	Nutrient and water management in IPDM of coconut.	Role of fertilizers and water management for effective coconut farming and importance of need based application of fertilizers, micronutrients and water in pest and diseases management.	The method of application of coconut tonic was demonstrated to the farmers. The awareness on effect of root feeding of coconut tonic on reduction of mite incidence, falling of nuts and increase in size of nuts was created among the farmers.
Week 4	Pests of coconut and their Management.	Majors pests, their symptom of damage, life cycle and AESA based pest management.	The damage symptoms of rhinocerous beetle, red palm weevil, RSWF, black headed caterpillar, mite and rodents were showed for identification.

			Demonstration on "Application of *Metarhizium anisopliae"* was done in manure pits for the management of rhinocerous beetle grubs.
Week 5	Weather based Pest and diseases management.	Importance of weather based forecast for pests and diseases management in coconut.	Agro advisory apps were demonstrated to the farmers and group was created for FFS farmers to receive weekly advisory in coconut.
Week 6	Role of biofertilizer in IPDM of coconut	Biofertilizer, their importance in pests and disease incidence in coconut and their application methods.	Demonstrated the application of biofertilizers in coconut. The incidence of pests and diseases in improperly maintained coconut trees were identified and explained to farmers.
Week 7	Role of micro nutrients in IPDM of coconut.	Micronutrients their importance in pests and disease incidence in coconut and their application methods.	Demonstrated the application of micronutrients in coconut. The incidence of RSWF in properly maintained trees was compared with deficiency proned trees by the farmers.
Week 8	Rugose Spiralling Whitefly Management.	Identification of pest, symptom of damage and their management.	Methods release of predator, *Chrysopa* was demonstrated in coconut and importance of pesticide holiday was emphasized among the farmers.
Week 9	Weed as alternate hosts for pests and diseases in coconut.	Identification of weeds as alternate host for various pests and their management.	Identification of various pests like mealybugs on various weed hosts and their management using non chemicals methods for harboring their natural enemies in coconut was conducted.
Week10	Role of intercrops in IPDM.	Intercrops in coconut (Fodder) to conserve natural enemies.	The intercrops for coconut and fodder crops as intercrops to attract more natural enemies for pests and diseases management.
Week 11	Integrated diseases Management in coconut.	Identification of diseases, symptom and their management.	The major diseases of coconut *viz.*, bud rot, wilt, leafspot, stem bleeding and difference between disease and micronutrient symptoms were demonstrated to farmers.

Week 12	Redpalm weevil and rodent Management	Red palm weevil and rodent damage and their management.	Demonstrated the use of bucket trap for red palm weevil and rhinocerous beetle management. The use of various traps and baits for rodents was explained to farmers.
Week 13	Root feeding for pests and diseases management.	Importance of root feeding in management of major pests and diseases.	.Demonstrated root feeding in cocnut and the importance of waiting period after root feeding was also elaborated to the farmers.
Week 14	Farmers feed back and field day	Field day	Feedback workshop was organized in the field to facilitate the farmers to express their feedback about the intervention and field day was conducted to familiarize the activity

	

Success stories

Success Story 1:

Title	Success story on Doubling the farmers income through Farmers Participatory Certified Seed Production in Cowpea (VBN 3)
Introduction	In Salem district, cowpea is cultivated in 16,000 ha and it's an third important pulses crop followed by greengram and blackgram. This crop is cultivated throughout year in salem district but there is no new variety, since 15 years old varieties are cultivating. As per the GOI norms new high yielding varieties should promoted to increase the pulses production in India. . Hence, demonstration of Seed Production (Foundation /Certified) by farmer's participatory mode in Cowpea (VBN 3) may replace existing old variety and increase the yield as well as make awareness among the farmers to use of quality seed, that will be improve the farmer's income. Tharamangalam, Mechari and Nangavalli Blocks of Salem District are mostly cultivated pulses like Greengram and Cowpea under Rainfed condition and its average productivity of 250 to 300 kg per acre. They are getting very low yield and sell it in a low price, so the farmers getting marginal income from this crop. In order to getting higher yield as well as income seed production with new high yielding variety is the one of the method instead of grain production and it will gives the assured marketability with premium price. Hence, the farmers from ellavampatti village of tharamangalam block has been created awareness about certified seed production and under FLD programme seed production on Cowpea VBN 3 through farmers participatory mode were arranged. This will surely empower the marginal farmers livelihood. This demonstration is improved the production and post harvest technologies in an integrated manner with visible impact to catalyze increased production of pulses in the State. Besides increasing production of pulses, the seeds were

	procured from the farers under seed hub scheme and there by improve the livelihood of marginal farmers and other stakeholders.
Problem	Hence, The farmers of those blocks are looking for a high yielding pulses variety which requires less water, man power and resources besides realization of higher remuneration and also farmers unaware about certification procedure to produce good quality seed. The farmers instill confidence in relevance to pulses seed production techniques and they had been taught in details about isolation, roguing, agronomic management practices, balanced nutrition and IPM strategies at KVK, Sandhiyur.
KVK Interventions	**Intervention Process** Frontline demostration was conducted involving ten farmers to assess the seed production as well as yield potential of newly released VBN 3 Cowpea variety to the farmers fields of Elavampatti village, Tharamangalam block of Salem Dt. Breeder seeds were purchased from NPRC, Vamabn, where it was released and supplied to ten farmers and they raised during pre rabi (October 2019) under rainfed conditions. Seeds were treated with Rhizobium and *Pseudomonas fluorescence* and given to the farmers and seed filed has registered wit the seed certification. Trainings on cowpea production technology, foliar application of pulses wonder and DAP were conducted to farmers involving with Department officials. Awareness of farmers was given by arranging field days for learning the cultivation and seed production of Cowpea VBN 3 variety. The FLD intervention has changed the way they cultivate new high yielding pest and disease tolerant VBN 3 Cowpea varieties and knowing the certification. **Intervention Technology** Cowpea VBN 3 released from TNAU during 2018 is the high yielding pest and disease tolerant variety. This culture is released by NPRC, Vamban. It is a high yielding variety maturing in 75-80 days and suitable for rain fed condition. The variety produced avargae gain yield of 1013 kg/ha which is 17.2% higher yield than ruling variety (CO (CP) 7. Resistant to bean common mosaic virus, Rust and anthracnose disease.
Output and Outcome	**Impact Horizontal Spread** After the intervention, there was an increase in awareness in Tharamangalam, Nangavalli and Mechari farmers. Before this intervention, the farmers were not aware of improved variety of VBN 3 which is a suitable for rain fed condition. Also the current local variety does not produce more grain and susceptible to pest and disease. During this intervention farmers also started producing the seed production of cowpea on their own. The feedback is positive since the major challenge of resistant to mosaic virus and anthracnose disease. There is growing demand for the cowpea in nearby districts of Salem. Farmers have incorporated these techniques in routine package of practices in cowpea production. KVK, Sandhiyur observed very

good response from the beneficiaries and non-beneficiaries after the assessment, demonstration and trainings.

The neighboring farmers and nearby villages farmers visited demo field to knowhow the technology on cowpea seed production and motivated , the area under pulses seed production is increasing significantly instead of grain production in that area.

Impact Economic Gains

The VBN 3 cowpea yielded at the maximum of 11.1 q /ha and an average of 10.09 q/ha while the check recorded 8.8 q/ha. Farmer had a net return of Rs. 49518/ha with BCR of 2.17 in the demonstration while the check recorded a net return of Rs. 20300/ha with BCR of 1.62.

1	Number of blocks	1
2	Number of villages covered	2
3	Number of farmers benefitted	10
4	Seeds supplied	8kg
5	Biofertilizers	*Rhizobium*-2 kg
6	Bio control supplied	*Pseudomonas* -2 kg
7	Pulse wonder	*2 kg*

Impact on Employment Generation

Farmers got practical knowledge on VBN 3 Cowpea cultivation, quality seed production and seed certification procedures. The seed production holds good venture for the farmers along with the marketing cowpea VBN 3 varieties fetch Rs.85/kg as a seed and the local grain cost is only Rs.45/kg. This seed production has improved the livelihood of many farmers in a short period of time and many of the farmers became merchants by selling the seeds.

Details of success stories

S.No	**Particulars**	**Details**	
1	Name of the farmer	**Mr.S. Govindaraj s/o** Shunmugam	
2	Village	ELAVAMPATTI	
3	Block	Tharamangalam	
4	Address	No. 85/70, elavampatti	
5	Contact details(mobile)	Phone :9944845197	
6	Landholding	1 ha	
7	Irrigated	-	
8	Un irrigated	Rain fed	
9	Membership details		
10	Brief about individual	Involved in agriculture for more than 10 years . Aged 43 years Progressive farmer willing to take up new findings for cultivation.	
15	Impact factors	**Before adoption**	**After adoption**
	Crop / Agrl practice	CO (CP) 7	VBN 3

		Yield of crop /product	8.5 q/ha	10.10 q /ha
		Net profit	Rs 20300/ha	Rs.49518/ha
Photos	**Field inspection of the Cowpea (VBN 3) seed production plot**			
				
				

Success story – 2:

Success in desi bird farming – a farmer's success story

1. Situation analysis/Problem statement:

Salem district is having 11,37,215 number of backyard poultry. Farmers use to maintain birds in 25-30 numbers, and organized farms are very less. Occurrence of fowl pox and Ranikhet disease in poultry especially in summer season is the main reason why the farmers are not maintaining birds in a fair number of 100 – 200. These are the deadly viral diseases that incur heavy economic loss in backyard poultry due to high mortality. Although fowlpox vaccination is regularly carried out in commercial poultry farms, farmers are not aware of fowl

pox vaccination in backyard poultry. Also farmers are not aware of the brooding management practices when they want to rear more No. of day old desi chicks. Hence, it has been proposed to demonstrate Fowl Pox Vaccine and Package Practices for Backyard poultry farming to reduce the incidence of viral diseases of poultry and to increase the production by following proper brooding management and feeding management.

2. Plan, Implement and Support:

KVK, Sandhiyur conducted FLD on demonstration of fowl pox vaccine and package of practices for improved production in backyard poultry in the year 2019-20. Training on desi bird farming was conducted and insisted the importance of vaccination against Ranikhet disease and fowl pox. The scientists of KVK demonstrated the use of fowl pox vaccine in KVK as well as in farmers field. Techniques on brooding management, feeding management, disease management and hatchery management were explained and demonstrated.

3. Output:

Through the FLD, trainings and demonstrations, farmers started raising desi chicken in reasonably large number of around 100 to 200 per household. The FLD and trainings enriched the knowledge of the farmers in various management aspects of poultry production. By following proper brooding management and disease management practices, they could effectively control mortality in desi chicken and the production level increased.

One of the farmer from Karuppur village of Omalur block started rearing desi chicken and improved breeds like Gramapriya and followed effective disease management and feeding management practices and so reduced mortality.

1.	Name and address of the farmer	Tmt. K. Jaganathan S/o Krishnan Karuppur (p.o) Omalur Salem
2.	Age of the farmer (years)	70
3.	Land ownership (ac)	5.0 acres
4.	Enterprises maintained	Crops: Turmeric, lemon, coconut, sugarcane, Fodder crops – Cumbu Napier hybrid, velimasal Animal husbandry: Dairy cattle – 6 No. Sheep – 10 No. , poultry – 300 No.
5.	Farming experience (years)	More than 40 years

He maintained 100 No. of Aseel desi chicken and 200 No. of Gramapriya chicken in his farm. He followed the vaccination protocol recommended by KVK scientists – RDVF1 on 5-7th day, LaSota on 24th day and RDVK vaccination for every 75 days to 90 days starting from 75th day onwards. Vaccination against fowl pox was carried out on 42nd day. By following proper disease management practices the chick mortality was 8 % and adult mortality was only 2 %. He is selling his desi chicken for Rs. 500/kg live weight and improved desi birds for Rs.400/kg live weight and eggs for Rs. 10/egg. As an important measure in feeding management, to reduce the feed cost he is regularly feeding azolla to his birds. Feeding of azolla reduced the feed cost, as well as improved the production levels. He is having a mini

hatchery unit, and by using this, he is hatching required number of chicks for his farm use, and purchase of chicks from outside is minimized. Since he is living in peri urban area, consumers are directly purchasing his products. From these practices, he is earning Rs.15,000 as monthly income from poultry farming.

4. Outcome: He is a progressive farmer and Scientific Advisory Committee member. More than 500 famers and rural youth visited his farm and his farm is a model desi chicken farm with minimal investment. Other fellow farmer s and rural youth inspired from his farm and some of them started poultry farming as entrepreneurship activity.

5. Impact: Through animal husbandry and crop interventions he created employment and 2 labours are getting year round employment in his farm.

	
Demonstration of brooding management	**Field visit**

Success story – 3:

Success story on Swachh Bharat Mission

1.	Name and address of the farmer / applicant Telephone / Mobile Number	Th. A. Madhaiyan 6,/61, Noolathukombai Thumbalpatti (PO) Salem Tamil Nadu 636204 9025911359	
2.	Age of the farmer (years)	38	
3.	Educational Qualification	8thstd	
4.	Land ownership (ac)	2.0 acres	
5.	Crops grown/ Enterprises	Crops:Turmeric, Banana, Nerium, Paddy and fodder crops Cattle, Goat and poultry. Azolla cultivation.	
6.	Farming experience (years)	15 years	
7.	KVK interventions in Swachhtaactiivities	• Samakuttapatti village, Panamarathupatti block is the KVK adopted village under Doubling Farmers Income (DFI) project. KVK, Salem conducted mass tree planting drive and awareness created about Swachhta Bharat Mission to the members of Jarugumalai FPO. • Under Swachhta Bharat Mission training on recycling of farm waste and production of vermicompost.was conducted. • Training and demonstration on IFS was also conducted and inputs were issued.	
8.	Impact of KVK intervention	• The farmer started producing vermicompost using vermi bag given by KVK, Salem and using for all crops • He started selling the surplus vermicompost to the fellow farmers and gaining additional income. • From the vermi units he is earning Rs.22500 per year as profit. • To supply vermicompost for the increasing demand among the fellow farmers, now he established permanent concrete structures.	

	 	
	Vermicompost produciton unit established with technical support of KVK, Salem	

Success story – 4:

Introduction of new variety of Bottle Gourd PLR 2

Back ground or Situation analysis /Problem statement

Cucurbits being a more profitable crop is gaining popularization among the farmers of Salem District. Old and local varieties with poor yield in bottle gourd resulted in lesser yield and hence introduction of new Bottle gourd variety high yielding is one of the needs o the growers of pandal vegetables. Some farmers grow cucurbits for which pandal is not required. Farmers are in need of new alternate crop with short duration, high yield and income. To instigate the farmers without having any pandal facility, this variety of bottle gourd is proposed as one of the FLDs.

Plan, Implement and Support

Interventions

Process

Bottle gourd PLR 2 variety is of traditional type with round fruit shape and short neck. Fruits are light green in colour. It comes to harvest in 50-55 days after sowing. It yields about 42t/ha. It does not require any pandal or support or training system. It is moderately resistant to fruit fly, powdery and downy mildews. It is good in taste and suitable for all types of culinary preparations. Popularisation of this variety was taken through Front line Demonstration in 10 farmers field at Puthur, Panamarathupatty, Makudanchavadi etc., Salem.

Technology

Demonstrations were taken up and trainings were given on various aspects like, field preparation, ICM technologies, Integrated nutrient management, integrated pest and disease management, etc. **Mr.R.Raja s/o** Ramasamy, of Puthur Agraharaam village in Veerapandi block is one of the farmers cultivating PLR 2 bottle gourd in his field.

Output and Outcome

The highest yield recorded was 18.8t/ha in the field of farmer Raja and average yield o the other farmers was 18.5 which was 19% more yield than the local varieties. Cost of cultivation is lesser since it did not require pandal and ease of cultural practices. Regarding net

profit (CBR is 1:3), it is more Rs.1,25,000 per hectare within a crop duration of 4 months period.

Impact

Horizontal Spread

Farmers were satisfied with the ease of cultivation of this new bottle gourd variety since it is not required any pandal or supporting system and ease of cultivation technologies. Size of the fruit is smaller and more number of fruits per plant with high yield. Hence the marketability was better which fetched higher price. Mr. Raja, farmer of puthur, cultivated this crop and got more price in the market due to increased yield and appealing colour and round shape of the fruits. He gave his success as a story in the Whats app group of the farmers through which the variety was popularized and more farmers visited KVK to get the seeds of bottle gourd PLR 2 variety. So far 35 farmers approached KVK and nearly 30 kg of seeds had been procured and distributed to the farmers. Now the area under this variety is around 25 acres at Salem district.

Economic gains

Due to high yield and traditional round shape of fruit, farmers got more price in the market and also 20 % of the beneficiaries started selling the produce directly in the market. This variety has improved the livelihood of many farmers in a short period of time and many of the farmers became merchants by selling the produce directly at the consumer markets, weekly shandies and Farmers Shandies.

Bottle gourd PLR 2 FLD field of Thiru. Raja, Puthur Agraharam of Veerapandi block

Bottle gourd PLR 2 fruits harvested by the farmer Thiru Raja

CASE STUDIES

Production and distribution of Pulses seed under Seed Hub Scheme

In Tamil Nadu, Salem district has been cultivating wide veriety of p ulses auch as red gram 3978 ha, greengram 16539 ha, cowpea 25067 ha, horsegram 6056 ha, mochai 4720 ha and other pulses1318 ha with total area of 65,028 ha under pulses. In spite of availability of huge area under pulses in salem district, the production and productivity was very low due to the non awareness of high yielding and newly released pulses variety to the farmers. In order to make self-sufficient in pulses production, availability of quality seed in newly released and high yielding variety is one of the most crucial factor which ensures enhanced per unit yield of pulses in farmers field. A quality seed alone can enhance the 15% productivity, so distribution of quality seed to the farmers is very important to increases the pulses production.

Input

Considering the above facts Govt. of India has sanctioned the Pulses Seed Hub project to KVK, Sandhiyur, through the ICAR, ATARI for increasing indigenous production of pulses in india - Tamil Nadu and its sustenance. KVK, Salem act as centre of seed production will facilitate better access to improved seed and production, speed-up dissemination rates and adoption of pulses technologies. In the pulses seed hub, produced and supplied good quality (Foundation and Certified seeds) to increase the productivity of pulses and empowered the farmers as a seed producer and generated additional income through seed production.

Outcome

A total quantity of **547.32 quintal of pulses seed** has been produced from 88 farmer's field through contractual farming by KVK Sandhiyur through seed hub project as detailed below and the seed has been distributed to throughout Tamil Nadu through direct sales to the farmers, Department of Agriculture and KVKs. Established Seed Processing cum Storage godown with seed processing equipments for processing and storage of pulses seed with budget outlay of Rs 50 lakhs. The processing unit also used for the farmers for processing of their own seed.

Sl.No.	**Crop**	**Class**	**Achievement (qtl.)**		
			2017-18	**2018-19**	**2019-20**
1.	Blackgram	FS & CS	79.14	163.07	24.12
2.	Greengram	FS & CS	64.45	175.88	2.00
3.	Redgram	FS & CS	17.22	-	-
4.	Cowpea	FS	-	-	21.44
	Grand Total		**160.81**	**338.95**	**47.56**

Impact

Through the sales of pulses seed throughout the Tamil Nadu an area of 30000 ha has been covered with quality seed of latest varieties of blackgram, greengram, cowpea and

redgram (less than 10 years) and farmers got more yield and also the has been utilized for further multiplication.

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

Category	Title	Year	Additional Details/Information
TNAU	Weather based advisory to the farmers	2019	Weather based farm advisories given to all the 20 blocks of Salem district.
KVK, Sandhiyur	Mobile advisories and discussions through whatsapp groups for farmers and KVK trainees.	2020	Plant protection, bee keeping and mushroom pests and diseases management

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	Indigenous technology practiced	Purpose of ITK
1	Cassava	**Application of sweet flag** (Dusting of sweet flag powder on mealybug colonies reduced the damaged by 30-55%)	Management of mealybugs in cassava.

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

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Biological control of Rugose spiraling white fly in coconut	70	100	25,000	40,000
IPM in Maize for fall armyworm Management	220	98	23000	66000
IPDM in Onion	45	43	22000	96000
IPDM in bhendi	50	60	5550	12300
Mushroom cultivation and value added products preparation in mushroom	75	15 (Small Scale)	-	Additional income of Rs. 5,000/ month
Coconut tonic	700	60	140000	180,000
Banana booster application	500	50	97000	125000
Arka special vegetable booster	600	45	140000	180000
Protray nursery raising in vegetable crops	350	25	4000	12500
Desi poultry farming	80	70	5400/unit	12500/unit
Long duration (200 hours) skill development training on quality seed grower	20	40	15000/ acre	30000/ acre
System of Pulse Intensification	50	5	17000	24000

Impact of five select technologies assessed/demonstrated/popularized by the KVK in the district (in QRT format)

S.No.	Variety/Technology	yield (q/ha)	% Increase over FP	Cost (Rs./ha)	Gross returns (Rs./ha)	Net Returns (Rs./ha)	B:C ratio
1	IPDM for false smut disease in Paddy in samba season	59.1	12.4	38965	94660	55695	2.42:1
2.	Sorghum K 12 for higher productivity	29.1	34.6	30910	87320	56420	2.78:1
3.	Demonstration of blackgram VBN 6 with ICMP	6.62	19.5	13024	26814	13790	1.63

4.	Demonstration on seed production of short duration green gram var CO8	8.91	29.1	17183	46306	29123	2.7
5.	Demonstration of mastiguard for prevention of mastitis in dairy cattle	8.06 lit/day	10.45	26,950 /animal/ annum	68600 /animal/ annum	41,650 /animal /annum	**2.54**

Cases of large scale adoption/impact of specific technologies

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

Village	**Taluk**	**Tech/Skill Transfer**	**Adoption Percentage**	**Situation before initiation**	**Situation after initiation**	**Up scaling Measures Taken**
All clusters	All	Pulses seeds seed production	60%	Unavailability of quality seeds in pulses	Recent high yielding pulses varieties are introduced through seed hub programmme and given significant productivity. The certified seeds produced are supplied all over the state.	Quality seeds (Foundation/certified) available in KVK Salem and distributing to the farmers throughout the year.

Linkages

Functional linkage with different organizations

Name of organization	Nature of linkage
Department of Agriculture	• Execution of OFT and FLD programmes • Organization of Training programmes to farmers and extension functionaries • Soil health day programme • Technology week celebration • Uzhavar vizha programme • ATMA trainings
Department of Horticulture	• Production and distribution of quality horticulture seeds and seedlings • Organizing training programmes to farmers and extension functionaries • Organising district level mango and guava seminar • Implementation of NADP marketled precision farming • Uzhavar vizha
Department of Agrl. Marketing	• Providing agro advisory to Uzhavar sandhai • Training to extension functionaries
Agricultural Engineering Department	• Exposure visit • Demonstration of farm implements
Seed Certification Department	• Production of quality seeds • Promotion of Seed Village Programme
Sericulture	• Training to Extension functionaries • Utilizing Video Conferencing facilities
Animal Husbandry	• Implementation of IFS programme • Implementation of OFT and FLD programmes • Conducting animal health camps • Demonstration of animal components
VUTRC, Salem	• Trainings on animal husbandry • Animal campaigns
Forestry	• Training in forestry for tribal people • IFS programmes
NABARD	• Implementation of IFS, Apiculture, Mushroom and quality seed production training programme • Formation of commodity groups • Conducting NABARD sponsored CAT trainings
Lead Bank (Indian Bank, Salem)	• INSETI programmes namely mushroom, vermicompost production, IFS to bank beneficiary farmers
Department of Cooperation, TN Govt	• Market linkage for Minor millets

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
1. SBGF-Technological empowerment and employment generation on bee keeping to improve livelihood of tribal women Activities undertaken: Honey bee hives, honey processing equipment s distributed to tribal farmers	April 2018	State Planning Commission - SBGF	2037200
2. Training on Friends of coconut Activities undertaken: 20 rural youth have been given training on coconut tree climbing for entrepreneurship development	March 2020	CDB, Chennai	56500

Important Visitors to KVKs during 2020 (with photographs)

S.No.	Name and Designation	Date of visit	Purpose of visit
1.	Dr.Baskaran Principal Scientist, ATARI, Hyderabad	14.01.2020	17th SAC meeting
2.	Dr.N.Kumar, Ph.D., Vice Chancellor, TNAU, Coimbatore	14.03.2020	Jal Shakthi abhiyaan cum KVK Silver jubilee celebrations
3.	Dr.M.Jawaharlal, Ph.D., DEE, TNAU, Coimbatore	14.03.2020	Jal Shakthi abhiyaan cum KVK Silver jubilee celebrations
4.	Dr.Geethalakhsmi, Ph.D., Director of crop management, TNAU, Coimbatore	14.03.2020	Jal Shakthi abhiyaan cum KVK Silver jubilee celebrations
5.	Dr.M.Jawaharlal, Ph.D., DEE, TNAU, Coimbatore	23.10.2020	Review the KVK Activites
6.	Th.S.A.Raman District Collector, Salem	14.09.2020	Agriculture machinery mela at KVK, Salem
7.	Dr. Pannerselvam, Ph.D., Director, WTC, Coimbatore	20.11.2020	Paddy power weeder demo under TN - IAMP

8.	Dr. Masilamani Dean, ADAC&RI, Trichy	18.11.2020	Saline tolerant rice culture performance assessment
9.	Dr. S. Sundareswaran Director (Seeds), Seed Center, TNAU, Coimbatore	26.11.2020	NADP field cum seed day

Photographs

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<tr><td colspan="2">17th SAC meeting</td></tr>
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PHOTOS – Attached

Photos on performance of technologies in OFTs and FLDs, Trainings, Extension Programmes, Other Extension Activities, Important Visitors, Awards and Recognitions (KVK, Staff, Farmers)*etc*.

Jpeg/png format with good resolution for printing (300 dpi, RGB/CMYK)
Title must have the KVK Name, activity (OFT/Training/Visitor/award *etc*.) and short description