ANNUAL REPORT
1st January 2022 to 31st December 2022

1. GENERAL INFORMATION ABOUT THE KVK

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

Name of the KVK	:	**ICAR KVK MYRADA, ERODE DISTRICT**
Address	:	ICAR – Krishi Vigyan Kendra 272, Perumal Nagar Puduvalliampalayam Road Kalingiyam Post Gobichettipalayam Taluk Erode District – 638453 Tamilnadu
Phone No.	:	9486077454
Email ID	:	myradakvk@gmail.com; KVK.Erode@icar.gov.in

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

Name of the Host Organization	:	**MYRADA (Mysore Resettlement & Development Agency)**
Status of Hose Organization	:	Non-Governmental Organization
Address	:	MYRADA No.2 Service Road, Domlur Layout, Bangalore – 560 071
Phone No.	:	080 - 25353166, 25352028, 25354457
Fax No.	:	(91-80) 25350982
Email	:	myrada@myrada.org
Name of the Chairperson	:	**Shri.Arvind G.Risbud, IAS., (Rtd)**
Mobile No.	:	9449083166
Email		arvindrisbud@yahoo.com

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

Name of Senior Scientist & Head	:	**Dr.P.Alagesan**
Residential Address		20, Gandhi Nagar Gobichettipalayam Erode
Phone No.	:	04285 – 226563
Mobile No.	:	+919443897654
Email ID	:	P.Alagesan@icar.gov.in ; azhagujanani@yahoo.com

1.4. Year of sanction of the KVK (as per Official Order) : 1991

1.5. Month and year of establishment: : 1st April 1992

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

S. No.	Item	Area (ha)
1	Under Buildings	3 ha.
2.	Under Demonstration Units	1 ha.
3.	Under Crops	18 ha.
	Total	**22 ha.**

1.6. Infrastructural Development:
A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Completed			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction Completed
1.	Administrative Building	ICAR	8/20/1997	172	667821	-	-	Completed
2.	Farmers Hostel	ICAR	11/22/2011	300	3489820	-	-	Completed
3.	Staff Quarters for PC	ICAR	2/10/1993	87	199081	-	-	Completed
4.	Staff Quarters for SMS	ICAR	7/22/1998	396	1611956	-	-	Completed
5.	Vehicle Shed	ICAR	12/24/2010	46.45	198159	-	-	Completed
6.	Cattle and Poultry shed	ICAR	11/27/2012	111.50	797956	-	-	Completed
7.	Processing Unit	MYRADA	17/08/2015	60	33000	-	-	Completed
8.	Home Science Lab	MYRADA	3/25/2017	200	200000	-	-	Completed

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms covered as on 31.12.2021	Present status
Mahindra – Jeep	2017	7,99,671.00	1,86,748	Running condition
Hero Honda Super splendor TN36M1042	2009	49,964.00	48216	Running condition
Hero Honda Super splendor TN36M1017	2009	49,964.00	49407	Running condition

C) Equipment & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Soil Test Lab equipment	2004	5,18,766.00	Good Condition
Xerox cum Printer	2004	75,000.00	Not in use
Canon Digital Camera	2005	9,495.00	Not in use
Kodak Digital Camera	2005	8,155.00	Not in use
Power weeder	2007	76,960.00	Good Condition
Rotary weeder & tiller	2007	99,996.00	Good Condition
Chisel Plough	2007	8000.00	Good Condition
LCD, Computer System& Printer	2007	1,00,000.00	Good Condition
Direct Paddy Seeder	2008	4,500.00	Good Condition
Rotovator	2008	76,960.00	Good Condition
Cono weeder	2009	3,400.00	Good Condition
Fax Machine	2009	15,000.00	Not in use
Tractor	2010	4,99,800.00	Good Condition
Plant health diagnostic equipment	2010	9,99,196.00	Good Condition
Coconut tree climber	2010	2,500	Good Condition
Zero Seed Drill	2010	47500.00	Good Condition
Eepabx system	2011	26,395.00	Not in use
Generator	2011	2,79,520.00	Good Condition
Power Tiller	2011	1,41,590.00	Good Condition
Maize Dehusker	2011	44,720.00	Good Condition
Groundnut Pod Stripper	2011	24,700.00	Good Condition
Laser guided land leveler	2011	3,60,000.00	Good Condition
Bud chipper (Sugarcane)	2011	6,656.00	Good Condition
Chaff cutter	2012	19,425.00	Good Condition
Tamarind Dehuller	2014	36,750.00	Good Condition
Millet Dehuller (Centrifugal)	2014	Kind	Good Condition
Millet Dehuller (CIAE)	2014	Kind	Good Condition
Millet Destoner cum Grader	2014	Kind	Good Condition
Pulverizer	2014	Kind	Good Condition
Millet Dehusker	2015	Kind	Good Condition
Millet Mill	2015	Kind	Good Condition
Packaging Machine-Polythene Bags	2015	Kind	Good Condition
Packaging Machine-Gunny Bags	2015	Kind	Good Condition
Flour Shifter	2015	Kind	Good Condition
Millet Pulverizer	2015	Kind	Good Condition
Mridaparikshak Soil Test Kit	2015	83,000.00	Good Condition
HP Pavilion Computer	2016	32,900.00	Good Condition
HP LaserJet Printer 1020+	2016	9,000.00	Good Condition
Canon Printer LBP2900	2016	8,900.00	Good Condition

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
UPS with Batteries	2016	74,000.00	Good Condition
External Hard Disc Drive	2017	9,800.00	Good Condition
HP Scanner	2017	9,000.00	Good Condition
Podium (PAS)	2017	32,500.00	Good Condition
Photocopier with Tray	2017	54,224.00	Good Condition
Mridaparikshak Soil Test Kit	2017	86,000.00	Good Condition
Arecanut Dehusker	2018	52,000.00	Good Condition
Spiral Separator	2018	4,500.00	Good Condition
Tamarind dehuller cum Deseeder	2018	56,000.00	Good Condition
Egg Hatchery Machine (1000 eggs capacity)	2019	1,12,000.00	Good Condition
Micro-Tek UPS with Duro Power Battery (12V)	2019	36,000.00	Good Condition
Auto Clave with Laminor Air Flow (53 Ltr Capacity)	2019	1,64,993.00	Good Condition
Mini Single Twist Rope Making Machine	2019	19,234.00	Good Condition
Double twist Rope Making Machine	2019	50,740.00	Good Condition
Pulvariser - Hammer Type (Feed Mixing)	2019	1,76,000.00	Good Condition
Fermenter (100 lit Capacity)	2020	7,24,520.00	Good Condition
Banana Fiber Extraction Machine	2020	1,25,000.00	Good Condition
Milk Processing Equipment (200 Lts/Hr)	2021	7,84,000.00	Good Condition
Whirlpool Fridge 185 ltr	2021	16,600.00	Good Condition
Whirlpool Fridge 215 ltr with stand	2021	20,200 .00	Good Condition
Steel Bero 6 Feet	2021	14,600.00	Good Condition
Electronic Balance Weighing Machine	2021	21,240.00	Good Condition
Colony Counter	2021	30,680.00	Good Condition
Dell Desktop Computer & Dell Monitor 19.5"	2021	5,500.00	Good Condition
Printer - Canon Laserjet (MF244Dw)	2021	24,500.00	Good Condition
Bulk Milk Cooler BMC-500	2021	2,65,500 .00	Good Condition
Khova Machine - 130 Ltrs (Ghee processing)	2021	1,09,760 .00	Good Condition
Dairy Equipments:-			
Insulated Sintex Milk Can	2021	40,120.00	Good Condition
SS Milk Can (40 Lts Capacity)	2021	1,62,840.00	Good Condition
Milk Analyzer	2021	9,440.00	Good Condition
Butter Chumer	2021	7,080.00	Good Condition
Curd Chuming Machine	2021	7,080.00	Good Condition
Ice Box	2021	11,800.00	Good Condition
Freezer - 500 Ltrs (Blue Star)	2021	41,000.00	Good Condition
Freezer - 200 Ltrs (Blue Star)	2021	27,000.00	Good Condition
Can Brushers	2021	9,440.00	Good Condition
Cleaning Motor Assembly	2021	35,400.00	Good Condition
Cleaning Vessels - SS	2021	43,660.00	Good Condition
Banana Fiber Cutter	2021	38,704.00	Good Condition
Water Chiller Tub	2021	18,500.00	Good Condition
MS Display Shelf (W-15 Ft x H- 6 Ft)	2021	33,040.00	Good Condition

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
SS Milk Can (40 liters Capacity)	2021	67,966.00	Good Condition
Benchtop Incubator cum Orbital Shaker	2021	1,26,260.00	Good Condition
SMART SCS-300 Off Lie Cream Separator	2021	76,700.00	Good Condition
Milk Analyzer – Ecomilk Ultra	2021	70,800.00	Good Condition
Insulated Tank	2021	1,06,200.00	Good Condition
100 liters SS Storage Tank	2021	29,500.00	Good Condition
Stabilizer - 5 KVA	2021	22,125.00	Good Condition
200 LPH Holding Coil with Accessories	2021	59,000.00	Good Condition
Moisture Analyzer	2022	88,500.00	Good Condition
Refractometer	2022	6,750.00	Good Condition
Pasta Making Machine including Mixer & Motor	2022	213,580.00	Good Condition
SS Butter hurner - 20 Lts & Khoa Pan - 5 Lts	2022	57,750.00	Good Condition
Khoa Pan - 5 Lts	2022	9,975.00	Good Condition
Weighing Balance - 200 Kg	2022	22,420.00	Good Condition
Weighing Balance - 30 Kg	2022	15,340.00	Good Condition
Deep Freezer - 500 Ltrs Capacity	2022	53,100.00	Good Condition
SS Storage Tank - 100 Ltrs Capacity	2022	29,500.00	Good Condition
Vacuum Packing Machine (SMART)	2022	118,000.00	Good Condition
Refrigirator (Fridge) 30 Ltrs Capacity	2022	8,000.00	Good Condition

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

S.No.	Date	No of Participants	Salient Recommendations
1.	16.11.2022	76	Millets value added interventions of KVK can be further strengthened
2.			KVK to conduct OFT and FLDs under organic and natural farming
3.			TNAU Bio mineralizer can be popularized
4.			KVK to promote fine brand rice varieties (VGD-1, CO 55 ADT-54)
5.			TNAU crop based booster can be popularized
6.			Smart Agriculture by using artificial intelligence and IoT can be conducted
7.			Promote Eco-Tourism in the hills of Talavadi
8.			Off season Jasmine varieties can be explored
9.			Popularize small farm equipments and implements
10.			Nano urea technology can be popularized through KVK technical and extension programme
11.			Inland fish farming technology can be promoted
12.			Indigenous millets varieties (crop cafeteria) can be exhibited
13.			Medicinal, aromatic, spices and fruit crop can be promoted
14.			KVK to demonstrate Turmeric Variety BSR 3
15.			Demonstrate the Sugarcane variety CO11015
16.			KVK to conduct training on Insecticide Resistant management on major agricultural crops in Erode district
17.			Demonstrate integrated pest management in cotton for sucking pests
18.			Organize extension programme on promotion of millets
19.			Eight crops multi cereals can be promoted
20.			Camps and campaigns can be organized on Ethno veterinary in livestock
21.			Promote nutri garden through demonstration in schools and anganwadis

S.No.	Date	No of Participants	Salient Recommendations
22.			Drone technology can be demonstrated
23.			KVK can demonstrate A1, A2 milk kit of TANUVAS
24.			Nano egg guard kit can be demonstrated
25.			Demonstrate tapioca mealy bug management
26.			Handholding support can be provided for budding entrepreneurs
27.			Edible cassava variety can be demonstrated
28.			Turmeric harvester – Farm innovation can be upgraded with suitable refinement

2. DETAILS OF DISTRICT (2022)

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
Erode	-	Anthiyur Taluk
		Bhavani Taluk
		Erode Taluk
		Gobichettipalayam Taluk
		Kodumudi Taluk
		Modakurichi Taluk
		Perundurai Taluk
		Sathyamangalam Taluk
		Talavadi Taluk
		Nambiyur taluk

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

S. No	Farming system/enterprise	
1	**Command Area:**	Rice – Sesame Sugarcane – Ratoon Turmeric – Rice Banana – Ratoon Groundnut – Rice – Maize
2	**Well Irrigated Area:**	Turmeric – Maize / Chillies / Tomato Rice – Cotton
3	**Rainfed Area:**	Maize/Sorghum – Pulses Redgram/castor – Fallow

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

S. No	Agro-climatic Zone	Characteristics
1	Southern plateau and hills	The district comes under the agro-climatic zones of southern plateaus and hills. A major part of the district is covered with red soils. Alluvial soils are found in small patches along Noyyal and Bhavani rivers. The district forms part of Cauvery river basin and is blessed with a network of rivers viz., Bhavani, Noyyal, Amaravathi and their tributaries. The river Cauvery flows along the eastern border of the district. The normal rainfall of the district is 717 mm.

2.3. Soil types

S. No	Soil type	Characteristics	Area in ha
1	Red soil (Alfisol, Entisol, Ultisol)	▪ Soil rich in iron and aluminum oxides ▪ Poor in water holding capacity ▪ Soil pH varies from 5.5 – 8.5 ▪ EC ranges from 0.050 to 0.250dSm^{-1} ▪ Fertility rating – low nitrogen, medium phosphorus and high in potassium	3, 42,800
2	Black soil (Vertisol, Entisol)	▪ Black in colour ▪ Good in water holding capacity ▪ Soil pH varies from 7.5 – 8.7 ▪ EC ranges from 0.150 to 0.450dSm^{-1} ▪ Fertility rating – low nitrogen, low phosphorus and medium in potassium	1, 79,562
3	Alluvial soil	▪ Medium in water holding capacity ▪ Soil pH varies from 6.5 – 8.0 ▪ EC ranges from 0.120 to 0.370dSm^{-1} ▪ Fertility rating – low nitrogen, medium phosphorus and medium in potassium	65,295
4	Forest soil	▪ Rich in sesqui oxides	2, 28,543

2.4. Area, Production and Productivity of major crops cultivated in the district (or the jurisdiction as the case may be) for 2022

Sl.No	Crops	Area (ha)	Productivity (kg/ha)	Production (Ton)
1.	Rice (Kar)	257	4359	1120
2.	Rice (Samba)	27117	4959	134468
3.	Rice (Navarai)	1776	4120	7316
4.	Jowar (Cholam)	67	1069	72
5.	Bajra (Cumbu)	177	2333	413
6.	Ragi	4012	3666	14707
7.	Maize	16022	9883	158355
8.	Samai	16	1333	21
9.	Regram	1578	1855	2929
10.	Greengram	607	841	511
11.	Blackgram	1084	803	871
12.	Horsegram	1789	745	1334
13.	Cowpea	978	824	804
14.	Chillies	336	462	155

2.5. Weather data

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
January 2022	11.29	31.6	20.1	66.7
February 2022	0.0	32.9	23.4	64.3
March 2022	5.06	35.8	22.7	68.7
April 2022	75.19	38.4	26.2	63.2
May 2022	159.39	39.2	27.0	63.4
June 2022	75.74	34.2	21.4	65.6
July 2022	86.73	36.9	24.9	66.2
August 2022	196.57	34.7	25.1	66.3
September 2022	82.92	36.3	22.8	67.9
October 2022	298.80	35.4	20.8	73.8
November 2022	142.12	31.5	23.4	64.2
December 2022	41.71	28.4	21.5	62.1

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (2022)

Category	Population	Production (000 tones)	Productivity
Cattle	398572	212.402	2.32 lit/day
Crossbred	250385	175.057	3.026 lit/day
Indigenous	148187	37.345	1.091 lit/day
Buffalo	230004	102.302	2.11 lit/day
Sheep	560015	346 tons	-
Goats	562270	685.81 tons	-
Pigs	7288	-	-
Poultry	5180399	-	-
Desi	-	194.51 lakhs eggs	-
Improved	-	9376.49 lakhs eggs	-
Ducks	68193	-	-
Category	**Area**	**Production (tones)**	**Productivity**
Inland fish	-	520.16	-

2.7. Details of Adopted Villages

S. No.	Taluk/ Mandal	Name of the block	Name of the village	Year of adoption	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Perundurai	Perundurai	Nicham palayam	2020	Cotton	Yield loss due to sucking pests	FLD, Training, Field day
2	Gobi	Gobi	Sengarai	2020	Paddy	Yield loss due to false smut incidence	OFT, Training, Experience sharing
3	Gobi	Gobi	Vellonkovil	2019	Turmeric	Unaware of new variety	OFT, Training, Experience sharing day
4	Talavadi	Talavadi	Arepalayam	2017	French beans	Unaware of new variety	OFT, Training, Experience sharing day
5	Gobi	Gobi	Nagadevem palayam	2019	Tapioca	Unaware of new variety	FLD, Training, Field day
6	Gobi	Gobi	Kugaloor	2019	Banana	Unaware of new variety	FLD, Training, Field day
7	Talavadi	Talavadi	Talamalai and Arepalayam	2017	Cadamba tree	Unaware of new variety	FLD, Training, Field day
8	Talavadi	Talavadi	Talavadi	2018	Rosemary	Unaware of new variety	FLD, Training, Field day
9	Gobi	Gobi	Siruvalur	2019	Farm Machinery	Lack of awareness on farm machineries for Turmeric harvester	FLD, Training, Field day
10	Anthiyur	Anthiyur	Athani	2020	Farm Machinery	Lack of awareness on farm machineries for Inter cultivator cum Ridger in Banana	FLD, Training, Field day
11	Perundurai	Chennimalai	Vellode	2019	Vegetables	Unaware of Dish Garden system in vegetable cultivation	Training
12	Perundurai	Chennimalai	Varapalayam	2018	Farm Machinery	Lack of awareness on farm machineries for Stone Remover	Training
13	Anthiyur	Ammapet	Kuruchi	2018	Farm Machinery	Lack of awareness on farm machineries for Tapioca harvester	Training
14	Gobi	Nambiyur	Malaya palayam	2019	Farm Machinery	Lack of awareness on farm machineries for Mechanization in Groundnut Cultivation	Training
15	Gobi	TN Palayam	Kallipatti	2017	Dairy animals	Green fodder scarcity, no suitable low cost method for silage preparation	FLD, Training, Field day

S. No.	Taluk/ Mandal	Name of the block	Name of the village	Year of adoption	Major crops & enterprises	Major problem identified	Identified Thrust Areas
DFI villages							
1	Anthiyur	Anthiyur	Koochikallur	2018	Blackgram	Yield loss due to yellow vein mosaic virus	FLD, Training, Field day
2	Gobi	T.N.Palayam	Singiripalayam	2018	Paddy	Lack of knowledge about soil sampling techniques	Soil health camp
3	Anthiyur	Anthiyur	Koochikallur	2018	Farm Machinery	Lack of awareness on farm machineries for Stone Remover	FLD, Training, Field day
4	Gobi	TN Palayam	Singripalayam	2018	Farm Machinery	Lack of awareness on farm machineries for Inter cultivator cum Ridger & Turmeric	FLD, Training, Field day
5	Gobi	TN Palayam	Singiripalayam ,	2018	Small Ruminants	Incidence of high mortality and poor growth in young animals	OFT, Training
6	Gobi	TN Palayam	Singiripalayam ,	2018	Small Ruminants	Poor growth and nutrient imbalance	FLD, Training, Field Day
7	Gobi	TN Palayam	Singiripalayam ,	2018	Dairy animals	Green fodder scarcity, no suitable low cost method for hydroponics fodder production	FLD, Training, Field Day
8	Gobi	TN Palayam	Singiripalayam ,	2018	Bhendi	Lack of awareness nutrient management practices	FLD, Training, Field day

2.8. Priority/thrust areas

Crop/Enterprise	Thrust area
Ragi, Groundnut, Sugarcane, Turmeric, Cassava, Rosemary, Banana and French Bean	Integrated Crop Management
Cotton, Coconut, Blackgram and Groundnut	Integrated Pest Management
Paddy, Turmeric and Banana	Integrated Disease Management
Groundnut, Paddy, Cassava	Integrated Nutrient Management
Turmeric Harvester, Stone Remover and Inter cultivator cum Ridger	Farm Mechanization
Millets and Banana	Value Addition
Dairy animals	Feed and Fodder Management
Small Ruminants	Livestock Disease Management
Small Ruminants	Livestock Nutrient Management
All Crops	Natural / Organic farming promotion
Bee Keeping, Vermi Compost, Bio Input, Banana Value addition and Desi Bird Promotion	Enterprise Promotion
Banana and Vegetables	Micro Nutrient Management
All Crops	Uses of Advanced Technologies – Drone & IoT

3. SALIENT ACHIEVEMENTS

Achievements of Mandated activities (1st January 2022 to 31st December 2022)

S.No	Activity	Target	Achievement
1.	Technologies Assessed and refined (No.)	10	10
2.	On-farm trials conducted (No.)	43	43
3.	Frontline demonstrations conducted (No.)	17	17
4.	Farmers trained (in Lakh)	0.035	0.035
5.	Rural Youths trained (in Lakhs)	0.009	0.009
6.	Extension Personnel trained (No.)	850	850
7.	Participants in extension activities (in Lakh)	0.33	0.33
8.	Production and distribution of Seed (in Quintal)	29.24	29.24
9.	Planting material produced and distributed (in Lakh)	0.016	0.016
10.	Livestock strains and finger lings produced and distributed (in lakhs.)	0	0
11.	Soil samples tested by Mini Soil Testing Kit (No)	50	50
12.	Soil samples tested by Traditional Laboratory (No)	2731	2731
13.	Water, plant, manure and other samples tested (No.)	971	971
14.	Mobile agro-advisory provided to farmers (No.)	46	46
15.	No. of Soil Health Cards issued by Mini Soil Testing Kits (No.)	50	50
16.	No. of Soil Health Cards issued by Traditional Laboratory (No.)	2731	2731

Salient Achievements by ICAR KVK MYRADA

- KVK assessed and demonstrated YTP 2 Tapioca variety. Currently **400 ha areas covered** by this variety in Erode district. KVKs supplied seed materials nearby districts KVKs like Krishnagiri, Thirupur Karur to conduct demonstrations and Department of Horticulture, Modakuruchi supplied from our FLD farmers for wider disseminations.

- KVK established decentralised micro nutrient production unit, during the reporting period **7260 Kgs of Banana special and 3345 Kgs of Vegetable special** produced and supplied by covering 2418 farmers in Erode District.

- In coordination with MANAGE, Hyderabad and SAMETI, Tamilnadu, KVK conducted skill training to Input Dealers (DAESI) by covering **40 input dealers (seed, pesticide and fertilizer)**
- KVK supported **325 rural youths** through ARYA programme – Desi bird production, bio input production, vermicompost production, value addition in banana and honey enterprises.
- KVK promoted **8 FPOs** in the district for Paddy, Banana, Coconut, Millet, Groundnut and Milk value addition activities. Facilitated for mobilizing Rs. 2,45,60,000/- value of funds to established millet value addition processing centre, vegetable preservation, Weather station (IoT technology) and Milk value addition processing unit.
- KVK signed MoU with Institute of Forest Genetic and Tree Breeding (IFGTB), Coimbatore on **VVK (Van Vigyan Kendra)** in order to evaluate varietal clonal selection of 12 forest species like Cadamba, Teak, Eucalyptus and Vagai etc. The trial is laid out in 14 acres of KVK farm Talamalai and Arepalayam campus.
- KVK received 2 State Level Awards, KVK SMS received Best innovation award, KVK promoted **3 farmers & entrepreneurs and 2 FPO Awards received** for their contribution in the field of agriculture, entrepreneurship activities and innovations
- In coordination with ICAR ATARI Zone X, Hyderabad and National Bee Board, New Delhi, KVK conducted **2 trainings on Scientific bee keeping techniques** and **value addition in honey for farmers** and rural youths by covering 50 participants from Tamarakarai of Bargur hills in Anthiyur Block and Kallipatti village of TN Palayam Block
- In coordination with ICAR ATARI Zone X, Hyderabad and ICAR NBAIR Bengaluru KVK formed 3 clusters and organised training **on Promotion of stingless bee** for SC farmers by covering 150 participants from Tamarakarai of Bargur hills in Anthiyur Block; Kalipatti village of TN Palayam Block and Thatachankarai vazhi village of Chennimalai Block.
- Integrated Banana grower's federation was initiated with support of KVK and TNAU in order to promote Sustainable Banana cultivation by adopting IFS concept and value addition in Banana. **315 farmers enrolled** in the federation from Erode and nearby districts. Totally 16 branded value added products are produced with the technical support of KVK.
- In coordination with NABARD, KVK conducted **3 skill training on Value addition in milk and dairy by-products** under Livelihood Entrepreneurship Development Programme (LEDP). Awareness video documented on conservation and promotion of indigenous cow breeds in Bargur hills of Erode district.

- With the support of NABARD, Integrated tribal development project is carried out in 4 tribal villages of Bargur hills, Anthiyur Block. **163 acres were established with spices and fruits crops** viz., Coffee, Cinnamon, Nutmeg, Clove, All spices, Pepper, Tamarind, Citrus and Silver oak and for 10 landless families supported with Buffalo rearing to improve their livelihood.
- Established **IoT based automatic soil and weather station** at 2 farmers field of Erode district under NABARD project on "IoT (Internet of things) based soil and weather station for prospective agriculture use". Whatsapp group created in each villages by involving 713 farmers with support of Kazhani FPO to disseminate medium range weather forecast data and weather based agro advisories to carry out their agricultural activities
- **Eco / Agro tourism** established at Arepalayam campus with support of NABARD in order to create awareness on conservation of Biodiversity through eco-tourism.

4. TECHNICAL ACHIEVEMENTS

4.1 Details of target and achievements of mandatory activities by KVK during 2022

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
10	10	20	20	15	15	43	43

FLD (crop/enterprise/CFLDs)

No of Demonstrations		Area in ha		Number of Farmers / Beneficiaries / Replications	
Targets	Achievement	Targets	Achievement	Targets	Achievement
17	17	31	31	134	134

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	86	86	3464	3464
Rural youth	24	24	903	903
Extn. Functionaries	14	14	850	850

Extension Activities

Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement
418	418	33341	33341

Seed Production (q)

Target	Achievement	Distributed to no. of farmers
29.24	29.24	579

Planting material (Nos.)

Target	Achievement	Distributed to no. of farmers
1685	1685	142

4.2 Technology Assessments (OFTs) in Detail

OFT-1

1. **Thematic area** : **Varietal evaluation**

2. **Title** : **Assess the performance of new sugarcane variety (Co 11015) for higher productivity**

3. **Scientists involved** : **SMS (Agronomy & Agri. Engineering)**

4. **Details of farming situation:** **Irrigated condition**

5. **Problem definition:**
   Sugarcane is cultivated about 15000 ha in Erode district. In which, 90 percent area was covered with Co 86032 variety. Due to continuous cultivation of same variety, the crop susceptible to borer infestation, red rot incidence, this leads to reduction in yield. The newly released variety Co 11015 is a good ratooner and registered an increase of 18.57 % for sugar yield, 9.61% for cane yield, and 8.62% for sucrose content over the check Co 86032.

6. **Technology Assessed:**
   Technology Option 1 : CO 11015
   Technology Option 2 : CO 0212
   Farmers Practice : Co 86032

7. **Critical inputs given** : Setts of new variety – 2 ton (Rs.5000 / farmer)

8. **Results:**

Table: Performance of the technology

Technology Option	*No. of trials*	*Yield (q/ha)*	*Net Returns (Rs./ha)*	*B:C ratio*
Farmers Practice (Co 86032)	3	1112	153966.7	2.01
Technology 1 (CO 11015)		1385.3	227966.7	2.49
Technology 2 (Co 0212)		1296.3	202658.3	2.32

Technology Option	*Number of Productive tillers / plant*	*Internode Length (cm)*	*Individual cane weight (kg)*
Farmers Practice (Co 86032)	7.33	11.03	1.10
Technology 1 (CO 11015)	11.67	14.27	1.31
Technology 2 (Co 0212)	9.67	13.87	1.28

The growth and yield attributes like number of productive tillers/plant, intermodal length, individual cane weight and yield was recorded in all the trials. The data indicated that 11.67 productive tillers observed in CO11015 variety 20.68 percent over CO0212 variety and 59.20 percent over CO – 86032. Similarly the highest internodal length of 14.27 cm and individual cane weight of 1.31 kg was recorded in CO-11015.

The highest cane yield of 138.53 ton/ha was recorded in CO11015 variety, whereas in 129.6 t/ha cane yield observed in CO0212 and 111.2 t/ha cane yield observed in CO 86032. Similarly the variety CO 11015 was matured in 9-10th month from planting whereas the other varieties takes 12 months' time for maturation. From this trial, it concluded that CO11015 was performed better than the other ruling variety and it can be promoted through sugar Mills for wider area coverage.

9. **Constraints**: Nil

10. **Feedback of the farmers involved:**

    The selected farmers are actively participated in the trial. The farmers felt, CO 11015 brings maturity between 9th to 10th month from the date of planting, this variety suited for jaggery production.

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

    The variety CO 11015 performed well in term of yield and matured in 10th month from the dated of planting. Availability of the planting materials in right time is the need of hour. KVK ensured the quality seedlings availability through the trained nursery growers in the district.

OFT-2

1. **Thematic area** : **Varietal evaluation**

2. **Title** : **Assess the performance of Drought tolerant Groundnut Variety for higher productivity**

3. **Scientists involved** : **SMS (Agronomy)**

4. **Details of farming situation** : **Irrigated condition**

5. **Problem definition** :
Groundnut is the major oilseed crop cultivated in Erode district over 20,000ha, of which 60% of area is comes under rainfed situation. Continuous cultivation of same and old variety, which is not tolerant to drought especially in the mid-season to lateral drought leads to yield reduction. The farmers are not aware of the latest drought tolerant varieties released by research system. Hence, the KVK proposed the OFT on Assessing the drought tolerant groundnut variety and its performance in Erode district.

6. **Technology Assessed:**

Technology Option 1 : BSR 2
Technology Option 2 : K-1812
Farmers Practice : CO 2

7. **Critical inputs given:**
Seeds of new variety BSR 2 and K – 1812 each 25 kg @ Rs.100 / kg (Rs.5000.00 per farmer)

8. **Results:**

Table: Performance of the technology

Technology Option	*No. of trials*	*Yield (q/ha)*	*Net Returns (Rs./ha)*	*B:C ratio*
Farmers Practice	3	15.96	33608	1.76
Technology 1(BSR 2)		18.95	57309	2.14
Technology 2(K-1812)		19.64	64360	2.35

Technology Option	*Days to maturity*	*100 pod weight*	*Shelling percent*
Farmers Practice	110	96.2	74.2
Technology 1(BSR 2)	105	96.0	74.3
Technology 2(K-1812)	110	105.4	76.2

The trails indicated that, the 100 pod weight was recorded as high in K-1812 followed by CO-1 and BSR 2. The highest nut yield of 19.64 quintal /ha recorded in K-1812 which was 3.4 percent higher than BSR 2 and 23.06 percent higher than the farmers practicing variety. Similarly 76.2 shelling percent was observed in K-1812, 74.3 percent in BSR 2 and 74.2 percent observed in Co -2 variety. From the trial it was concluded that K-1812 performed well in the Erode climatic conditions and further it can be popularized through frontline demonstration and mini kit programme.

9. **Constraints:** Nil

10. **Feedback of the farmers involved:**

The selected farmers are actively participated in the trial. The farmers felt that more number of pods and yield has been recorded in K – 1812 variety rather than BSR 2 and CO 2. The variety K-1812 suited well in both the conditions and the variety was preferred among the Dryland farming community.

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

The variety K-1812 performed well in the on farm trial. The availability of the seeds are ensured through KVK promoted Perundurai FPCL.

OFT-3:

1. Thematic area : **Varietal Evaluation**

2. Title : **Assess the performance in Turmeric new varieties**

3. Scientists involved : **SMS Horticulture**

4. Details of farming situation:
The farmers selected from Avaiyar palayam and Vellan kovil villages from Gobichettipalayam block of Erode District. The Turmeric crops are cultivated with the assured irrigation systems by the selected farmers. The Turmeric was cultivated under the red soils. The showing was completed Kharif season i.e., by second fortnightof May 2019 by using rhizomes. The trial was focused on assessment of different varieties of turmeric in erode district climatic condition. The trial farmers were linked with FPO and farmers club for seed rhizome supply for further area expansion. During the cropping period the block receives a cumulative rainfall of 714 mmwith 42 rainy days.

5. Problem definition / description:
Turmeric is an important commercial crop in Erode district with the coverage of more than 10,000 ha area. The farmers are continuously cultivating same turmeric variety viz. Erode local, which leads to yield reduction and provideslow curcumin content and fetched low market price. Since it is long duration varieties are required more inputs like water, inputs and labour cost. The farmers expect area suitable for high yielding and resistant rhizome rot diseases. Based on that, KVK conducted On-Farm Trail on "Assess performance of Turmeric varieties in the District.

6. Technology Assessed

Farmers Practice : Erode local
Technology Option 1 : BSR-3 released by TNAU, Coimbatore
Technology Option 2 : IISR Pradeepa: released by IISR, Calicut

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

Sl#	Critical inputs	Quantity (In Kg.)	Value (Rs)	The farmers supported with Rs. 22500.00 worth disease free rhizomes and Turmeric booster.
1.	Rhizomes	1000	20000.00	
2.	IISR turmeric special	10	2500.00	

Table: Performance of the technology

Technology Option	No. of trials	Yield (t/ha)	Net Returns (Rs/ha)	BC ratio	Disease incidence	Tiller / clump
Technology Option1: BSR-3	3	29.94	156868	1.84	9	3
Technology Option 2: Pradeepa		26.91	108767	1.58	11	3
Farmer practices: Erode Local		25.46	54370	1.29	12	2

9. Constraints: Nil

10. Feedback of the farmers involved:

The variety BSR-3 recorded better yield than the other two varieties. The rhizome rot disease incidence was observed less in BSR-3 variety. Since this variety is thrives well in any kind of climatic condition, it was recommend that, this variety is suggested to cultivate in other places of Erode district

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

It is new variety and suitable to Erode district (Hilly region) agro climatic condition. The research institution can support KVK for seed production, and it will help to meet the demand of farmers need in the near future.

OFT-4

1. **Thematic area : Varietal Evaluation**
2. **Title : Assess the performance of recent French beans varieties**
3. **Scientists involved : SMS (Horticulture)**
4. **Details of farming situation: Irrigated condition**

   Farmers selected from Bargur Village from Anthiyur block of Erode District. The French beans crops are cultivated with the assured irrigation systems by the selected farmers. The crop was cultivated under the red soils. The trial was initiated in the Rabi season.

5. **Problem definition / description:**
   French bean is predominant crop in the hilly regions of Erode district. Since it is short duration and remunerative crop and cultivating this crop by Small and Marginal farmers for throughout the year. It is cultivated in 2000 ha. For the past 15 years, the farmers are cultivating the same variety (Arka komal) and resulted in poor yield. Consumer preference was low for this variety due to its high fibre content and stringy character. The farmers are not aware of the newly released variety named Arka Arjun and its advantages such as early harvest in 45 days, pods are flat, smooth, long (17-18cm) and crisp with less parchment. The farmers expect area suitable for high yielding with market preference and resistant rhizome rot diseases. Based on that, KVK conducted On Farm Trail on "Assess the performance of recent French beans varieties in the District.

6. **Technology Assessed:**
   Farmers practices : Arka komal
   Technology Option 1 : Ooty -3
   Technology Option 2 : Arka Arjun released from IIHR Banagalore

7. **Critical inputs given:**

Sl.No	Critical inputs	Quantity (In Kg.)	Value (Rs)	The farmers supported with Rs. 28600.00 worth of seeds and Vegetable special.
1.	Seeds	100	25000.00	
2.	IIHR Vegetable special	20	3600.00	

8. Results:

Table: Performance of the technology

Technology Option	No.of trials	Yield (t/ha)	Net Returns (Rs./ha)	BC ratio
Farmer practices : Arka komal	3	10.2	224840	3.37
Technology Option 1: Ooty-3		13.7	287700	4.04
Technology Option 2: Arka arjun		13.1	269780	3.85

9. Table: Data on Other Parameters:

Technology option	Parameter		
	100 pod weight/ Gram	Disease incidence %	Pod length
Farmer practices Arka komal	503	12	10.02
Technology 1; Ooty -3	559	08	13.88
Technology Option2: Arka Arjun	531	09	11.02

10. Description of the results:

The trial on "Performance Assessment of Recent French beans varieties" was taken up during the Rabi season 2022 in 3 farmer's fields in Bargur village of Anthiyur block of Erode District. Before implementation of the trails, the selected farmers were trained on scientific French beans cultivation practices. The farmers provided with good quality seeds and Arka vegetable special, which was procured from IIHR, Bangalore and TNAU, Coimbatore. The farmers asked to adopt the seed treatment with bio fungicides and bio fertilizers. The farmers extended with regular technical advice from KVK and maintained the crop growth in healthy conditions.

The trials indicated that the duration of the crop 65 -70 days recorded the Beans varieties. The 100-pod weight was recorded as 559 gram in Ooty -3 than 531gram in Arka Arjun, 503 gram in Arka komal. Pod length was recorded as 10.02 cm in Arka komal, 13.88 cm in Arka Arjun and 11.02 cm in Arka Sharath.

11. Feedback of the farmers involved:

Overall performance of Ooty-3 variety is good in terms of pod length, colour and yield potentiality. It can be popularized through Frontline Demonstration programme to benefit more farmers of hilly area

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

It is a new variety and suitable to Erode district (Hilly region) agro climatic conditions. The research institution can ensure the availability of seeds to the farmers in time.

OFT-5

1. **Thematic area** : **Integrated Disease Management**

2. **Title** : **Assessment of Sigatoka leaf spot management in Banana**

3. **Scientists involved** : **SMS (Plant Protection) & SMS (Horticulture)**

4. **Details of farming situation:**

The trial was laid out during Kharif 2022 in the farmers field under irrigated farming situations at Kallipatti village of TN Palayam Block. The soil of the trial plots were red soil in nature and adopted the spraying of fungicides frequently for managing the disease incidence, which reduced the yield of the crop.

5. **Problem definition / description:**

Banana is being cultivated around 15000 ha in Erode District. While cultivating the crop farmers are facing the disease incidence, namely sigatoka leaf spot and rhizome rot incidence, which plays a major role. The farmers are advocating the practices of spraying the fungicides frequently in the indiscriminate way. Since, the occurrence of the disease is more and management strategies are need of an hour. Hence, KVK has proposed this intervention on management of leaf spot disease by using farmer innovated technology promoted by KVK and TNAU technology for the benefit of the banana growing farmers

6. **Technology Assessed:**

Farmer Practice : Application of Fungicides
Technology Option-1 : Spraying of Bio Formulation (Salute) @ 5 ml / litre from 4th month of planting
Technology Option-2 : Foliar spray of *Bacilius subtillis* @ 0.5% (3 sprays) at 15 days interval

7. **Critical inputs given:**

Sl.No	Critical inputs	Quantity (Numbers)	Value (Rs)	The farmers supported with Salute Bio formulation and *Bacillus subtilis* worth of Rs. 12,000.00
1	Salute Bio formulation	15 litres	7,000.00	
2	*Bacillus subtillis*	20 Kgs	5,000.00	

8. **Results:**

Table: Performance of the technology

Technology Option	No.of trials	Yield q/ ha	Net Returns (Rs. /ha)	B:C ratio	Disease Incidence Percentage
Farmers Practice: Application of Fungicides	5	183.56	104382.6	1.63	17.23
Technology 1: Spraying of Bio Formulation (Salute) @ 5 ml / litre from 4th month of planting – Farmer Innovation technology		192.07	157752.4	1.99	7.78
Technology 2: Foliar spray of *Bacilius subtillis* @ 0.5% (3 sprays) at 15 days interval, TNAU 2020		190.75	134159.9	1.83	8.02

Description of the results:

The results revealed that the spraying of Bio formulation (Salute) recorded an yield of 192.07 q/ha with the disease incidence percentage of 7.78 whereas in foliar spray of *Bacillus subtilis* treated plot the yield recorded was 190.75 q/ha with the disease incidence percentage of 8.02. In farmers practices the yield observed was 183.56 q/ha and disease incidence percentage was 17.23. The result indicated by farmer innovative Bio formulation (Salute) would manage the leaf spot disease in Banana crop

9. Constraints: Nil

10. Feedback of the farmers involved:

Based on the result farmers felt farmer innovative Bio formulation technology had manage the disease incidence in Banana crop. Further farmers also felt that this technology can be popularized for further adoption.

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

Based on the result it was understand that farmer innovative technology would manage the leaf spot disease in Banana crop. Further awareness has to create to the extension functionaries of State Department of Horticulture on the usage and application of the farmer innovative bio formulation technology for wide spread adoption of technology.

OFT-6:

1. **Thematic area : Varietal Assessment**

2. **Title : Assess the performance of Finger millet varieties for higher productivity**

3. **Scientists involved : SMS (Soil Science & Agronomy)**

4. **Details of farming situation:**

The trial was taken up in the dry land farming system during the Rabi season of 2022 in Semmadapalayam village of Ammapet block.

5. **Problem definition / description:**

Finger millet is an important millet crop cultivated over 5000 ha in Erode district. The farmers are continuously cultivating the same variety (GPU 28) for longer period which leads to reduction in yield and farmers are also not aware of newly released varieties. To address this, ICAR KVK MYRADA conducted the OFT on "Assess the Performance of Finger millet varieties for higher productivity".

6. **Technology Assessed:**

Farmer Practice : GPU 28
Technology Option-1 : ATL-1
Technology Option-2 : ML-365

7. **Critical inputs given:**

Critical Inputs	Quantity	Value (Rs)
Ragi seeds	20 kg	4000.00
Biofertilizers	10 litres	2000.00

8. **Results:**

Performance of the technology

Technology Option	*No. of trials*	*Yield (t/ha)*	*Net Returns (Rs./ha)*	*B:C ratio*
Farmers practice	*5*	2.54	25700	2.23
Technology Option 1: ATL 1		2.98	39500	2.86
Technology Option 2: ML-365		2.8	36200	2.74

The trial has been conducted during Rabi season 2022 in order to assess the performance of finger millet varieties for higher productivity. The beneficiaries selected from Semmadapalayam in Ammapet block of Erode District. The technologies consisted of assessing the new varieties in finger millets viz., ATL-1 and ML-365. The selected farmers were trained on ICM practices in Ragi. The trial initiated during the month of September 2022. The critical inputs provided to the farmers participating in the trial and the KVK officials periodically visited and provided advisory services during the entire trial process.

The results indicated that the highest grain yield of 2.98 t/ha observed in ATL-1 variety and there was 17 percent yield increase over the farmers practice (GPU 28). The highest net returns recorded in Technology option 1 with Rs.39500 /ha followed by Technology option 2 (Rs.36200/ha). Farmers practice recorded the lowest net returns of Rs.25700/ha.

9. **Constraints**: Nil

10. Feedback of the farmers involved:

ATL-1 finger millet variety produces more number of productive tillers, bold type of seeds, drought tolerant and high yielding. The ATL-1 can be popularized through Frontline Demonstration programme to benefit more farmers in the district.

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

In coordination with the state department of agriculture, ATL-1 Ragi variety can be popularized through various awareness and extension programme for the wider dissemination and large scale adoption.

OFT-7:

1. **Thematic area** : **Crop Production and Management**

2. **Title** : **Assessment of NOVEL organic liquid for higher yield in Groundnut**

3. **Scientists involved** : **SMS (Soil Science and Agronomy)**

4. **Details of farming situation:**

The trial was laid out during Rabi season 2021-22 at Varapalayam village of Gobi block, Erode district and the sowing was taken up in the month of December 2021 under irrigated farming situations. The soil of the trial plots are red sandy soil in nature with the available soil nutrient level of 198 kg, 11.5 kg and 270.5 kg/ha of available Nitrogen, Phosphorus, Potassium respectively.

5. **Problem definition / description**

Groundnut is an important oilseed crop cultivated over 15000 ha in Erode district. Farmers are cultivating Groundnut crop with macronutrients application alone leads to multi-nutrient deficiencies named sulphur, iron and zinc deficiency in soil as well as in plants. With this background, KVK conducted trial on Novel organic liquid application in groundnut to overcome the problem and to provide appropriate technical solution by this trial to Groundnut farmers.

6. **Technology Assessed:**

Farmer Practice	:	Non application of Foliar Nutrition
Technology Option-1	:	Foliar Nutrition of NOVEL organic liquid nutrient - 2ml/litre – 2 times spraying
Technology Option-2	:	Foliar spraying of TNAU Groundnut Rich @ 4 kg/acre during Flowering and Pod formation stage

7. **Critical inputs given:**

Sl.No	Critical inputs	Quantity	Value (Rs)
1	NOVEL organic liquid	20 litres	8000
2	Groundnut rich	20 kg	5000

8. **Results:**

Table : Performance of the technology

Technology Option	No. of trials	Yield (q/ha)	Net Returns (Rs./ha)	B:C ratio
Farmers Practice: Non application of Foliar Nutrition	*5*	21.6	50300	1.91
Technology 1 : Foliar Nutrition of NOVEL organic liquid nutrient - 2ml/litre – 2 times spraying		25.8	63500	2.19
Technology 2 : Foliar spraying of TNAU Groundnut Rich @ 4 kg/acre during Flowering and Pod formation stage		24.7	58200	2.06

Description of the results:

The on-farm trial "Assessment of NOVEL organic liquid for higher yield in Groundnut" was taken up during the Rabi season 2021-22 in 5 farmers' field at Varapalayam village of Gobi block, Erode district. Before implementation of the trial, the farmers trained on nutrient management in Groundnut and importance of nutrient mixture for yield enhancement. The farmers provided with NOVEL organic liquid and TNAU Groundnut rich for foliar spraying. The scientists from KVK provided regular advisory services for efficient implementation of the trial.

The trial indicated that, foliar spraying of NOVEL organic liquid at 15 days intervals (2 times) significantly reduces the nutrient deficiency and thereby increasing the yield of Groundnut. Foliar spraying of NOVEL organic liquid (Technology Option 1) recorded yield of 25.8 q/ha and 21.6 q/ha yield recorded in farmers practice with the yield increase of 19 percent.

The highest Net returns (Rs.63,500/ha) and benefit cost ratio of 2.19 was recorded in Technology Option 1 whereas Rs. 58,200 /ha Net returns and 1.91 BCR recorded in farmers practice. Based on the above results, Foliar spraying of NOVEL organic liquid 2 ml/litre as 2 times spraying significantly increases the pod yield.

9. **Constraints**: Nil

10. **Feedback of the farmers involved:**

Farmers actively involved in the trial and expressed that, foliar spraying of NOVEL organic liquid and TNAU groundnut rich reduces micronutrient deficiency and increases pod yield of Groundnut.

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

NOVEL organic liquid is contains combination of nutrients which improves the pod yield, moreover it is cost effective as compared to Groundnut rich. Farmers can avail the technology for the forthcoming seasons from KVK.

OFT-8

1. **Thematic area** : **Nutrient Management**

2. **Title** : **Assessment of mineral mixture on growth performance in small ruminants**

3. **Scientists involved** : **SMS (Animal Science)**

4. **Details of farming situation**:

The trial conducted in Koochikallur and Singiripalayam villages of Erode district. Small ruminants (Goat) rearing are major livelihood activity in this region. Most of the farmers depend mainly on open grazing system.

5. **Problem definition / description:**

Since grazing small ruminants in open system (extensive) led to several problems like poor nutrient management and deficiency diseases. This causes poor weight gain and weaker kids causing early mortality in kids and economic loss to farmers.

6. **Technology Assessed:**

Farmer Practice : Common salt
Technology Option-1 : NIANP Mineral Mixture
Technology Option-2 : TANUVAS Mineral Mixture

7. **Critical inputs given:**

Sl.No	Critical inputs	Quantity (Kg)	Value (Rs)
1	NIANP Mineral Mixture	45	9000
2	TANUVAS Mineral Mixture	45	9000

8. **Results:**

Table : Performance of the technology

Technology Option	No. of trials	Body weight gain (Kg)	Mortality (%)	B:C ratio
Farmers Practice (Common Salt)	10	2.5	12	1.26
Technology 1 NIANP Mineral Mixture		4.15	4	1.45
Technology 2 TANUVAS Mineral Mixture		4.38	4	1.48

Description of the results:

The on farm trial was taken up in 10 farmers field with 50 goats (5 goat per trial) at Koothikallur and Singiripalayam DFI village. Before implementation of the trial, the farmers trained on various aspects of scientific goat rearing, importance of mineral mixture and azolla. The farmers given 5 Kg of mineral mixture for the trail for a period of 6 months. The scientists from KVK provided regular advisory services for efficient implementation of the trial.

The trial indicated that, feeding of mineral mixture regularly in diet caused 60-70% increase in body weight compared to goats, which were only fed with common salt. It was observed that, mortality of kids obtained from mothers fed with mineral mixture significantly decreased to 30% compared to farmer practice.

The trial revealed that the goat gained additional 4.15 Kg in Technology option 1 and 4.38 Kg in Technology Option-2 compared to 2.5 Kg in farmer practice. The overall performance of TANUVAS mineral mixture in small ruminants had good result.

9. **Constraints:** NIL

10. **Feedback of the farmers involved:**

The farmers felt that, feeding of mineral mixture drastically improved the weight gain and decreased the mortality in kids.

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

The performance of TANUVAS mineral mixture is good and the availability of mineral mixture is ensured through VUTRC and KVK.

OFT-9

1. **Thematic area** : **Value addition**
2. **Title** : **Assessing the suitable Banana variety for Supplementary Nutri mix Technology**
3. **Scientists involved** : **SMS (Home Science)**
4. **Details of farming situation** : **Irrigated**
5. **Problem definition :**

Banana growers are not involving in value addition. Sometimes 50% matured banana are getting waste when the trees fallen due to wind and other natural calamities, those banana can be used for value addition. Hence, KVK conducted OFT on Suitable banana variety for supplementary nutri mix.

6. **Technology Assessed:**

Farmer practice : Nil
Technology Option-1 : Nutrimix technology with nendran variety
Technology Option-2 : Nutri mix technology with kadhali variety

7. **Critical inputs:**

Pearl millet, Ragi, Roasted bengal gram, Nendran banana flour, Kadhali and jaggery distributed for the worth of Rs.3000/- for one trial and for 3 trials Rs.4500/-

8. **Results:**

Table : Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./Kg)	B:C ratio	Data on Other performance indicators*
Farmers Practice	3	-	-	-	-
Technology Option-1: Nutri mix technology with Pearl millet, roasted bengal gram , nendran raw banana flour, and jaggery		-	330/kg	2.22	Drying time-36 hours in sundrying methods for raw banana slices Colour appearance is better when compared to Kadhali raw banana flour
Technology Option-2: Pearl millet, Ragi, Roasted bengal gram,Kadhali raw banana flour banana flour and jaggery		-	260/ 500 240/kg	1.92	Drying time-30 hours in sundry method Taste is lesser when compared to nendran variety banana flour

The trial has been conducted in order to assess the performance of the raw banana flour variety in nutri mix preparation. It has been found that, the appearance and taste of the Nutri-mix is better when compared to Kadhali variety. Net return is more in Nendran variety based nutri mix when compared to kadhali variety. The women farmers and entrepreneurs has great scope in marketing of the nutri mix products and to get better income. The Kazhani farmers producer company is marketing the product in order to support the banana growers in the district.

9. **Constraints:** Nil

10. Feedback of the farmers involved:

Nutri mix of Kadhali variety taste is lesser when compared to Nendran variety

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

The varietal based, proportionate banana flour inclusion in the nutri mix could be considered in the future product development.

OFT-10

1. Thematic area : Value addition

2. Title : Assessing the suitable Drying technology for millet pappad drying

3. Scientists involved : SMS (Home Science)

4. Details of farming situation : -

5. Problem definition:

In the hilly areas farmers are cultivating millets and farm women are doing finger millet pappad preparation as income generation programme for their livelihood activities. But they are drying the pappads in an unhygienic method and it would lead to health hazards for consumers. Hence, KVK conducted trial on assessment of suitable drying methods for millet Pappad with FPO farmers in the Arepalayam hilly regions of Talavadi region.

6. Technology Assessed:

Farmer practice : Sun Drying
Technology Option-1 : Solar dryer
Technology Option-2 : Electric dryer

7. Critical inputs given:

Ragi, Urd dhal, spices for the distributed the trial women for the worth of Rs.3000/- for one trial and total amount of Rs.9000/- for three trials.

Table : Performance of the technology

Technology Option	No.of trials	Yield (q/ha)	Net Returns (Rs./Kg)	B:C	Data on Other performance indicators*
Farmers Practice: Sun Drying	3	Sundrying	330/kg	2.23	Drying time-48 hours in sundrying methods for millet pappad drying
Technology Option-1 Solar dryer		-	400/kg	2.74	Drying time-30 hours in sundrying methods for millet pappad drying Colour appearance is good when compared to electric dryer
Technology Option:2 Electric dryer		-	275/kg	2.49	Drying time-12 hours in electric dryer Taste is lesser when compared to solar dryer

The trial conducted to support the hilly region of Arepalayam area to assess the suitable drying methods. Portable solar dryer found as better result in colour and quality when compared to sun and electric drying.

8. **Constraints:** Nil

9. Feedback of the farmers involved:

Appearance of pappad is better in solar dryer when compared to electric and sun drying

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

Low cost portable pappad solar dryer can be promoted in hill areas for tribal livelihood development by government programme with subsidy scheme.

4.3 Frontline Demonstrations in Detail

a. Follow-up of FLDs implemented during previous years

S. No	Crop / Enterprise	Thematic Area	Technology demonstrated as follow up from OFT	Feedback sent to research system	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
						No. of villages	No. of farmers	Area in ha
1	Finger millet	ICM	Short duration variety ML365 & CO-15	Submitted and KVK initiated seed production with department	Demonstration and mini kit programme	19	3015	1950
2	Black gram	ICM	Variety along with IPNM practices	Submitted for ensuring the availability of quality seeds	Method demonstration	42	810	550
3	Green gram	ICM	Short duration variety CO-8	Submitted and initiated seed production with farmers group	Method demonstration	28	450	180
4	Sugarcane	ICM	Variety CO-0212	Quality planting material availability	Demonstration	12	5128	3268
5	Cassava	ICM	Yethapur-2	Planting material produced with the support of extension system	Demonstration	32	650	400
6	French beans	ICM	Arka Arjun	Seed material produced with the support of extension system	Demonstration	48	2700	1930
7	Maize	IPM	Fall Army Worm Management	Submitted and KVK initiated the bio input production	Demonstration	26	3724	1490

b. Details of FLDs implemented during the reporting period

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Farming situation	Source of funds	No. of locations	No. of demo	No. of SC/ST farmers	Area (ha)		Justification for shortfall if any
										Proposed	Actual	
Oilseeds												
1	Groundnut	IPDM	IPDM in Groundnut	Rabi	Rainfed	ICAR	1	10	-	4.0	4.0	-
Pulses												
2	Blackgram	IPM	IPM in Blackgram VBN 8	Kharif	Irrigated	ICAR	1	5	-	2.0	2.0	-
Cereals												
3	Paddy	INM	INM in Paddy cultivation	Rabi	Irrigated	ICAR	1	10	10	4.0	4.0	-
Millets												
4	Finger millet	Varietal Demonstration	Demonstration on finger millet variety ML – 365	Kharif	Rainfed	ICAR	1	10	-	4.0	4.0	-
Fruit												
5	Banana	Varietal Demonstration	CO-2	Kharif	Irrigated	ICAR	2	5	1	2.0	2.0	-
Aromatic Crop												
6	Rosemary	Varietal Demonstration	Ooty -1	Kharif	Irrigated	ICAR	1	2	1	1.0	1.0	-
Spices and Condiments												
7	Turmeric	IDM	IDM for Rhizome Rot Management in Turmeric	Kharif	Irrigated	ICAR	1	5	-	2.0	2.0	-
Plantation Crop												
8	Coconut	IPM	IPM for Rugose spiraling whitefly management	Kharif	Irrigated	ICAR	1	10	-	4.0	4.0	-
Tuber Crop												
9	Cassava	INM	Cassava special	Kharif	Irrigated	ICAR	2	10	-	4.0	4.0	-
10	Cassava	Varietal Demonstration	Yethapur-2	Kharif	Irrigated	ICAR	2	5	1	2.0	2.0	-
Farm Mechanization												
11	Farm Machinery	Farm Mechanization	Stone Remover	Kharif	Rainfed	ICAR	1	4	-	1.0	1.0	-
12	Farm Machinery	Farm Mechanization	Inter Cultivator cum Ridger	Kharif	Irrigated	ICAR	1	4	-	1.0	1.0	-
13	Farm Machinery	Farm Mechanization	Turmeric Harvester	Rabi	Irrigated	ICAR	1	4	-	1.0	1.0	-

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Farming situation	Source of funds	No. of locations	No. of demo	No. of SC/ST farmers	Area (ha)		Justification for shortfall if any
										Proposed	Actual	
Livestock												
14	Cattle	Nutritional management	Demonstration of low cost feed formulation using agro-industrial byproducts	-	Extensive	ICAR	2	10	4	20 animals	20 animals	-
15	Poultry	Production and management	Demonstration of use of shell grit for better egg quality and hatchability	-	Extensive	ICAR	2	20	3	100 Birds	100 Birds	-
16	Mushroom	Varietal demonstration	Arka OM1	-	-	ICAR	3	10	2	250 Beds/Batch	250 Beds/Batch	-
17	Immune Boosting Herbals	Health & Nutrition	Immune Boosting Herbal Plants	-	-	ICAR	5	10	-	2 Cents/Demo	2 Cents/ Demo	-

Feedback from Farmers:

S. No	Feed Back
1	**Paddy:** Adoption of integrated nutrient management practices along with new variety CO 52 improved the grain and fodder yield of paddy crop. The sequential follow up advisory services made by the KVK scientist helped to adopt all the recent technologies in time.
2	**Finger millet**: Farmers expressed that, ML 365 finger millet variety performed well compared to the existing variety GPU 28. Uniform maturity was observed in ML 365 variety.
3	**Blackgram:** Farmers expressed that the combining all the integrated pest management practices attains the good yield and reduces the pests incidence
4	**Groundnut** : Farmers expressed that the combining all the integrated practices attains the good yield and better income
5	**Turmeric :** Farmers felt that the rhizome treatment had reduced the disease incidence and fetches the yield with better income
6	**Coconut**: Farmers expressed by combining the IPM modules had reduces the pests incidence and attains the nut yield which provided the better income.
7	**Banana:** Farmers felt that the CO2 variety performance well in terms of yield than Neypovan
8	**Cassava:** Farmers felt that the Cassava variety YTP2 performance well in terms of yield and CMD than Mulluvadi variety
9	**Cassava**: Farmers expressed that, foliar spraying of CTCRI cassava special reduces the nutrient deficiency and improves the tuber yield and starch content.
10	**Rosemary:** Farmers expressed that, Ooty -1 shown better yield than local variety
11	**Low cost feed for livestock**: Use of agro-industrial by-products like tapioca thippi, gram chunni along with mineral mixture reduced the feed cost and better performance.
12	**Poultry:** Inclusion of low cost shell grit in feed as increased the egg shell quality leading better hatchability and shelf life of egg. 16-20% increase in hatchability was observed when shell grit were used as calcium supplement
13	**Stone Remover:** It helps the land suitable for cultivation; Helps to increase the moisture conversation of the land
14	**Inter cultivator cum Ridger in Banana cultivation:** Help to reduce the labour dependency and inter cultural operation
15	**Turmeric Harvester:** Helps in drastic reduction in labour cost and time consumption.
16	**Mushroom:** Framers expressed that the continuous supply of ARKA OM-1 variety could be ensured by research station and spawn cultivation training could be arranged for mushroom entrepreneurs
17	**Immune Boosting Herbal Garden**: The family members harvested herbs from twenty herbal plants to cure common ailments like fever, cold, indigestion problem and they reduces the medical expenses from Rs.2000 to 3000 /- per year. Some plants helps to increase the immunity power like checkruminias, Moringa, Curry leaf etc. The demonstration motivated them to practice our indigenous technology treating common ailments at family doorsteps

Feedback of the Scientist:

S. No	Feed Back
1	**Paddy:** Adoption of new variety Co 52 along with integrated nutrient management practices improved the productive tillers increased the grain yield of the crop. Uniform maturity was noticed in the INM adopted field. For further dissemination of the technology in the district, KVK organized training programmes and provided advisory services through newspapers coverage on INM practices
2	**Finger millet:** The variety ML 365 performed well in the Geermalam and Bargur region when compared to GPU 28. Neck blast tolerance was also observed in ML365 variety. KVK planned to promote this variety in wider area in association with Department of Millets, TNAU, Coimbatore
3	**Black gram**: Demonstration on IPM practices in blackgram increases the yield up to 17 percent than the farmers practice.
4	**Groundnut**: Demonstration of IPDM practices in Groundnut increases the yield of the crop up to 30 percent than the farmer practices
5	**Turmeric**: By adopting the rhizome treatment with bio inoculants which manage the disease incidence and yield had increased up to 16 percentage than the farmer practices
6	**Coconut**: By adopting the IPM technology which reduces the pest incidence up to 9.43% than the farmer practices
7	**Banana:** The CO2 variety yield has increased and fetches better price than Neypovan
8	**Cassava:** YTP2 variety performed well and better starch content
9	**Cassava:** Foliar application of Cassava special 0.5% @ 2, 3 and 4 month after planting rectifies micronutrient deficiency in sugarcane. 19 % yield increase was noticed as compared to farmers practice, which ultimately helped in improving the farm productivity from 1.91 to 2.19
10	**Rosemary:** Ooty -1 variety is suitable and performed well in Talavadi climatic condition and yield potential(is 197.5Q/hac than compare to local variety (165.5Q/hac) and content of essential oil is 0.9%
11	**Low cost feed for livestock:** Demonstration of use of agro industrial byproduct as raw material in cattle feed formulation as reduced the feed cost (production cost)and increased the income of farmers
12	**Poultry:** Generally, the hatching percentage of desi chicken eggs reduces in summer due to calcium deficiency. The use of shell grit in feed reduced the feed cost and egg related problem in desi-birds and its hatchability
13	**Stone Remover :** Labour reduction in removing the stones and pebbles; Helps to overcome the inter cultural operations and irrigation
14	**Inter cultivator cum Ridger in Banana cultivation:** Reduce the labour dependency in bund formation and weeding operation, prevent from lodging
15	**Turmeric Harvester:** Helps in drastic reduction in labour cost and time consumption.
16	**Mushroom:** The entrepreneurs participated in the trial expressed that the APK-1 variety of pink oyster mushroom gives high returns for its short duration of 30 days cycle as compared with other two varieties of 60 days crop cycle. The entrepreneur can get Rs.27720/- per batch with 250 beds and for 5 batches Rs.138600/- per year as profit
17	**Immune Boosting Herbal Garden**: It helps to protect the family from seasonal disease also easy to grow in the garden / grow bags

Extension activities on the FLD

Sl.No.	Activity	No. of activities organized	Number of participants
1	Field Days	17	267
2	Farmers Training	34	625
3	Media Coverage	10	-
4	Training for Extension Functionaries	4	168

Performance of Frontline demonstrations

Frontline demonstrations on crops

Crop	Thematic Area	Technology demonstrated	Name of the Variety/ Hybrid		No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
			Domo	Check			Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
							High	Low	Average										
Paddy	INM	New variety seed CO -52 Seed treatment with Azospirillum, Soil application of micronutrients – Paddy special	CO-52	ASD-16	10	4.0	53	49.8	51.76	45.09	14.79	45650	106626	60976	2.34	47265	87475	40210	1.85
Finger millet	Varietal demonstration	ATL-1 variety, seed treatment with bio fertilizers	ATL 1	GPU 28	10	4	29.50	27.25	28.28	22.36	17	21470	59378	37908	2.77	22340	44725	22385	2.0
Blackgram	IPM	Demonstration of IPM for Blackgram VBN 11	VBN 11	VBN 4	5	2	8.78	8.35	8.83	7.57	17	24610.00	54138.40	29528.40	2.20	23670	44309	20639	1.87
Groundnut	IPDM	Demonstration on IPDM in Groundnut	Kadiri 1812	CO2	10	4	1777	1539	1626.30	1251.20	30.38	34804.4	73183.50	38379.10	2.10	33631.30	56304	22672.7	1.67
Turmeric	IDM	Demonstration on Rhizome Rot management in Turmeric crop	CO2	Swarna	5	2	325.69	312.58	319.13	276.13	15.57	164737	408591	243854	2.48	154766	307549	152783	1.99
Coconut	IPM	Demonstration for IPM for RSW management	-	-	10	4	124	108	120	95	26	95326	218400	123074	2.29	93070	194483.8	101413.80	2.09
Cassava	INM	Demonstration of micronutrient management in Cassava	Mulluvadi	-	10	4	306	290	298	251	19	68100	149300	81200	2.19	66400	126900	60500	1.91
Cassava	ICM	ICM on Cassava	YTP-2	Mulluvadi	5	2	452	426	411.2	283.8	47.36	124537	411200	286663	3.30	122989	283800	160811	2.31
Banana	ICM	ICM in Banana	Co-21	Neypoovan	3	1	242	230	236	211	11.85	155039	424800	2697612	2.74	154577	358700	204123	2.32
Rosemary	ICM	ICM on Rosemary	Ooty -1	OOoty local	2	1	200	195	197.5	165.5	19.33	253053	395000	141947	1.56	254480	314450	59970.5	1.24
Immune Boosting Herbal Plants at Household level	-	Herbal Plants	-	-	10	-	-	-	0.42	-	-	3500.00	8800.00	5300.00	2.51	-	-	-	-

Frontline demonstrations on Livestock

Animal	Thematic Area	Technology demonstrated	Farming situation	No. of Farmers	No. of Village	Yield (Lit/animal)		% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo	Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle	Nutritional management	Demonstration of low cost feed formulation using agro-industrial byproducts	Extensive	10	2	2240	1820	23	53760	89600	35840	1.67	50960	72800	21840	1.43
Poultry	Production and management	Demonstration of use of shell grit for better egg quality and hatchability	Extensive	20	2	94	81	16	47850	77732	29882	1.62	35780	50092	14312	1.40

Enterprise

Enterprise	Thematic Area	Technology demonstrated	Farming situation	No. of Farmers	No. of Village	Yield (Kg)		% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo	Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Mushroom	Varietal Demonstration	Arka (OM)1	-	10	3	1.20	1	20	19500.00	47250.00	27750.00	2.42	20000.00	35650.00	15650.00	1.78

Frontline demonstrations on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total
Stone remover	-	Stone remover in cultivable land	4	1	Coverage ha/ labour	0.024	0.008	200	83	-	-	-	83	41500	83	-
Inter cultivator cum Ridger	Banana	Inter cultivator cum Ridger in Banana	4	1	Coverage ha/ labour	0.072	0.028	157	12		10	-	22	11000	22	
Turmeric Harvester	Turmeric	Turmeric harvestor	4	1	Coverage ha/ labour	0.012	0.006	100	-	-	-	51	51	-	25375	-

Extension Studies

Experiences of Drone usage in Farming Activities

Introduction:

The technological improvements in agriculture have brought about revolutionary change in agricultural production system. However, it is imperative to enhance input use efficiency for enhancing net profit from farming and mitigating the adverse effect on ecosystem. The interweaving of information and electronic technology for agricultural production system to determine, analyses and manage the critical temporal and spatial factors of farm for maximizing profitability, sustainability and environmental protection is need of hour.

In the present era of agriculture system, amalgamation of sensors, satellites, digital technology, and robotics is indeed need for paving the way for precision, profitable and environmentally safe farming. Harnessing the capability of robotics for coping with business competition, environmental challenges such as reducing the ecological footprint of agriculture, and increasing food production is an opportunity and robotics may be boon for achieving the target. Drones or unmanned airborne vehicles (UAV) play a critical role in the recent farming activities such as application of liquid fertilizers, pesticides in a precise manner with the specific aerial reconnaissance.

KVK Intervention:

ICAR, KVK – MYRADA in association with Rotary club, Gobichettipalayam and Mivi Pro products, Gobichettipalayam demonstrated the usage and application of drones in agriculture. The first demonstration in initiated in 2020 and demonstrating the same in the subsequent years over the area of 2460 acres area in Erode district.

Wild boars and rabbit are the major crop losing factors in the paddy and other crops. The farmer cum entrepreneur Mr. G.V.Sudharsan from Gobichettipalayam of Erode district developed an innovative product called "Herboliv^{+}" to protect the crop from wild animals and vertebrates. Kendra demonstrated this innovative product with the support of drone to know about the efficacy of the product as well as drone.

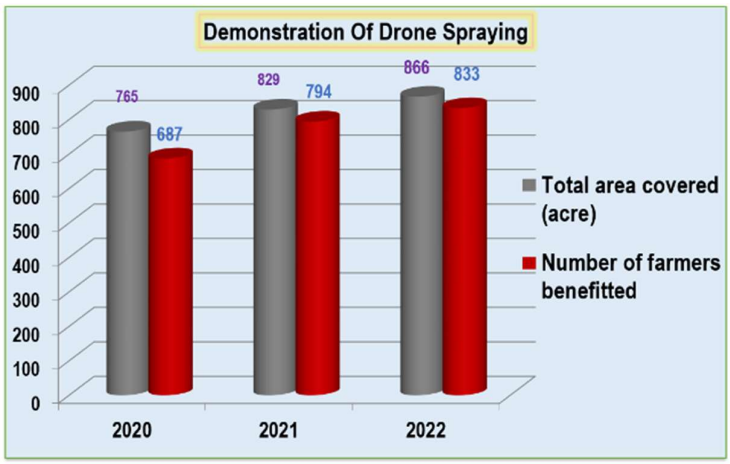
Outcome & Impact:

The detailed study was conducted during this period to assess the suitability and effectiveness of drone application in agriculture with the parameters like input consumption, labour dependency, time to cover an acre area, cost involvement, accuracy of application and health aspects of spray man.

Parameters	Manual spraying	Drone spraying
Input consumption	12 litre / acre	4.2 litre / acre 60 percent input consumption is reduced
Coverage time	1 hour	10 minutes
Cost for application / acre	Rs. 450.00	Rs. 375.00
Labour dependency	Shortage of skilled labour 2 labours required	Drone operator and the farm owner is enough to cover the area. The cost of operator is covered in the application cost itself
Accuracy of application	Cannot be assured	100 % spray assured with the aerial reconnaissance

Parameters	Manual spraying	Drone spraying
Health aspects	• The farmers move on to the field and requires more energy to cover the area. • Skin and gut infections observed over the period of time	No harmful and 100 % free from scorching effects

Totally 2460 acres of area was covered under drone spraying to benefit 2314 farmers in the district. The details are presented in graphical form.



Demonstration on Drone Spraying in Cluster approach

Technology Week Celebrations

Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
Gosthies	6 Nos.	2410	Poshan Maa Celebrations, Women Day, World Soil Day, Swacchhta programme and Farmers Day
Lectures organized	16 Nos.	1647	Paddy, Rosemary, Turmeric, Banana, Bhendi, Groundnut, Cotton, Organic farming, Water management, Wild boar repellent Herboliv, Coconut Rugose Spiraling whitefly Management, Maize, Poultry, Value addition in Millets and Dairy
Exhibition	10 Nos.	2150	Soil and water conservation, Integrated farming system, Value added products – Honey, Milk & Millets, Farm machineries, Drone technology
Film show	5 Nos.	1610	Bee keeping and value addition in honey, IFS, Organic farming, desi bird farming and Immune Boosting Herbal Garden
Farm Visit	5Nos.	625	Integrated farming system, Soil and water conservation, Wild boar – Herboliv spraying techniques by Drone Method, Vertical farming, Nutrition Garden, Composite fish culture, Vermi compost, Organic liquid manure
Distribution of Literature (No.)	5 Nos.	1000	Importance of Soil and water conservation, Usage of bioinoculants, Honey Bee rearing, Importance of Bargur Cow and Buffalo milk and Mineral mixture in dairy cow
Total number of farmers visited the technology week	6 Nos.	2410	Farmers, Youths, Entrepreneurs and Extension Officials

Training/workshops/seminars etc. attended by KVK staff

Name of the staff	Title	Dates	Duration	Organized by
Mr.R.D.Srinivasan & Mr.S.Saravanakumar	National Facilitator Development Programme	07-12.2.2022	6	MANAGE, Hyderabad
Mr.R.D.Srinivasan	Role of Extension in Dissemination of Integrated Pest Management	26.02.2022	1	ICAR National Centre for Integrated Pests Management, New Delhi
Ms.M.Siva	Workshop on recent Skill building initiatives by NSDC and TNSDC	04.03.2022	1	DSTO, Erode
Dr.Thirumalaisamy	Future heat stress in domesticated livestock; Nature's osmolyte power to combat heat stress; Underlying mechanism and mitigation of harmful effects	10.03.2022	1	Dairy Global, All about feed, Pig Progress, Poultry World and Future Farming
Ms.M.Siva	National Facilitator Development Programme (NFDP)	07-12.03.2022	6	MANAGE, Hyderabad
Ms.A.Premalatha	Production of Arka fermented coco peat and soilless cultivation of vegetables	19.03.2022	1	IIHR, Bangalore
Dr.G.Thirumalaisamy	Climate Change and Livestock Production: Current Scenario and Way Forward	11.04.2022 (Virtual Mode)	1	ICAR-NIANP, Bengaluru
Mr.R.D.Srinivasan	Role of Integrated Pest Management in Doubling Farmers Income	21.04.2022 (Virtual Mode)	1	ICAR NRCIPM, New Delhi
Ms.A.Premalatha	Good Agriculture Practices in Organic Agriculture	10-12.05.2022	3	TNSAMETI & MANAGE, Hyderabad
Ms.M.Siva	Agri-Preneurship through banana based technologies : An avenue for Atmairbhar Bharat	15-17.06.2022	3	MANAGE, Hyderabad
Ms.A.Premalatha	Building resilience of farmers towards climate change risk - Role of FPOs	23-24.06.2022	2	MANAGE, Hyderabad
Dr.P.Alagesan	International Conference On Harnessing Indian Agriculture For Indigenous And Global Property	22-23.07.2022	2	ICAR and NASC, New Delhi
R.D.Srinivasan	National Workshop on Effective implementation and Monitoring of DAESI programme	26-27.7.2022	2	MANAGE Hyderabad
Mr.R.D.Srinivasan	Consultation meet on emerging challenges in Plant Protection of major Kharif crops. (Virtual mode)	13.08.2022	1	ICAR ATARI Ludhiana and Dhanuka Group, Chandigarh
A.Premalatha	Weather based agricultural production and technology	02-03.08.2022	2	ICAR KVK Salem, Tamilnadu

Name of the staff	Title	Dates	Duration	Organized by
Mr.R.D.Srinivasan	Role of Natural Enemies (Predators and Parasitoid) in Managing Whiteflies	21.09.2022	1	ICAR National Research Centre for Integrated Pests Management (NCIPM), New Delhi
Mrs.A.Premalatha	Seed technology - Imperatives of seed production, quality assurance and commercialization	28.09.2022	1	MANAGE, Hyderabad
Ms.A.Premalatha	Introduction to natural farming principles and practices	17-19.10.2022	3	MANAGE, Hyderabad
Mr.M.Thirumoorthi	Enhancement of wheat productivity through Bio fortified wheat (dicoccum) production technologies	21.11.2022	1	IARI Regional station, Wellington
Dr.P.Alagesan	State Level Refresher training on Recent technologies in agriculture with special focus on Natural farming	08-10.11.2022	3	TNAU Coimbatore
Ms.A.Premalatha	State Level Refresher training on Recent technologies in agriculture with special focus on Natural farming	21-23.11.2022	3	TNAU Coimbatore
Mrs.A.Premalatha	National seminar on Soils: Where food begins	02-03.12.2022	1	Kumaraguru Institute of Agriculture, Appakoodal
Mr.P.Pachiappan	National workshop on Natural farming	03.12.2022	1	ICAR New Delhi
Mr.P.Pachiappan	Training on Natural farming	05-06.12.2022	2	ICAR New Delhi

Details of sponsored projects/programmes implemented by KVK 2022

S #	Title of the programme / project	Sponsoring agency	Objectives	Duration	Amount (Rs)
1	LEDP on "Value Addition in Indigenous Bargur Cow Milk and Cow by-products"	NABARD Regional Office, Chennai	To produce various value-added milk products and cow based by-products based on the market demand	3 Months (09.11.2021 – 08.02.2022)	1,10,259
2	Formation and Promotion of 1 Farmer Producers Organization (FPO) for Animal Husbandry activities and PODF-ID	NABARD Regional Office, Chennai	To increase the economic importance of traditional native breeds through value chain initiatives and appropriate market linkages through FPO	3 Years (31.03.2021 – 30.03.2024)	2,17,250
3	Integrated Tribal Development Programme	NABARD Regional Office, Chennai	To increase the Tribal families' annual income through ITDP project implementation & prevented the migration to moving for employment	6 Years (24.03.2022 - 23.03.2028	83,87,480
4	IOT based Soil And Weather station for Agricultural Prospective Use	NABARD Regional Office, Chennai	To promote IOT based agricultural operations for précised application of inputs; To optimize the input application to the needy crop and area; To reduce the cost of cultivation and increasing the yield of crop	2 Years (18.05.2022 – 17.05.2024)	14,00,000
5	NABARD - GVN – Tribal community driven sustainable Eco-Tourism Project in Talavadi hills of Erode District, Tamilnadu	NABARD Regional Office, Chennai	To create awareness on conservation of bio-diversity through eco-tourism. To establish eco-friendly park for guiding visitor on recent development in farm and forestry.	2 Years (31.01.2022 – 30.01.2024)	14,99,500
6	Exposure programme on "Training on Intricacies of Natural Farming"	NABARD Regional Office, Chennai	To impart knowledge and skill to the farmers on recent development in agriculture	2 Days (15.10.2022 & 16.10.2022)	66,000
7	Krishi Mitra: Promotion and awareness of organic farming in cluster villages	Fullerton India Credit Company, Mumbai	To advance the livelihoods of the communities by enabling them to adopt Organic Farming	11 Months (1.05.2022 – 31.03.2023)	5,70,000
8	Construction of training infrastructure for farmers	SBI Mutual Fund Trustee Company P Ltd. Mumbai	To improve the infrastructure to conduct farmers trainings in Erode district	8 Months (1.6.2022 – 31.03.2023	85,00,000
Total					**2,07,50,489**

Project Number: 1

Funding Agency	NABARD
State/Central/Over Seas	Central
Title	LEDP on "Value Addition in Indigenous Bargur Cow Milk and Cow by-products"
Objectives	To produce various value-added milk products and cow based by-products based on the market demand
Study area	Bargur
Methodology	Skill Training and Method Demonstration
Team Members	SMS (Animal Science& Agricultural Extension)
Budget	Rs.1,10,259

Project Number: 2

Funding Agency	NABARD
State/Central/Over Seas	Central
Title	Formation and Promotion of Farmer Producers Organization (FPO) for Animal Husbandry activities and PODF-ID
Objectives	To increase the economic importance of traditional native breeds through value chain initiatives and appropriate market linkages through FPO
Study area	Gobi, Kallipatti and Anthiyur
Methodology	FPO Promotion and Capacity Building
Team Members	SMS (Animal Science)
Budget	Rs.2,17,250

Project Number: 3

Funding Agency	NABARD
State/Central/Over Seas	Central
Title	Integrated Tribal Development Programme
Objectives	To increase the Tribal families' annual income through ITDP project implementation & prevented the migration to moving for employment
Study area	Bargur Hilly Regions
Methodology	Awareness, Implementation of WADI
Team Members	SMS (All Discipline)
Budget	Rs. 83,87,480

Project Number: 4

Funding Agency	NABARD
State/Central/Over Seas	Central
Title	IOT based Soil And Weather station for Agricultural Prospective Use
Objectives	To promote IOT based agricultural operations for précised application of inputs; To optimize the input application to the needy crop and area; To reduce the cost of cultivation and increasing the yield of crop
Study area	Kallipatti and Nambiyur
Methodology	Awareness, Implementation of Weather Station
Team Members	SMS (Soil Science)
Budget	Rs. 14,00,000

Project Number: 5

Funding Agency	NABARD
State/Central/Over Seas	Central
Title	Tribal community driven sustainable Eco-Tourism Project in Talavadi hills of Erode District, Tamilnadu
Objectives	To create awareness on conservation of bio-diversity through eco-tourism. To establish eco-friendly park for guiding visitor on recent development in farm and forestry.
Study area	Arepalayam
Methodology	Skill Building, Construction of Tribal Hut
Team Members	SMS (Agrl. Extension)
Budget	Rs. 14,99,500

Project Number: 6

Funding Agency	NABARD
State/Central/Over Seas	Central
Title	Exposure programme on "Training on Intricacies of Natural Farming
Objectives	To impart knowledge and skill to the farmers on recent development in agriculture
Study area	Gobi
Methodology	Exposure & Capacity Building
Team Members	SMS (Agrl.Extension)
Budget	Rs. 66,000

Project Number: 7

Funding Agency	Fullerton India
State/Central/Overseas	State
Title	Krishi Mitra: Promotion and awareness of organic farming in cluster villages
Objectives	To advance the livelihoods of the communities by enabling them to adopt Organic Farming
Study area	Erode District
Methodology	Awareness, Capacity building, Advisories, Demonstrations
Team Members	SMS (Agrl. Extension)
Budget	Rs. 5,70,000

Project Number: 8

Funding Agency	State Bank of India, Mumbai
State/Central/Overseas	State
Title	Construction of training infrastructure for farmers
Objectives	To improve the infrastructure to conduct farmers trainings in Erode district
Study area	KVK Campus Gobichettipalayam
Methodology	Construction of training hall
Team Members	SMS (Agrl. Extension)
Budget	Rs. 85,00,000

Success stories

1. Inspiring farming women in IFS

Domain of the study/ Rationale:

The green revolution resulted in manifold increase in production due to the introduction of high yielding varieties, use of chemical fertilizers and excessive irrigation were practiced to maximize the grain yield. Modern industrial agriculture contributes a great deal to climate change. This situation led to the disturbances in soil reaction, development of nutrient imbalances in plants, increased susceptibility to pests and diseases and decrease in soil life. Many of the farmers are not aware of best using the agricultural and farm wastes for increasing productivity without affecting the soil fertility and bio-diversity of the native soil. Addressing this issue, KVK focusing on the adaptive strategies for effective utilization of farm and home resources called as Integrated Farm Development. Integrated Farm Development (IFD) is an innovative concept in farming wherein integration of various resources (farm waste) is utilized in order to reap maximum benefits.

Name of farmer: ***Gandhimathi***
Address: *182, Pannanadithottam, Moolapalayam, Arrakankottai, Erode District,*
Mobile Number*: 9942282806*
Age: *32*
Education: *XII Std*
Land holding (in acre): 2.5

Gandhimathi W/O Prakashpathi residing at Elur village of TN Palayam block is an enthusiastic women farmer having connection with KVK, Erode since 2017. She is having 2.5 acres of land and was cultivating banana. She was having two dairy cows and 15 desibirds.

Activities implemented by the KVK:

During 2017-18, she was one of the beneficiaries of SCSP project and advised her to go for integrating farming system. The following components viz., goat, poultry, bee box and azolla were provided by KVK to support IFS model in her farm. She was also beneficiary of two OFT on Demonstration on foliar application of banana special; Assessment of specific mineral mixture for small ruminants (Goats). These technologies gave better performance in-term of increased bunch weight, uniform maturity and appearance in banana and additional weight gain in goat. The introduction of bee box in her farm as drastically changed her farm income.

Further, advisory services were also provided on effective utilization and recycling of farm waste for better production through Eco-Farming. She also actively participated in skill training programs like Organic grower, Vermicompost production, Value addition in millets and Feed & fodder production for livestock.

Banana Plantation

Dairy

Goat Rearing

Bee Box

Azolla Unit

Coconut Tree Climbing Device

Output of the intervention

Based on the KVK intervention, she gain knowledge in the following aspects

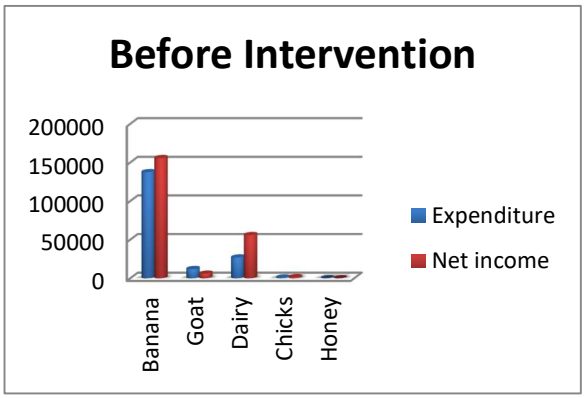
- Nutrient management in Banana
- IPDM in Banana
- Honey bee rearing
- Azolla ponds and utilization as commercial feed replacement
- Regular deworming, vaccination in dairy animals, goats and poultry
- Effective utilization of farm waste

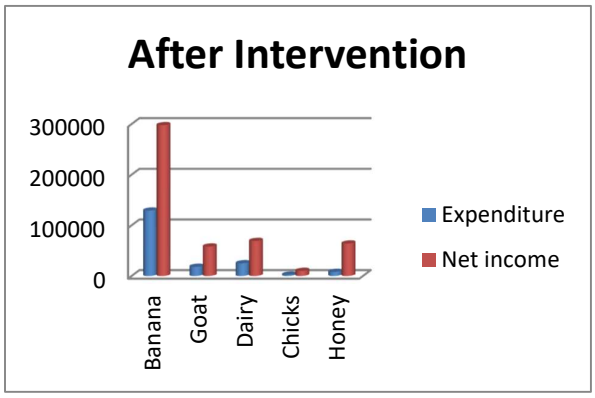
Before Intervention

Sl.No	Component	Nos./Area	Yield (Nos./Litre/Kg)	Expenditure	Net income
1	Banana	2.5 ac.	17300	137500	155750
2	Goat	2	2 Nos.	12000	6000
3	Dairy	2	1460	27000	56000
4	Chicks	15	25	1000	1500
			Total	**177500**	**219250**

After Intervention

Sl.No	Component	Nos./Area	Yield (Nos./Litre/Kg)	Expenditure	Net income
1	Banana	2.5 ac.	20500	129000	297575
2	Goat	5	8 Nos.	18000	58000
3	Dairy	2	2880	25000	69000
4	Chicks	50	400 Nos.	2500	10000
5	Honey	10	120 Kg	8000	64000
			Total	**174500**	**434575**





Outcome and Impact

- Mrs. Gandhimathi is success in adopting IFS components by using appropriate technologies is becoming popular in her village. On seeing the successful implementation of IFS farming, the neighbouring farmers adapted similar technology in their respective farm in and around her village. At present, 14 farmers (covering 55 acres) have adapted successful IFS farm over a period of 4 years.

- Mrs. Gandhimathi is also producing vermi compost and on-site inputs like panchakavya, jeevamirtha for her farm purpose; this has drastically reduced (55%) the usage of chemical fertilizers in her farm which indirectly reduced the production cost. Soil test based fertilizer application is also the reason for reduced chemical fertilizer. Due to the use of ideal inputs and timely operation, she could harvest good quality bunch with average weight of 10 Kg, fetching premium price of Rs 200-300/bunch for banana and Rs 600/Kg for honey.

Mrs Gandhimathi's income before KVK intervention was Rs 2, 19,250 and after KVK intervention, her income doubled to Rs 4, 98,575. Her dedication and methodology has attracted the nearby women farmers in following scientific IFS system. She also has now plan to establish fish pond in her farm and have applied for subsidy from State fisheries department.

2. Rosemary cultivation and value addition for small and marginal farmers in Erode (Ooty-1 Variety) – Boon for Talavadi farmers

Introduction:

Erode district constitute four major types of farming situation viz., dryland farming, wetland farming, garden land farming and hilly region farming. The climate condition prevailing in the district is suitable for cultivation of cash crops like sugarcane, cotton, cabbage, garlic, potato, turmeric, ragi, beans, etc. For past two decades, MYRADA KVK has been working in Erode District. The special focus was given to hilly regions of the district, at an elevation of 1000 m MSL. The area is totally covered by the reserve forest, wherein the topography of land is undulated in nature. The type of soil is Red soil. Water is taped from bore - well for irrigation. The crops of hilly regions are, Turmeric, sugarcane Maize, Banana, Tapioca are under Irrigation condition and Ragi, Lab-Lab are under rain fed condition.

Rationale

Since, the land covered by reserve forest, the wild animal menace is a major nuisance for farming activities. In many cases, they could not able to get the expected yield from the crop, even after had a constant vigil during night times. The factor leads to migration of people out of the area in search of employment.

About Rosemary

(Rosemarinus officinalis) – Lamiaceae. It is perennial evergreen shrub, highly aromatic plant growing up to one meter high. The plant is characterized with woody trunk; leaves are linear, revolute, green colour on the dorsal side and woolly grayish on the ventral side. Oil glands are found in ventral side of the leaves. The flowers are pale blue in clusters. The calyx contains high oil content. Principle constituents: Pinenes, camphene, limonene, cineol, borneal with camphor, linalool, terpineal, octanone, borny acetate. Use of Rosemary: Pharmaceutical products – relax muscles, stimulant, mild analgesic and prevention of cancer. Cosmetic – skin care, hair care, and perfumery. Nourishment – common ingredient in most of the European cuisine.

Based on this background, KVK have been introduced an aromatic plant Rosemary livelihood support of small and marginal farmer. Ideal climate is prevailing in the hamlets of villages are located towards western hills of the District of Sathyamangalam with elevation of around 800 to 1000 MSL. Based on this, farmers are finding alternate variety for ensuring their farm income. Keeping this in view, KVK taken up trials on identification of Ooty -1 Rosemary variety overcome problem in hilly regions of Talavadi of Erode district.

KVK Interventions

- KVK conducted on farm trial during 2021-22 to identify the suitable variety for the prevailing agro climatic condition in Talavadi region of Erode district.
- Ooty-1 variety released from Horticultural college and Research institute, TNAU, Coimbatore found more suitable to this region, which matures in 6 months in initial period then followed by mature every 3 months, and the realized an average Yield: 10-12t/ha. High yield potential of green leaves in one year, leaves possess high rosemary oil content (0.9 %), Green and dried leaves possess excellent aroma and cooking quality , Resistant to leaf blight disease caused by Rhizoctonia solani, Resistant to pests like white flies and aphids, when compared to the ruling varieties (Ooty local).
- The selected progressive farmers trained on scientific cultivation methods (Land preparation, mulching techniques, drip irrigation methods, post-harvest management) of Rosemary crop and supported with seed materials like rooted cuttings. From sowing to harvest, KVK scientists made periodical visit to provide technical advisory services for getting maximum yield.
- Organic inputs like Panchagaviya, Pseudomonas fluorescence and Fish amino acid were provided to the trial farmers to increase the herbages yield as well as disease management
- Professor and Head Department of Medicinal and Aromatic plant HCRI, Coimbatore visited the field to know about its surveillance during the cropping period, and asses the yield potentiality Based on its performance, KVK demonstrated the same variety in the subsequent year in Talavadi area with the support of line departments under FLD programme for area expansion and popularization among farming communities

Outcome and Impact

- KVK identified Ooty -1 suitable for the Talavadi climatic conditions
- 19.41% yield increase was recorded than the existing varieties
- An additional income of Rs.80000 to 90000 / Ha was realized in Ooty -1 variety

Mr. Irruthayasamy from kalmandipuram village of Talavadi block has produced 8 ton herbages /acre/year by adopting this Ooty -1 variety and earned Rs.246500/year). The essential oil content was recorded 0.9%, which was highly preferred in the market for cosmetic industries.

- Currently 426 ha areas covered by this variety in Erode district.
- Farmers are linked with marketing agencies (Hope inn Nilgiris, Ooty) for technical and marketing tie up
- 25 acre of rosemary crop has been expanded with support of NABARD
- Kendra established solar tunnel drier with support of Hope in Nilgiries for post-harvest technology
- Up-scaling of Rosemary cultivation activities neighbouring state like Karnataka in 100 acres :

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

Challenges	Innovative methodology adopted	Output	Outcome
Poor quality and unhealthy seedlings	Organic liquid seed coating Formulation	Developed innovative seed coating formulation for all crops. Test verified at TNAU, Coimbatore	Uniform vigour and growth of seedlings. 3000 healthy seedlings produced and supplied to the farmers.
Dissemination of technologies in extension system through input dealers	Development of technocrats	Developed 240 Technocrats in Gobi, TN Palayam, Sathy, Talavadi, Anthiyur, Bhavani and Ammapet blocks of Erode district.	Provide first-hand information to the farmers, season based technologies transferred to the farming community in time.
Wilt, root rot and Blight diseases	Bio fungicide- Salute	Developed innovative bio fungicide formulation for all crops. Test verified at National Research Center for Pomegranate	Bio fungicide- Salute controls wilt, root rot and blight diseases of all crops. KVK assessed and demonstrated this technology for Banana leaf spot and wilt diseases. This technology popularized over 1000 acres of area in Erode District
Excess/ less usage of water, fertilizers and other inputs Unaware about weather based agro- advisories management practices	IoT based soil and weather station for prospective agricultural use	Established IoT based automatic soil and weather station at 2 farmers field of Erode district.	Provides real time weather data based on the micro climatic condition availed in 2-3 km radius in each villages. Farmers can irrigate his farm from anywhere anytime through his mobile Whatsapp group created in each villages by involving 713 farmers to provide medium range weather forecast data and weather based agro advisories to carry out their agricultural activities

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Coconut	Pine apple extract with sugar solutions kept in coconut farm @ 12/ha	To manage the red palm weevil
2	Sugarcane	Spraying of egg solution over sugarcane seedlings	Prevent the seedlings from rabbit damage
3	Brinjal	Neem and camphor extract (Cow urine, turmeric powder, neem oil, champhor, calcium powder)	To manage the fruit and shoot borer damage
4	Cotton	Vegal karaisal is an extract of plant leaves (Lantana camara, aloe vera, mint)	To manage the sucking pest in cotton
5	Dairy Animal	Extraction of jack leaves, vilvam leaves, neem leave and park	Treatment for Foot and mouth disease
6	Poultry	Cut piece of small onion mixed with keelanelli leaves given oral	Treatment for ranikhet disease
7	All Crops	5 kg of curry leaf mixed with 25 liters of water and kept it for 15 days fermentation	To manage iron deficiency

Impact of KVK activities

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Vegetable special	457	82	Rs.40000/ha	Rs.47000/ha
Banana special	3721	86	Rs.2.25 lakhs/ha	Rs.3.2 lakhs/ha
Bee keeping	1324	70	Nil	Rs.15000 /month
Decentralized bio input product	57	87	Nil	Rs.15400 to Rs.17250/month
Mushroom cultivation	122	78	Rs.2000/month	Rs.10,000 to Rs.12,000/month
Processing and value addition of farm products (Millet, Fruits & Vegetables)	107	72	Rs.10000 – 15000/month	Rs.40000 – 48000/month
Desi bird rearing	92	95	Rs.2000/month	Rs.15,000 – Rs.20,000/month
Mixed fodder	180	87	Nil	Rs.1,30,000/year
Turmeric assaying unit (Curcumin analysis)	650	47	Rs.120000 / year / acre	Rs.150000 / year / acre
Vermi compost	25	16	Nil	Rs.6000 to Rs.8000/month
Value addition in milk	165	85	Rs.2000 – Rs.3500/month	Rs.8000 – Rs.10000/ month

Impact of five select technologies assessed/demonstrated/popularized by the KVK in the district

S. No.	Name of specific technology / skill transferred	Source of technology	No. of Farmers	Extent (ha)	Increase in net return Rs / ha	Economic Impact / benefit (Rs) (5x6)	KVK Intervention OFTs/FLDs/ Trainings	Convergence / Partners involved in up scaling of technology	Remarks
1	High Yielding Variety in Blackgram (VBN-8)	TNAU	360	165	16,250	26,81,850	CFLD – 7 Trainings – 16 Field Day – 7 Literature Published – 10	Department of Agriculture and FPOs	• Increasing the yield by 19.25 percent • KVK promoted Farmers Group involved in seed production and supplied 110 qtl Seeds to State Department of agriculture • KVK established 4 decentralized processing units consist of spiral separator, Pulses dehusker, pulveriser
2	Management of Fall Army Worm in Maize Crop	TNAU, Coimbatore	3724	1490	12,450	1,85,50,500	OFTs-5 FLD s- 10 Trainings – 29 Field days- 10 Literature Published – 4	Department of Agriculture, TNAU and FPOs	• 24% yield increased was noticed • Pests infestation percentage reduced from 20.25 to 7.63 • 240 input dealers were trained in the management of Fall Army worm and providing technical assistance to the farmers

S. No.	Name of specific technology / skill transferred	Source of technology	No. of Farmers	Extent (ha)	Increase in net return Rs / ha	Economic Impact / benefit (Rs) (5x6)	KVK Intervention OFTs/FLDs/ Trainings	Convergence / Partners involved in up scaling of technology	Remarks
3	French Beans (Araka Arjun)	IIHR, Bangalore	2700	1930	32,000	6,31,11,000	OFT – 3 FLD – 7 Training – 36 Field Day – 7 Impact Study – 1 Case Study - 4	HRS, Ooty, Department of Horticulture and FPO	• 18 % yield increased was noticed • 32% area increased in hilly regions of Erode District
4	Turmeric (Pragathi)	IISR, Calicut	698	1310	31,000	4,06,10,000	OFT – 3 FLD – 6 Training – 21 Seminar - 3 Field Day – 6 Success Stories - 3	Department of Horticulture and FPO	• 17.30 % yield increased was noticed • 20% area increased in Erode District • Established 2 curcumin assaying laboratory • Formed Farmers Producer Organization
5	Cassava (YTP-2)	TNAU, Coimbatore	250	400	52,000	2,08,00,000	OFT – 2 FLD – 5 Training – 14 Field Day – 5 Success Stories - 2	Department of Horticulture	• 19.75 % yield increased was noticed in YTP-2 variety • 12% area increased in Erode District

Cases of large-scale adoption/impact of specific technologies

Sl.No.	Activities	Achievements
1	Integrated Farming System	4318 families
2	French Beans (Arka sharath, Arka komal)	2110 hectare
3	Ragi (ML-365)	1950 hectare
4	High yielding variety – Greengram & Blackgram	425 hectare
5	Turmeric (Pragathi variety)	432 hectare
6	Banana special	4350 hectare
7	Vegetable special	3150 hectare
8	Fodder (CO4 & CO5)	3475 farmers
9	Agri-Value chain (Value added Products)	146 branded products
10	Organic liquid manure	2240 hectare
11	Turmeric curcumin analysis	750 farmers
12	Drone Spray	1225 acres

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

High yielding Sugarcane Variety CO - 0212

Introduction

Sugarcane being mainly grown as an important commercial crop and it is the main source of sucrose in India. In Erode district, sugarcane occupies 25,000 ha area in every year. Due to the continuous cultivation of old varieties in the same field over 3 years resulted in yield reduction in sugarcane crops. Seasonal aberrations and ground water availability leads to reduction in area under sugarcane cultivation. The farmers not aware of recent varieties released by research stations and state agricultural universities, which are resistant or tolerant to various pests and diseases apart from the higher productivity. Considering the constraints faced by the farmers, ICAR KVK MYRADA conducted on farm trial on the performance assessment of sugarcane variety CO – 0212 in Erode district. The yield performance and higher economic returns of the variety leads for further dissemination in the district.

KVK Intervention:

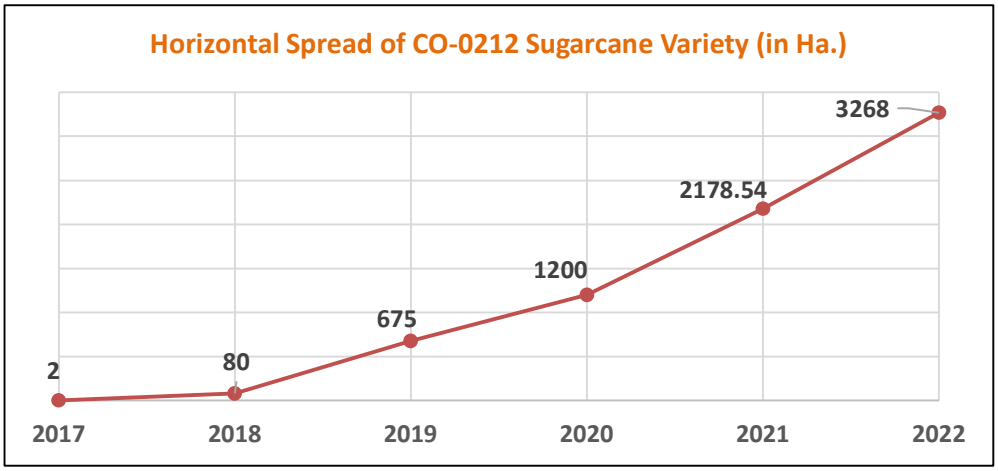
- KVK conducted On-farm trials with High Yielding variety in Sugarcane (CO-0212) in Elumathur and Vellode region of Erode district
- Training programmes organized on various production technologies in association with ICAR Sugarcane Breeding Institute, Coimbatore and Sakthi Sugars Limited
- Method demonstrations conducted on sett treatment techniques, planting methods and IPM practices
- Organized Exposure programme to ICAR SBI, Coimbatore in order to exploring the production potential of newly released sugarcane varieties
- Established nursery units for disease free quality seedling production in Vellode

Outcome and Impact:

- The new variety CO - 0212 recorded the yield of 127.50 t/ha over the existing variety recorded the yield of 108.75 t/ha
- 17.24 percent yield increase observed over the existing variety
- The nursery units supplies 2 lakhs quality sugarcane seedlings per month
- Additional net income of Rs.45,563.00 /ha realized only by replacing the variety
- 53.09% area replaced by new sugarcane variety (CO-0212)
- 6 farmers involved in production of seedling through Protray technology with the guidance of Sakthi Sugars limited and ICAR-KVK, MYRADA.

Horizontal Spread of the Variety

The demonstrations conducted in the farmers' field were well appreciated by the neighboring farmers and sugar mill which could increase the area under Co 0212 in the recent time. The horizontal spreads of the variety in the district are presented in the following graph.



From the yield performance and economic impact of sugarcane variety Co 0212, the sugarcane farmers are convinced for growing the variety in large-scale areas that will easily improve the sugarcane productivity in Erode district.

Linkages

Functional linkage with different organizations

Name of organization	Nature of linkage
National Institutes :	
NABARD, Chennai	● Promotion of FPOs, Skill Training, Demonstration
MANAGE, Hyderabad	● Capacity building programme to Input Dealers
NDDB, Erode	● Skill training, Demonstration
NIPHM, Hyderabad	● Training and demonstration
NDFB, Hyderabad	● Training and demonstration
Universities, Research and Educational Institutions:	
TNAU, Coimbatore	● Technical support and Students Placement
TANUVAS, Chennai	● Capacity building and Technical support
ICAR – IISR, Calicut	● Demonstration and exposure programme
ICAR – IIHR, Bangalore	● Technological products, seed material and farm machineries
ICAR – SBI, Coimbatore	● Demonstration & Exposure programme
ICAR – CICR, Coimbatore	● Demonstration & Exposure programme
ICAR – CIAE, Coimbatore	● Demonstration & Exposure programme
ICAR – IISWC, Ooty	● Exposure programme, Training programme
ICAR - CPCRI, Kasaragod	● Capacity building and Technical support
ICAR – CIPM, Trichy	● Technological products
ICAR – CPRS, Ooty	● Exposure programme
NBAIR, Bangalore	● Demonstration and Technological products
State Department:	
Department of Agriculture, Erode & Other Districts	● ATMA programme and Capacity building
Department of Horticulture, Erode	● Capacity building
Department of Agri business & Marketing, Erode	● Skill training programme
Department of Animal Husbandry, Erode	● Camps & Campaign
SAMETI, Tamil Nadu	● DAESI Programme
TNRTP, Chennai	● Capacity building programme
Colleges and Schools	
Kumaraguru Agriculture College, Appakkudal	● Students Placement and RAWE Programme
JKKM Agriculture College, TN Palayam	● Students Placement and RAWE Programme
PKR Arts College for Women	● Training, Demonstration & Awareness Programme
Gobi Arts & Science College	● Capacity building programme and exposure
Bannariamman Rural Foundation	● Capacity building programme and exposure
School Students – within the district	● Exposure, Training and Demonstrations
Print & Electronic Medias:	
All India Radio, Doordarshan and Channels, News Papers, Monthly Magazines, Journals, etc.	Announcements, Articles, Screening of KVK's Technical Programmes, documentation and video coverage

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.)
DAESI- Training programme for Erode District Agriculture input dealers	1 Year (01.02.2022 – 31.03.2023)	State Agriculture Management and Extension Training Institute (SAMETI), Kudumiyamalai. Pudukottai, Tamilnadu	7,40,000.00
ATMA Scheme – Skill Training programme for Rural Youth (STRY)	6 Days	State Agriculture Department, Erode District	42,000.00
Total			**7,82,000.00**

AWARDS and RECOGNITIONS

KVK, KVK Staff, KVK Contact Farmers etc. at district, state, national and international level supported by copies of certificates and photographs

Sl.No.	Name of the Award	Category	Name of the Awardee
KVK			
1	Best Performance Award for implementing NABARD FSPF – Aromatic Crop cultivation	State Level	KVK, Erode
2	Best Exhibition Stall Award – State Level Farmers Day organized by TNAU	State Level	KVK, Erode
KVK Staff			
1	Tech4Seva – Unnat Bharat Abiyam organized by TBI, TNAU, Coimbatore	State Level	Mrs.M.Siva, SMS (Home Science)
KVK Farmer & Entrepreneurs			
1	Tech4Seva – Unnat Bharat Abiyam organized by TBI, TNAU, Coimbatore	State Level	Mrs.Mangalagowri Entrepreneur
2	Tech4Seva – Unnat Bharat Abiyam organized by TBI, TNAU, Coimbatore	State Level	Mr.Shanmugasundaram Entrepreneur
3	Best Exhibited Award	District Level	Mr.Ammasaiappan Farmer
FPO (Farmers Producer Organisation)			
1	Best Performing FPO – Kazhani	State Level	Mrs.Kavitha, CEO, Kazhani FPO
2	National Level Outstanding FPO – Kazhani	National Level	Mrs.Kavitha, CEO, Kazhani FPO
3	Green Award – 2022 –TNRTP under State Department of Rural Development	State Level	Mr.M.Basavaraju CEO, Malai Millet FPO

National Level Outstanding FPO Award given by the Honorable Union Minister of Agriculture, GOI

Best Performing of Rosemary Programme Award given by Honorable Finance Minister, Govt. of Tamilnadu

Tech4Seva Award given by Director, TBI, TNAU, Coimbatore

Best Performing FPO Award given by Honorable Finance Minister, Govt. of Tamilnadu

Important Visitors to KVKs during 2022

Thiru H Krishnanunni I.A.S, **District Collector,** **Erode District**	
Dr.Meles Mekonnen Yimer, **Honorable State Minister of Agriculture,** **Ethiopia**	
Dr.Chandra sekara, **Director General, MANAGE,** **Hyderabad**	
Thiru.Anbarasu, IAS., **Advisor to Administrator** **Lakshadweep**	

Mr.T.Venkata Krishna, **Chief General Manager, NABARD,** **Chennai**	
Mt.Himmat Patel, **World Bank Consultant,** **Mumbai**	

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