

ICAR-KRISHI VIGYAN KENDRA, MANDYA

ANNUAL REPORT- 2020

(FOR THE PERIOD FROM 01 January 2020 TO 31 December 2020)

**University of Agricultural Sciences, Bangalore
ICAR-Krishi Vigyan Kendra
V.C.Farm, Mandya – 571405
email: kvkmandya@gmail.com, kvk.Mandya@icar.gov.in
website: www.icarkvkmandya.com**

PART I - GENERAL INFORMATION ABOUT THE KVK

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

KVK Address	Telephone		E mail	Web Address
	Office	Fax		
ICAR - Krishi Vigyan Kendra, V.C.Farm Campus, Melukote Road Mandya – 571 405	08232-277456	-	kvk.Mandya@icar.gov.in kvkmandya@gmail.com	www.icarkvkmandya.com

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

Address	Telephone		E mail	Web Address
	Office	Fax		
University of Agricultural Sciences GKVK, Bangalore – 560 065	080 – 22330153	080-23516836	vcuasb1964@gmail.com	www.uasbangalore.edu.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. N.T. Naresh	-	9449864250	nareshlt@gmail.com

1.4. Year of sanction: 2004

1.5. Staff position as on 31 December 2020

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/ F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent / Temporary	Category (SC/ST/ OBC/ Others)
1	Head/Senior Scientist	Dr. N.T. Naresh	Senior Scientist and Head	M	Agril.Extension	Ph.D	79800-211150	95300	28.06.2019	Permanent	OBC
2	Scientist/ SMS	Dr. Kamalabai Koodagi	Scientist	F	Home Science	Ph.D	79800-211150	135300	28.02.2007	Permanent	Others
3	Scientist/ SMS	Dr. Atheefa Munawery	Scientist	F	Soil Science	Ph.D	57700 –182400	61200	30.01.2018	Permanent	Others
4	Scientist/ SMS	Dr.Roopashree, D.H	Scientist	F	Agronomy	Ph.D	57700 – 182400	61200	20.02.2018	Permanent	Others
5	Scientist/ SMS	Dr.Pavithra, S.	Scientist	F	Plant Pathology	Ph.D	57700 –182400	59400	24.07.2018	Permanent	SC
6	Scientist/ SMS	Dr. Jaishankar HP	Scientist	M	Horticulture	Ph.D	-	36000	-	Temporary	Others
7	Scientist/ SMS	Dr. Prakash, B.K.	Scientist	M	Sericulture	Ph.D	-	36000	-	Temporary	SC
8	Programme Assistant (Lab Tech.)	Mr. Mahesha H.M.	Training Assistant	M	Sericulture	M.Sc.	44900-142400	52000	04.11.10	Permanent	SC
9	Programme Assistant (Computer)	Mrs. Saritha, N	Prog. Asst. (Computer)	F	-	M.A., Diploma in Computer	44900-142400	47600	29.11.2020	Permanent	OBC

10	Programme Assistant/ Farm Manager	Mrs. Apoorva K.B.	Farm Manager	F	Soil Science	M.Sc.	44900-142400	52000	29.10.10	Permanent	SC
11	Assistant	Mr. Yogesh,	Assistant	M	-	-	-	21600	-	Temporary	OBC
12	Jr. Stenographer	Mrs. Sowjanya Y.P	Typist cum Computer Operator	F	-	-	-	19642		Temporary	OBC
13	Driver - 1	Mr. Ananda	Tractor Driver	M	-	-	30350-58250	36950	16.10.2008	Permanent	OBC
14	Driver - 2	Mr. V. Girisha	Driver (LV)	M	-	-	21400-42000	24600	14.08.2012	Permanent	OBC
15	SS-1	Mr. Mahadevaiah, N.	Assistant cook cum care taker	M	-	-	19950-37900	24050	24.10.2017	Permanent	SC
16	SS-2	Mr. Sannaningaiah	Messenger	M	-	-	-	12960	-	Temporary	SC

1.6. Total land with KVK (in ha): 20.21 ha

S. No.	Item	Area (ha)
1	Under Buildings	0.20
2.	Under Demonstration Units	1.00
3.	Under Crops	6.48
4.	Orchard/Agro-forestry	6.50
5.	Others	6.03

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	June 2012	541.55	85,00,000	-	-	Good Condition
2.	Farmers Hostel	UAS, Bangalore	-	469.69		-	-	Good Condition
3.	Staff Quarters	-	-	-	-	-	-	-
4.	Demonstration Units							
	1. Azolla Unit	UAS, Bangalore	-	50.0		-	-	-
	2. Vermi compost	UAS, Bangalore	-	30.0		-	-	-
	3. Low cost Silk worm rearing Unit	UAS (B) under IFSD, GoK	2014	25.0	1,25,000	-	-	Good Condition
5	Fencing	UAS, Bangalore	-	-	3,10,000	-	-	Good Condition
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	IIPR, Khanpur	November 2018	200.0	25,00,000	-	-	Good Condition
9	Sheep and goat rearing unit	UAS, Bangalore	January 2021	2 gunts	2,00,000			Good Condition
10	Poultry rearing unit	UAS, Bangalore	January 2021	2 gunts	1,00,000			Good Condition
11	Shade net	UAS, Bangalore	January 2021	2 gunts	2,00,000			Good Condition

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor	2001 – Ford	3,60,000=00	5638 hours	Old
Power tiller	2010	1,35,000=00	Nil	Good
Jeep	2017 – Mahindra Bolero	8,00,000=00	26,067	Good
Two wheeler	2006-TVS Star city	40,000=00	5296	Good
Two wheeler	2009- Honda Activa	49,960=00	41,895	Good

C) Equipment & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Personal computers	2005	-	Good Condition
ERNET	-	-	Not functioning
Motorised screen	2008	25,875=00	Good Condition
Printer	2008	31,290=00	Good Condition
KIOSKOS	2008	1,24,569=00	Not functioning
Personal computer	2008	46,000=00	Good Condition
Projector	2008	44,900=00	Good Condition
Laser printer	2009	15,000=00	Good Condition
Linea Lamination Machine with Printer & UPS	-	5,99,500=00	Good Condition
Digital conductivity meter	2005	7,400=00	Good Condition
Digital pH meter	2005	8,550=00	Good Condition
Physical balance	2005	12,000=00	Good Condition
Hot air oven	2005	20,000=00	Good Condition
Magnetic stirrer	2005	5,500=00	Good Condition
Top loading balance	2005	48,900=00	Good Condition
Rotary shaker	2005	27,600=00	Good Condition
Double glass distillation unit	2005	48,850=00	Good Condition
Macro block digestion system	2005	52,118=00	Good Condition
Automatic distillation system	2005	85,232=00	Good Condition
Acid neutralizer scrubber	2005	23,909=00	Good Condition
Spectrophotometer	2005	42,000=00	Good Condition
Flame photometer	2005	35,200=00	Good Condition
Micro oven	2008	14,980=00	Un Serviceable
Micro scope	2008	66,555=00	Good Condition
Refrigerator	2005	30,750=00	Good Condition
Refrigerator	2008	30,750=00	Good Condition
Digital micro pipettes-one set	2008	21,180=00	Good Condition
pH meter	2008	6,600=00	Good Condition
Laminar Air flow	2009	44,900=00	Good Condition

Auto clave	2009	28,687=00	Good Condition
Eliza reader	2009	1,47,155=00	Good Condition
Cultivator	2008	22,596=00	Good Condition
Disc- plough	2009	46,154=00	Good Condition
Power weeder	2009	27,500=00	Good Condition
Cage wheel	2009	5,450=00	Good Condition
Cage wheel	2009	25,790=00	Good Condition
Drum Seeder	2009	2,750=00	Good Condition
Cone weeder	2009	1,250=00	Good Condition
Rotary weeder	2009	1,150=00	Good Condition
Cycle type wheel weeder	2009	1,250=00	Good Condition
Over head projector	2000	15,500=00	Not functioning
LCD	2007	49,323=00	Good Condition
Video Camera	2009	1,84,000=00	Good Condition
Digital camera – Sony cyber shot	2012	25,000=00	Good Condition
Podium with Center Tabl	2012	33,231=00	Good Condition
EPABX system	2012	50,000=00	Good Condition
Kenstar Air cooler	2012	4,400=00	Good Condition
3 Seat visitor Chair (2 No.)	2012	23,100=00	Good Condition
Peacock visitor Chair with arms (20 No.)	2012	57,000=00	Good Condition
Visitor Chair (30 No.)	2012	85,500=00	Good Condition
Visitor Chair (1 No.)	2012	2,850=00	Good Condition
Dias Table	2012	8,360=00	Good Condition
Dias Chair with wooden frame	2012	15,400=00	Good Condition
SMS Tables	2012	32,340=00	Good Condition
Conference Table	2012	26,410=00	Good Condition
Welcome Board	2012	4,800=00	Good Condition
Hand operated Cocoon Deflossing machine	2012	33,188=00	Good Condition
LPG stove	2012	1,447=00	Good Condition
Executive Office table	2012	31,350=00	Good Condition
Executive high back with leather seat (1 No.)	2012	11,150=00	Good Condition
Executive visitor Chair with arms & leather seat (4 Nos.)	2012	20,352=00	Good Condition
Sofa Set	2012	18,700=00	Good Condition
Web Camera	2013	948=00	Good Condition
Paddy drum seeder	2013	4,800=00	Good Condition
Mixer	2013	3,000=00	Good Condition
Display boards (19 Nos.)	2013	26,208=00	Good Condition
White Writing Board	2013	1,500=00	Good Condition
Iron Magazine stand	2014	3,800=00	Good Condition
Iron Rack	2014	2,100=00	Good Condition
Iron Board	2014	8,925=00	Good Condition
D'Link Wifi Router	2016	2,500=00	Good Condition

Xerox Machine	2016	89,641=00	Good Condition
Display Showcase with pre laminated	2016	27,000=00	Good Condition
Digital Weighing Machine	2016	3,900=00	Good Condition
Coconut Tree Climber	2016	3,100=00	Good Condition
Hard Disk	2016	5,200=00	Good Condition
White writing Board (7 Nos.)	2016	3150=00	Good Condition
Steel Almirhas (3 Nos.)	2016	36,068=00	Good Condition
Book Case (Steel)	2016	7,500=00	Good Condition
Filing Cabinet (Steel) (2 No.)	2016	21,000=00	Good Condition
Magazine Rack	2016	12,489=00	Good Condition
Personal Weighing balance	2016	1,250=00	Good Condition
Hp Desktop system (2 Nos.)	2016	31,000=00	Good Condition
Speakers (2 Nos.)	2016	1,000=00	Good Condition
Head phone (2 Nos.)	2016	840=00	Good Condition
Deltron Stabilizer	2016	1,397=00	Good Condition
Electronic Balance	2016	19,923=00	Good Condition
CCTV Camera and accessories	2016	19,495=00	Good Condition
LAN and Accessories	2016	31,486=00	Good Condition
Amplifier	2017	23,615=00	Good Condition
Hp Laptop	2017	36,500=00	Good Condition
Epson Color printer	2017	10,800=00	Good Condition
UPS and Batteries with batteries (4 No.)	2017	51,985=00	Good Condition
Water Purifier (RO Grand + 12 L storage)	2017	16,511=00	Good Condition
Sony 32" LED TV	2017	31,000=00	Good Condition
Hard Disk (1 TB)	2017	4,500=00	Good Condition
Vertical autoclave	2020	1,64,000=00	Good Condition

1.8. Details of SAC meeting conducted during 2021

Date	Number of Participants	Salient Recommendations	Action taken	Remarks, if any
23.02.2021	45	Converge the activities of line departments in adopted village for effective implementation.	<ul style="list-style-type: none"> • Conducted animal health campaign with the help of veterinary department. Fifty seven animals were treated during the programme. • Tree planting campaign was conducted on 05.06.2020 with the help of Forestry department. • Two trainings on horticulture crops for fifty farmers were conducted along with department of Horticulture 	-
		Conduct demonstrations and training on tomato pin worm, integrated crop management and intercropping in coconut.	<ul style="list-style-type: none"> • Demonstrations on pinworm management in tomato were conducted at Juttanahalli village. • Two on campus and one off campus trainings were conducted and fifty nine farmers were benefited by the training. • Twice messages regarding pinworm management were sent to 45530 farmers via mKisan portal. • Inter cropping of French bean var. Arka Arjun in coconut garden will be taken in the month of March-2021. 	-
		Create awareness to farmers on field problems observed during field visits of the district through SMS	Forty two short messages regarding different crops were sent to 47250 farmers via mKisan portal.	-
		Conduct trainings on control measures of Rugose white fly in Coconut to the farmers of the district.	<ul style="list-style-type: none"> • Three off campus training (29.07.2020, 05.08.2020 & 25.09.2020) to ninety five farmers and one on campus training (14.10.2020) to thirty farmers were conducted on ICM in coconut. • Conducted off campus training on ICM in coconut on 27.01.2021 to hundred and ten farmers along with department of Horticulture, Maddur. • One off campus training on 29.09.2020 was conducted to FPO members of Maddur taluk. • Twice messages regarding rugose white fly management in coconut were sent to 45530 farmers via mKisan portal. 	-

		<p>Conduct trainings and demonstrations on Bivoltine silkworm rearing practices, Tree mulberry plantation and control of leaf roller outbreak.</p>	<ul style="list-style-type: none"> • Conducted training program on “Popularization of improved bi-voltine silkworm hybrid and tree mulberry plantation at Mallanayakanakatte, KVK, Madegowdanakoppalu and H.Kodihalli to 117 farmers on 19.09.2020, 09.10.2020 and 18.01.2021. • Conducted training programme (Off and On campus) on “Management of leaf roller in mulberry” at KVK, Madegowdanakoppalu, Thippapura, Chottanahalli and Marilinganadoddi to 113 farmers on 02.09.2020, 18.09.2020, 18.11.2020, 28.01.2021 and 06.02.2021 and also 2 times SMS sent through mKisan portal. 	-
		<p>Organize trainings to farmers on improved fodder crops for dairy farming.</p>	<ul style="list-style-type: none"> • One on campus training on improved cultivation of fodder crops was conducted on 15.09.2020 and 25 farmers were benefited. • Ten demonstrations of COFS-29 multi cut sorghum was conducted in Mallanayakanakatte and Hullenahalli village. 	-
		<p>Activities under Paramparagath Krishi Vikas Yojana (PKVY) has to be taken up on selected farmers by motivating them for organic farming and complete the program successfully.</p>	<ul style="list-style-type: none"> • The activities of PKVY were conducted in Sollepura village of Maddur taluk. The farmers were selected and trained on different subject regarding organic farming. • Method demonstrations on use of pheromone traps in coconut, bordeaux mixture preparation for controlling diseases in different crops, compost and vermin compost preparation were taken. • To improve the soil fertility the inputs like neem cake, dahincha, sesbania seedlings were provided to farmers. • Demonstration on indigenous paddy variety sidda sanna in 10 ha. and drumstick were taken. • Few farmers have also under taken banana and sugarcane cultivation under organic farming and have been motivated to prepare chemical free jaggery. 	-

PART II - DETAILS OF DISTRICT

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

S. No.	Farming system/enterprise
1	Paddy-Paddy
2	Mulberry-Mulberry
3	Paddy- Sugarcane
4	Sugarcane-Sugarcane
5	Sugarcane-Paddy
6	Ragi-Ragi
7	Ragi-Legume-Ragi
8	Vegetables-Ragi
9	Vegetables-Vegetables

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

S. No	Agro-climatic Zone	Characteristics
1.	Zone-6 (Karnataka)- Southern dry zone	Average rainfall- 670.6-888.6 mm per annum Elevation in m- 800-900 m in major area an 450-800 in remaining area Soil type- Red sandy loam in major area and small packets of red loam and black soil Water source- Cauvery command area (46% of cultivable land) Rainfed (54% of cultivable land)

S. No	Agro ecological situation	Characteristics
1.	Agro-ecological sub region-4	Hot moist, semi arid ecological sub division with length of growing period of 150-180 days

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Red sandy loam	Colour- Red Texture: Sandy loam Soil reaction: Acidic- Neutral (Rainfed), Neutral- Alkaline (Irrigated) Organic carbon: Low – Medium	71-73
2.	Black soil	Colour- Black Texture: Clay loam Soil reaction: Neutral – Alkaline Organic carbon: Low – Medium	18-20
3.	Shallow sandy loam	Colour- Red Texture: sandy loam Soil reaction: Neutral – Alkaline Organic carbon: Low – Medium	9-10

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

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
1.	Paddy	89285	255290	3046
2.	Ragi	79670	109004	1504
3.	Sericulture (cocoon)	17400	12600	500
4.	Jowar	226	462	245
5.	Maize	5938	7859	4572
6.	Groundnut	1729	8234	854
7.	Niger	1236	283	220
8.	Sesamum	1342	738	550
9.	Castor	1500	1425	950
10.	Other oil seeds	9867	-	-
11.	Horse gram	9648	5634	496
12.	Cowpea	4237	1980	440
13.	Green gram	400	150	375
14.	Black gram	400	176	440
15.	Other pulses	27933	-	-
16.	Sugarcane	39845	1558620	42358
17.	Fruits	16381	334154	20400
18.	Vegetables	16047	355044	22130
19.	Flowers	1619	12731	7860

* Dept. of Agriculture and Horticulture, Mandya District

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
January 2020	9.1	30.1	18.3	90
February 2020	0	31.4	17.6	83
March 2020	0	33.3	20.2	86
April 2020	78.2	34.0	21.0	91
May 2020	179.6	33.0	21.0	92
June 2020	58.4	29.0	19.0	91
July 2020	99.5	29.0	19.0	95
August 2020	67.1	29.2	19.3	89
September 2020	149.2	30.9	19.0	90
October 2020	222.5	31.4	18.8	92
November 2020	59	31.1	18.0	90
December 2020	9.2	28.0	17.2	91

* Please provide latest data from authorized sources. Please quote the source

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

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	352000	170 (milk)	-
<i>Indigenous</i>			
Buffalo	168345	71 (milk)	-
Sheep			
<i>Crossbred</i>	383395	2632 (meat)	-
<i>Indigenous</i>			
Goats	244294	2598 (meat)	-
Pigs	6875	-	-
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	-	-	-
Rabbits	-	-	-
Poultry			
Hens	530150	-	-
<i>Desi</i>	-	-	-
<i>Improved</i>	-	-	-
Ducks	-	-	-
Turkey and others	-	-	-
Fish			
<i>Marine</i>	-	-	-
<i>Inland</i>	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

* Source: Department of Animal Husbandry and Veterinary Services, Mandya, Karnataka

2.7 District profile maintained in the KVK has been **Updated** for 2020: Yes

2.8 Details of Operational area / Villages

Sl. No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Mandya	Dudda	Hullenahalli,	2	Paddy, Ragi, Sericulture & vegetables	Pest & Disease management, lack of awareness improved varieties / hybrids	ICM practices & Integrated Pest and Disease management
2.	Maddur	C.A. Kere	Yadaganahalli, Nellur	2	Paddy, Ragi, Sericulture	Pest & Disease management, lack of awareness on farm mechanization	ICM practices & Integrated Pest and Disease management
3.	Malavalli	Kasaba	Nelamaka`nahalli	2	Paddy, Maize, Ragi Vegetables & Sericulture	Pest & Disease management, lack of awareness on improved varieties	Demonstration of improved varieties
4.	Nagamangala	Kasaba	Brahmadevarahalli	2	Vegetables	Pest and disease management, Imbalance nutrient application, indiscriminate use of PP chemicals	Integrated Crop Management, Nutrient Management, improved varieties of vegetables
5.	Pandavapura	Melukote	Jakkanahalli	1	Vegetables	Pest & disease management, non use of improved varieties	Integrated Pest and Disease management, use of improved varieties

2.8 Details of Benchmark Information collected from DFI villages

Sl. No.	Taluk	Name of the block	Name of the village	Name of the Head of Household	Annual Gross Income (Rs.)	Annual Expenditure (Rs.)	Annual Net Income (Rs.)
1.	Malavalli	Malavalli	Nellor	Channewgoda	88000	71000	17000
2.	Mandya	Dudda	Thippapura	Manjegowda	365000	240000	125000
3.	Mandya	Dudda	Chikka gangawadi	Boregowda	448000	202000	246000
4.	Mandya	Dudda	Chikka gangawadi	Jagadish	444000	222000	222000
5.	Mandya	Dudda	Chikka gangawadi	Kumara	438000	240000	198000
6.	Mandya	Dudda	Chikka gangawadi	Ramegowda	642000	277200	364800
7.	Malavalli	Kasaba	Nelamakanahalli	Surendra	360000	181200	178800
8.	Malavalli	Kasaba	Nelamakanahalli	Nagaraju	252000	204000	48000
9.	Malavalli	Kasaba	Nelamakanahalli	Siddaraju	192000	156000	36000
10.	Malavalli	Kasaba	Nelamakanahalli	Lakshman	324000	281400	42600
11.	Nagamangala	Kasaba	Brahmadevarahalli	Manjunath	250000	190000	60000
12.	Nagamangala	Kasaba	Hurulinganahalli	Darshan, K.M.	780000	720000	60000
13.	Nagamangala	Kasaba	Brahmedevarahalli	Vinod	1584000	1232000	352000
14.	Nagamangala	Kasaba	Brahmedevarahalli	Jagadeesh	300000	182000	118000

2.10 Priority thrust areas

S. No	Thrust area
1.	Water saving technologies / farm equipments
2.	High yielding varieties / hybrids in mulberry, silkworm rearing
3.	Problematic soil and their management
4.	Improved cultivation practices for Vegetables and silkworm rearing practices
5.	Nutrient management in vegetables and mulberry
6.	Insects and Disease management in paddy, pulses and Silkworm rearing
7.	Value addition to millets

PART III - TECHNICAL ACHIEVEMENTS (2020)

3.A. Target and Achievements of mandatory activities

OFT				FLD			
1				2			
OFTs (No.)		Farmers (No.)		FLDs (No.)		Farmers (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
4	4	12	12	18	17	140+1SHG	130+1 SHG

Training				Extension Programmes			
3				4			
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
25	25	600	778	1300	1850	10300	12220

Seed Production (Q)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
100.0	206.5	2000	35261

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
-		8	
Target	Achievement	Target	Achievement
-	-	500	896

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
													No.	Kg
5.	-	Paddy	Low yield and quality, lack of awareness on micro nutrient application, Boron deficiency in soil	-	Nutrient management in paddy for yield enhancement under salt affected soils	1	-	-	2	2.5 paddy 2.5 Dhaincha	-	-	-	-
6.	-	Paddy	Incidence of blast (65-70%), sheath blight (32%), BPH (28%) and stem borer in paddy, Indiscriminate use of N fertilizers and Low yield & poor quality	-	Integrated pest and disease management in paddy	2	2	-	8	-	-	-	50	-
7.	-	Maize	Lack of knowledge on pest and disease management	-	Integrated crop management in maize	1	-	-	2	0.6	-	-	-	4
8.	-	Finger millet	Low yield , Lack of short duration varieties, Low income	-	Demonstration of short duration ragi variety KMR-630	1	-	-	2	0.5	-	-	-	2
9.	-	Capsicum	Improper nutrient schedule, and pest and disease management	-	Integrated crop management for capsicum production	-	-	-	1	-	-	-	10	60
10.	-	Papaya	Improper	-	Integrated	-	-	-	4	-	-	-	5	45

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions											
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products		
														No.	Kg
			nutrient schedule, lack of awareness on use of micronutrients		nutrient management in papaya										
11.	-	Tomato	Severe pest and disease incidence, indiscriminate use of PP chemicals	-	Demonstration of tomato Hyb. Arka Abhed	1	-	-	10	0.01	-	-	5	30	
12.	-	Cabbage	DBM (>42%) infestation, Poor quality head, Black rot, Poor nutrient management	-	Integrated crop management in cabbage	1	-	-	4	-	-	-	5	10	
13.	-	French bean	Mono-cropping, no appropriate use of space	-	Intercropping of French bean in coconut garden	-	-	-	-	-	-	-	-	-	
14.	-	Bhendi	Higher incidence of Bhendi yellow vein Mosaic, Low yield	-	Integrated crop management in bhendi	1	-	-	1	0.15	-	-	-	40	
15.	-	Betel vine	Lack of knowledge on bio-agents and ICM practices	-	Integrated crop management in betel vine	-	-	-	3	-	-	-	-	65	
16.	-	Banana	Improper nutrient management, Lack of knowledge on bio-agents and ICM practices	-	Integrated crop management in banana	1	-	-	5	-	-	-	-	65	

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products	
													No.	Kg
17.	-	Fodder	Low yield, Lack of awareness of High yielding multicut sorghum variety	-	Demonstration of high yielding multicut sorghum CoFS-29	1	-	-	2	0.2	-	-	-	-
18.	-	Sericulture	Lack of awareness on Improved hybrids	-	Popularization of improved silkworm hybrid FC-1 x FC-2	2	-	-	5	100 DFLs	-	-	-	-
19		Silkworm	Uneven maturation, Wastage of Mulberry leaf		Demonstration of phytoecdysteroid for synchronized maturation of	2	-	-	6	-	-	-	-	-
20		Mulberry			Integrated nutrient management in mulberry	2	-	-	5	-	-	-	-	-
21		Mulberry			Intercrops in wider spaced mulberry garden	2	-	-	4	0.5	-	-	-	-
22		Foxtail millet	Low income realization due to lack of knowledge on processing, value addition, labeling, packaging and branding		Microenterprise in foxtail millet for economic empowerment of foxtail growers (EDP)	2	-	-	4	-	-	-	-	-

3.B2. Details of technology used during reporting period

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1	Assessment of crops for paddy cropping system	TNAU	Paddy	3			
2	Assessment of different compost cultures in composting of sericulture wastes	NCOF, Ghaziabad	Waste recycling	3	-		
3	Assessment on management of mosaic virus in ridge gourd through integrated approach	IIVR, Varanasi	Ridgegourd	3	-		
4	Assessment on management of uzifly in silkworm rearing	CSRTI, Mysuru	Sericulture	3	-		
5	Nutrient management in paddy for yield enhancement under salt affected soils	UAS-B	Paddy	-	10	1	
6	Integrated pest and disease management in paddy	UAS-B	Paddy	-	10	2	
7	Integrated crop management in maize	UAS-B	Maize	-	10	1	
8	Demonstration of short duration ragi variety KMR-630	UAS-B	Finger millet	-	10	1	
9	Integrated crop management for capsicum production	IIHR, B'lore	Capsicum	-	10	2	
10	Integrated nutrient management in papaya	IIHR, B'lore	papaya	-	05	1	
11	Demonstration of tomato Hyb. Arka Abhed	IIHR, B'lore	tomato	-	05	2	
12	Integrated crop management in cabbage	IIVR, Varanasi	cabbage	-	05	1	
13	Intercropping of French bean in coconut garden	IIHR, B'lore & UAS-B	French bean	-	05		
14	Integrated crop management in bhendi	IIHR, B'lore	bhendi	-	10	1	
15	Integrated crop management in betel vine	UAS-B	betel vine	-	05	1	
16	Integrated crop management in banana	IIHR, B'lore & UAS-B	banana	-	05	1	
17	Demonstration of high yielding multicut sorghum CoFS-29	UAS-B	sorghum	-	10	1	
18	Popularization of improved silkworm hybrid FC-1 x FC-2	CSRTI, Mysuru	Silkworm rearing	-	05	1	
19	Demonstration of phyto ecdysteroid for synchronized maturation of silkworms	CSRTI, Mysuru	Silkworm rearing	-	10	1	
20	Integrated nutrient management in mulberry	CSRTI, Mysuru	Mulberry		10	1	
21	Intercrops in wider spaced mulberry garden	CSRTI, Mysuru	Mulberry		10	1	
22	Microenterprise in foxtail millet for economic empowerment of foxtail growers (EDP)	UAS-B	Foxtail millet		1 SHG	3	

3.B2 contd..

No. of farmers covered															
OFT				FLD				Training				Others (Specify)			
General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
8	2	1	1	96	24	16	4	856	255	302	56	3993	1452	3007	196

Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total										

4.A3. Abstract on the number of technologies assessed in respect of livestock enterprises : Nil

Thematic areas	Cattle	Poultry	Piggery	Rabbit	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management						
Feed and Fodder						
Small Scale income generating enterprises						
TOTAL						

4.A4. Abstract on the number of technologies refined in respect of livestock enterprises : Nil

Thematic areas	Cattle	Poultry	Piggery	Rabbit	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management						
Feed and Fodder						
Small Scale income generating enterprises						
TOTAL						

4.B. Achievements on technologies Assessed and Refined

4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all Technological Options in a farm)
Integrated Nutrient Management					
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management	Pulses	Assessment of crops for paddy cropping system	3	3	0.6
Integrated Disease Management		Assessment on management of mosaic virus in ridge gourd through integrated approach	3	3	0.6
		Assessment on management of uzifly in silkworm rearing	3	3	-
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Waste management	Composting	Assessment of different compost cultures in Composting of Sericulture waste	3	3	-
Total			9	9	1.2

4.B.2. Technologies Refined under various Crops: Nil

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all Technological Options in a farm)
Integrated Nutrient Management					
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

4.B.3. Technologies assessed under Livestock and other enterprises: Nil

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total				

4.B.4. Technologies Refined under Livestock and other enterprises: Nil

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total				

4.C1.Results of Technologies Assessed**OFT-1:**

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield	Gross Return Rs. / unit	Net Return Rs. / unit	BC Ratio (Gross income/ Gross Cost)
1	2	3	4	5	6	7	8	9	10	11	12	13
Paddy	Irrigated	Shortage of water for irrigation, Mono cropping, high cost of cultivation	Assessment of crops for paddy cropping system	3	T.O.1 (Farmers practice): Paddy – Cowpea	Farmers practice/ UAS (B)	Ongoing					
					T.O.2: Paddy – Sesamum	UAS (D)						
					T.O.3: Paddy – Black gram	TNAU						

4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1. Title of Technology Assessed : Assessment of crops for paddy cropping system
2. Performance of the Technology on specific indicators
3. Specific Feedback from farmers
4. Specific Feedback from Extension personnel and other stakeholders
5. Feedback to Research System based on results and feedback received

OFT-2:

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield		Gross Return Rs. / unit	Net Return Rs. / unit	BC Ratio (Gross income/ Gross Cost)
1	2	3	4	5	6	7	8	9	10		11	12	13
									Total carbon	pH			
Compost culture		Unscientific disposal of Sericulture wastes, environmental contamination, lack of knowledge on better utilization of sericulture wastes	Assessment of different compost cultures in composting of sericulture wastes	3	T.O.1 (Farmers practice): Seri farm waste + cow dung slurry	FP	7.85	quintals	33.03%	7.74	2220	1970	8.88
					T.O.2: Seri farm waste + cow dung slurry + Microbial culture	UAS, Bangalore	8.20	quintals	27.46%	7.71	6108	5448	9.25
					T.O.3: Seri farm waste + Rock phosphate + Microbial culture	CSRTI, Mysore	8.50	quintals	26.43%	7.42	6600	5640	6.87
					T.O.4: Seri farm waste + Waste decomposer (2 Kg Jaggery in 200 L water + waste decomposer) To4 N1: 20ltrs waste decomposer solution	NCOF, Ghaziabad	8.00	quintals	32.23	7.75	3434	2999	7.89
					To4N2: 50ltrs waste decomposer solution		8.60	quintals	31.76	7.67	6608	6073	12.35
					To4N3: 100ltrs waste decomposer solution		8.70	quintals	23.60	7.55	7056	6371	10.30
					To4N4: 200ltrs waste decomposer solution		8.75	Quintals	23.55	7.36	7514	6729	9.57

4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1. Title of Technology Assessed: Assessment of different compost cultures in composting of sericulture wastes
2. Performance of the Technology on specific indicators: The technology microbial consortia NCOF, Ghaziabad has performed well on composting of seri waste from rearing
3. Specific Feedback from farmers: - Composting is easy and faster which will be helpful for use of other crops too in addition to mulberry cultivation
4. Specific Feedback from Extension personnel and other stakeholders: -
5. Feedback to Research System based on results and feedback received: Use of NCOF, Ghaziabad microbial consortia at 200 litres for converting 1 ton of seri-waste has resulted in better yield of compost and at faster rate. The microbial consortium is of low cost and number of cycles of conversion of seri waste (4.29) is more per year

OFT-3

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield	Gross Return Rs. / unit	Net Return Rs. / unit	BC Ratio (Gross income/ Gross Cost)	
1	2	3	4	5	6	7	8	9	10	11	12	13	
Ridgegourd	Irrigated	Severe incidence of YMV (> 38%)	Assessment on management of mosaic virus in ridge gourd through integrated approach	3	T.O.1 (Farmers practice): Imidacloprid 17.8 SL (0.1%), Thiomethaxam 25 WG (0.05%), Acetamiprid 20%SP 0.1%, Diafenthiuron 500 SC (0.1%), Acephate 0.15%	Farmers Practice	28.65	t/ha	YMV incidence	24.98	581256	435355	3.98
					T.O.2: Seed treatment with imidacloprid (70 WG) – 5g/kg seeds, Sowing of border crop (SA Tall maize) – 35 -40 days before sowing of ridge gourd, Spraying of Imidacloprid 17.8 SL (30 DAS) & Thiomethaxam 25 WG (45 DAS)	UAS, Bangalore	29.97	t/ha	YMV incidence	20.34	565720	425203	4.02
					TO3: Sowing of border crop (SA Tall maize) – 35 -40 days before sowing of ridge gourd, soil application of carbo furan 1.5 kg/ha., 5% NSKE spray Spraying of Imidacloprid 17.8 SL (30 DAS)	IIHR, B'lore	30.64	t/ha	YMV incidence	16.58	550824	408199	3.86

					T.O.4: Seed treatment with Thiomethaxam 25 WG – 5g/kg seeds, Mulching with black silver mulch, Intercropping with two rows of border crops of maize , Soil application of Pseudomonas fluorescens along with neem cake, Installation of yellow sticky trap @ 10no/acre Spraying of neem soap (5g/L), Salicylic acid 2mM and Entomopathogenic fungus Beauveria bassiana @ 1litre/acre, Thiamethoxam 25% WG (0.05%) and Imidacloprid 17.8 SL (0. 1%)	IIVR, Varanasi	35.06	t/ha	YMV incidence	7.58	696781	551466	4.80
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4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

- 1. Title of Technology Assessed :** Assessment on Management of Yellow Mosaic Virus in ridge gourd through Integrated Approach
- Performance of the Technology on specific indicators: Integrated disease management helps in reduction of diseases and also pesticide consumption
- Specific Feedback from farmers: Combination of the technology gave better yield as well as quality of gourd, locally non available of bio agents in time.
- Specific Feedback from Extension personnel and other stakeholders:
- Feedback to Research System based on results and feedback received:-

OFT-4

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield		Gross Return Rs. / unit	Net Return Rs. / unit	BC Ratio (Gross income/ Gross Cost)
1	2	3	4	5	6	7	8	9	10		11	12	13
Sericulture	Irrigated	More defective cocoons least cocoon yield and price	Assessment on management of uzifly in silkworm rearing	3	T1: Fix the nylon net to windows and doors	(Farmers Practice)	80.06	100 DFLs	3.00	6.67	40028	25618	2.78
					T2: Fix the Nylon Net and tag the 2 Pouch <i>Nesolynx thymus</i> during silkworm rearing	CSR&TI, Mysore)	85.20	100 DFLs	2.00	6.00	42600	26412	2.63
					T3: Fix the Nylon Net + Yellow Sticky Trap	KSSRDI, Bangalore)	87.36	100 DFLs	4.67	7.33	43682	26209	2.50
					T4: Fix the Nylon Net + Sex Pheromone Trap	CSR&TI, Mysore)	87.59	100 DFLs	1.67	6.00	43793	28903	2.94

4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1. **Title of Technology Assessed :** Assessment on management of uzifly in silkworm rearing
2. Performance of the Technology on specific indicators: Integrated management of uzi fly
3. Specific Feedback from farmers: Combination of nylon net + yellow sticky trap with pheromone trap and Nesolynx thymus parasitoid can control uzi fly effectively .
4. Specific Feedback from Extension personnel and other stakeholders:
5. Feedback to Research System based on results and feedback received:-

4.D1. Results of Technologies Refined : Nil

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Refined	Source of technology	Yield	Unit of yield	Observations other than yield	Gross Return Rs. / unit	Net Return Rs. / unit	BC Ratio (Gross income/ Gross Cost)
1	2	3	4	5	6	7	8	9	10	11	12	13
Sericulture	Irrigated		Assessment on management of uzifly in silkworm rearing		T.O.1 (Farmers practice)							
					T.O.2							
					T.O.3							

4.D.2. Details of Technologies refined:

1. Title of Technology Refined
2. Performance of the Technology on specific indicators
3. Specific Feedback from farmers
4. Specific Feedback from Extension personnel and other stakeholders
5. Feedback to Research System based on results/feedback received

PART V - FRONTLINE DEMONSTRATIONS (2020)

5.A. Summary of FLDs implemented

Sl. No	Category	Farming Situation	Season	Crop	Variety / breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ST	Others	Small/Marginal	Others
	Oilseeds													
	Pulses													
	Cereals													
		Irrigated	Kharif	Paddy	Gangavathisona	-	Nutrient Management	<ul style="list-style-type: none"> ▪ Rec. dose of fertilizer (RDF): 100:50:50 NPK kg/ha. + ZnSo4 20 kg/ha (25% higher application of Rec. fertilizers under salt affected) ▪ Advisory green manuring ▪ Foliar Spray of 0.2% Boron at flowering ▪ Use of salt tolerant variety 	4.0	4.0	2	8	10	-
		Irrigated	Kharif	Paddy	Hybrid	-	Pest & Disease management	<ul style="list-style-type: none"> ▪ Seed treatment with Carbendazim 4 g/kg ▪ Neem cake (250 Kg / ha) ▪ Clipping off tip of the rice seedling ▪ Release of Trichogramma (25 cards / ha), ▪ Use of Pheromone traps (15 /ha) ▪ Kitazin 0.2% ▪ Chloropyriphos 20 EC (2ml/L) 	4.0	4.0	1	9	10	-
		Irrigated / Rainfed	Kharif	Maize	-	MAH-14-5	Introduction of new hybrid	<ul style="list-style-type: none"> ▪ Introduction of hybrid Maize MAH-14-5. ▪ Seed treatment with biofertilizer (Azospirillum and PSB @ 200g/acre each) ▪ Application of Zinc sulphate (8kg/acre) ▪ Application of pre emergence herbicide ▪ Atrazine @1 kg a.i. /ha ▪ Application of need based plant protection chemicals 	4.0	4.0	-	5	5	-
	Millets	Irrigated / Rainfed	Kharif	Ragi	KMR 630	-	Introduction of new variety	<ul style="list-style-type: none"> ▪ Introduction of new and short duration variety KMR 630 ▪ Application of FYM @ 4 t/acre ▪ Seed treatment with biofertilizer (Azospirillum @ 200g/acre) ▪ Line sowing 	4.0	4.0	-	10	10	-
	Vegetables	Irrigated	Kharif	Capsicum	Indra	-	INM	<ul style="list-style-type: none"> ▪ FYM @ 25t/ha + Trichoderma @ 2kg /ha + Pseudomonas @ 2 kg /ha ▪ NPK 150:75:50 kg/ha (50% N & 100% P, K as basal dose, remaining 50%N @ 30 DAS) ▪ Vegetable special 5 g/ L ▪ Sowing at spacing 60 x 45 cm ▪ Pongamia/ Neem soap 10gm/l for thrips, mites and aphids ▪ Yellow sticky traps 25 No./ha ▪ Blue sticky traps 20 No./ha and marigold crop as border and need based pp chemicals 	4.0	4.0	2	8	10	-
		Irrigated	Kharif	Tomato	-	Arka Abhed	Pest and disease management	<ul style="list-style-type: none"> ▪ Hybrid Seed Arka Abhed ▪ Use of bio-agent enriched FYM ▪ Growing marigold as trap crop ▪ Spray of vegetable special 	2.0	2.0	-	5	5	-

Sl. No	Category	Farming Situation	Season	Crop	Variety / breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ST	Others	Small/Marginal	Others
	Commercial													
	Medicinal and aromatic													
	Fodder													
		Irrigated	Kharif	Fodder Sorghum	COFS-29	-	Varietal introduction	▪ Multicut sorghum variety CoFS-29	4.0	4.0	2	8	10	-
	Plantation													
	Fibre													
	Dairy													
	Poultry													
	Rabbitry													
	Piggery													
	Sheep and goat													
	Duckery													
	Common carps													
	Mussels													
	Ornamental fishes													
	Oyster mushroom													
	Button mushroom													
	Vermicom post													
	Sericulture	Irrigated	Kharif	Silkworm rearing	-	FC-1 x FC-2	Popularization of improved variety	Silkworm Bivoltine double hybrid FC-1 x FC-2	-	-	-	5	5	-
		Irrigated	Kharif	Silkworm	-	PM x CSR2	Uniform maturation	Phytoecdysteroid (Sampoorna) to 5th instar silkworm through mulberry leaf @ 2.5 mg/100 ml	-	-	10	10	10	-

Sl. No	Category	Farming Situation	Season	Crop	Variety / breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ST	Others	Small/Marginal	Others
				rearing				water / kg of leaf/1000 silkworms						
		Irrigated	Kharif	Mulberry	V-1	-	Nutrient Management	7ml of Poshan/lt Spraying on Mulberry leaves after 25-30 days after pruning	2.0	2.0	1	9	10	-
		Irrigated	Kharif	Mulberry	V-1	-	ICM	Mulberry with fodder crops (Cowpea) Improving soil fertility	4.0	4.0	2	8	10	-
	Apiculture													
	Implements													
	Others (specify)													

5.A. 1. Soil fertility status of FLDs plots, if analysed

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
	Oilseeds	-	-	-	-	-	-	-	-	-	-	-	
1	Pulses												
2	Cereals												
3		Irrigated	Kharif	Paddy	Gangavathisona	-	Nutrient Management	<ul style="list-style-type: none"> ▪ Rec. dose of fertilizer (RDF): 100:50:50 NPK kg/ha. + ZnSo4 20 kg/ha (25% higher application of Rec. fertilizers under salt affected) ▪ Advisory green manuring ▪ Foliar Spray of 0.2% Boron at flowering ▪ Use of salt tolerant variety 	Kharif 2020	332.32	28.08	134.31	Paddy
4		Irrigated	Kharif	Paddy	Hybrid	-	Pest & Disease management	<ul style="list-style-type: none"> ▪ Seed treatment with Carbendazim 4 g/kg ▪ Neem cake (250 Kg / ha) ▪ Clipping off tip of the rice seedling ▪ Release of Trichograma (25 cards / ha), ▪ Use of Pheromone traps (15 /ha) ▪ Kitazin 0.2% ▪ Chloropyriphos 20 EC (2ml/L) 	Kharif 2020	294.50	28.62	198.28	Paddy
5		Irrigated / Rainfed	Kharif	Maize	-	MAH - 14-5	Introduction of new hybrid	<ul style="list-style-type: none"> ▪ Introduction of hybrid Maize MAH-14-5. ▪ Seed treatment with biofertilizer (Azospirillum and PSB @ 200g/acre each) ▪ Application of Zinc sulphate (8kg/acre) ▪ Application of pre emergence herbicide ▪ Atrazine @1 kg a.i. /ha ▪ Application of need based plant protection chemicals 	Kharif 2019	385.56	36.50	215.65	Ragi
6	Millets	Irrigated / Rainfed	Kharif	Ragi	KMR 630	-	Introduction of new variety	<ul style="list-style-type: none"> ▪ Introduction of new and short duration variety KMR 630 ▪ Application of FYM @ 4 t/acre ▪ Seed treatment with biofertilizer (Azospirillum @ 200g/acre) ▪ Line sowing 	Kharif 2020	310.00	34.50	189.65	Maize, Ragi

7	Vegetables	Irrigated	Kharif	Capsicum	Indra	-	ICM	<ul style="list-style-type: none"> ▪ FYM @ 25t/ha + Trichoderma @ 2kg /ha + Pseudomonas @ 2 kg /ha ▪ NPK 150:75:50 kg/ha (50% N & 100% P, K as basal dose, remaining 50%N @ 30 DAS) ▪ Vegetable special 5 g/ L ▪ Sowing at spacing 60 x 45 cm ▪ Pongamia/ Neem soap 10gm/l for thrips, mites and aphids ▪ Yellow sticky traps 25 No./ha ▪ Blue sticky traps 20 No./ha and marigold crop as border and need based pp chemicals 	Kharif 2020	266.20	42.24	215.44	Capsicum, cabbage, cucumber, Tomato
8		Irrigated	Kharif	Tomato	-	Arka Abhed	Pest and disease management	<ul style="list-style-type: none"> ▪ Hybrid Seed Arka Abhed ▪ Use of bio-agent enriched FYM ▪ Growing marigold as trap crop ▪ Spray of vegetable special ▪ Use of sticky traps, ▪ Use of Pheromone traps ▪ Use of Neem/ Pongamia soap & Need based pp chemicals 	Kharif 2020	296.67	44.79	212.23	Small onion
9		Irrigated	Kharif	Cabbage	Local	-	ICM	<ul style="list-style-type: none"> ▪ Intercropping with Mustard (trap crop) (25:2), Installation of WOTA-T traps (DBM traps) ▪ Use of Sticky traps, Spray of Bt (1ml/l), Neem Soap (5g/l) ▪ Entomopathogenic fungi (Beauveria bassiana) (0.2%), Emamectin benzoate 5SG (0.05%), Chlorfenapyr 10SC (0.1%), Spinosad 2.5SC (0.15)%, veg.spl ▪ Spraying of CoC + Streptocycline 	Kharif 2020	289.56	49.34	238.00	Cucumber, Bhendi
10		Irrigated	Kharif	Frenchbean	Arka arjun	-	ICM	<ul style="list-style-type: none"> ▪ High yielding variety : Arka Sharath/Arka Arjun ▪ Seed treatment with Rhizobium (5g/kg) ▪ Spraying with Hexaconazole (2 ml/lit) ▪ Spraying with neem soap (1%) 	Kharif 2020	296.50	29.85	200.50	Tomato
11		Irrigated	Kharif	Bhendi	-	Arka Nikhitha	ICM	<ul style="list-style-type: none"> ▪ Demonstration of high yielding F1 hybrid: Arka Nikitha (125 -130 days duration, tolerant to Bhendi yellow vein Mosaic and Yields 21-24 t/ha ,) ▪ Vegetable Special- 2gm /lit at starts at flower initiation stage and regular 15 days interval. 	Kharif 2020	310.45	32.10	189.00	Ragi
12		Irrigated	Kharif	Betel vine	-	Local	ICM	<ul style="list-style-type: none"> ▪ Arka Microbial Consortia ▪ Neem/pungamia soap to manage insect pests ▪ Yellow Sticky traps 	Kharif 2020	324.50	27.66	175.50	Betel vine
	Flowers												
	Ornamental												
13	Fruit	Irrigated	Kharif	Banana	Elakki	-	ICM	<ul style="list-style-type: none"> ▪ Arka Microbial Consortia ▪ Banana Special spray ▪ Bunch feeding (7.5g urea + 7.5 g sulphate of potash dissolved in 100 ml water + 500 g fresh cow dung) ▪ Spraying of propiconazole (1ml/lit) 	Kharif 2020	306.34	32.34	196.67	Pulses
14		Irrigated	Kharif	Papaya	Redlady	-	INM	<ul style="list-style-type: none"> ▪ FYM @ 10 kg per plant + Trichoderma 2kg and Pseudomonas 2kg ▪ NPK 250:250:500 g per plant (Entire N and K divide in 6 split application once in 2 months commencing from 2nd month of planting) ▪ Zinc sulphate 0.5% and Boron 0.1% 	Kharif 2020	310.23	35.00	187.45	Flowers, cucumber, Capsicum

									<ul style="list-style-type: none"> ▪ Sowing at spacing 1.8 x 1.8 m ▪ AMC 10ml per litre 					
	Spices and condiments													
15	Commercial	Irrigated	Kharif	Silkworm rearing	-	FC-1 x FC-2	Popularization of improved variety	Silkworm Bivoltine double hybrid FC-1 x FC-2	-	-	-	-	-	-
16		Irrigated	Kharif	Silkworm rearing	-	PM x CSR2	Uniform maturation	Phytoecdysteroid (Sampoorna) to 5th instar silkworm through mulberry leaf @ 2.5 mg/100 ml water / kg of leaf/1000 silkworms	-	-	-	-	-	-
17		Irrigated	Kharif	Mulberry	V-1	-	Nutrient Management	7ml of Poshan/lt Spraying on Mulberry leaves after 25-30 days after pruning	Kharif 2020	359.32	30.38	156.00	Mulberry	
18		Irrigated	Kharif	Mulberry	V-1	-	ICM	Intercropping of pulse crop (Cowpea) with Mulberry Improving soil fertility	Kharif 2020	320.68	29.85	184.65	Mulberry as sole crop	
	Medicinal and aromatic													
19	Fodder	Irrigated	Kharif	Fodder Sorghum	COFS-29	-	Varietal introduction	▪ Multicut sorghum variety CoFS-29	Kharif 2020	279.45	25.60	170.67	Fodder	
	Plantation													
	Fibre													

5.B. Results of FLDS

5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)			Check	% Increase	Economics of demonstration (Rs./ha)			Economics of Check (Rs./ha)		
							H	L	A			Gross Return	Net Return	BCR	Gross Return	Net Return	BCR
Oilseeds																	
Pulses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cereals																	
Paddy	Nutrient management in paddy for yield enhancement under salt affected soils	Gangavathi sona	-	Irrigated	10	4.0	43.45	40.12	41.88	33.69	24.31	67008	21456	1.47	53910	9178	1.20
Paddy	Integrated pest and disease management in paddy	Private hybrid	-	Irrigated	10	4.0	58.75	52.5	55.75	52.6	5.99	105350	99680	2.01	99680	42260	1.74
Maize	Integrated crop management in maize	-	MAH-14-5	Irrigated	10	4.0	90.48	80.20	86.75	68.20	27.19	156150	118500	4.14	122760	81360	2.96
Millets																	
Ragi	Demonstration of short duration ragi variety KMR 630	KMR-630	-	Irrigated / Rainfed	10	4.0	42.68	30.20	37.50	26.50	41.50	120000	81400	3.10	84800	41450	1.95
Vegetables																	
Capsicum	Integrated crop management for capsicum production		Indra Private	Irrigated	10	4.0	384.0	342.0	362.6	297.1	22.05	507696	390896	4.30	415982	291182	3.30
Papaya	Integrated nutrient management in papaya	Redlady		Irrigated													
Tomato	Demonstration of tomato Hyb. Arka Abhed	-	Arka Abhed	Irrigated	5	2.0	680	660	673	586	14.88	673200	510000	4.13	586000	395600	3.08

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)			Check	% Increase	Economics of demonstration (Rs./ha)			Economics of Check (Rs./ha)		
							Demo					Gross Return	Net Return	BCR	Gross Return	Net Return	BCR
							H	L	A								
Fodder	Demonstration of high yielding multicut sorghum CoFS-29																
Plantation																	
Fibre																	
Value addition	Microenterprise in foxtail millet for economic empowerment of foxtail growers (EDP)	-	-	-	1	-	-	-	-	-	-	9018	6602	3.73	4500	2557	2.31

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

H – Highest Yield, L – Lowest Yield A – Average Yield

Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/diseases etc.)

	Data on other parameters in relation to technology demonstrated		
	Parameter with unit	Demo	Check
Nutrient management in paddy for yield enhancement under salt affected soils	Plant height (cm)	75.04	63.42
	No. of productive tillers	15.30	11.50
	No. of filled grains per panicle	210.83	141.50
Integrated pest and disease management in paddy	Plant height (cm)	111.12	109.28
	No. of tillers	20.4	20.08
	Length of panicle (cm)	24.41	24.324
Integrated crop management in maize	Plant height (cm)	205	189
	Cob girth (cm)	5.60	4.94
	No. of lines/ cob	15.34	12.82
	No. of grains/ cob	555	486
	Cob length (cm)	18.68	18.54
Demonstration of short duration ragi variety KMR-630	Plant height (cm)	107.34	119.60
	No. of tillers/ plant	4.42	3.80
	No. of fingers/panicle	8.58	6.45
	Finger length (cm)	9.30	7.86
Integrated crop management for capsicum production	Plant height (cm)	71.17	68.47
	No. of fruits per plant	54.80	42.60
	No. of pickings	10-12	7-8
	Incidence of thrips (%)	6.00	11.40

Demonstration of tomato Hyb. Arka Abhed	Plant height (cm)	146.2	105.44
	Fruit weight (g)	93.06	87.04
	Pinworm incidence on fruit	4.76	13.24
Integrated crop management in Cabbage	Head weight (kg)	1.47	1.38
	DBM incidence (30 DAT)	9.33	17.33
	DBM incidence (60 DAT)	13.06	25.60
Integrated crop management in bhendi	Plant height (cm)	299.50	240.50
	YVMV incidence (%)	0.00	10.12
Integrated crop management in betel vine	Foot rot incidence (%)	4.40	22.40
Integrated crop management in banana	Bunch weight (kg)	17.30	13.70
	Panama wilt incidence (3 MAP)	0.0	1.80
	Panama wilt incidence (6 MAP)	1.17	5.33
	Panama wilt incidence (9 MAP)	2.73	9.17
Popularization of improved silkworm hybrid FC-1 x FC-2	Direct larval weight (g)	5.571	5.012
	Cocoon weight (g)	2.094	1.914
	Shell ratio (%)	21.88	21.38
Demonstration of phytoecdysteroid for synchronized maturation of silkworm	Direct larval weight (g)	5.242	5.005
	Cocoon weight (g)	1.972	1.832
	Shell ratio (%)	21.45	20.97
Integrated nutrient management in mulberry	No. of leaf (No.)	158	143
	Plant height (cm)	164.7	154.1
Intercrops in wider spaced mulberry garden	No. of leaf (No.)	153	138
	Plant height (cm)	165	148

Nutri garden

Table :1 Food consumption pattern of the farm family (N=25)

Sl.No.	Food consumption pattern	Category	No.	%
1	Food habits	Vegetarian	04	16
		Non-Vegetarian	21	84
2	Frequency of non-veg consumption	Monthly four times	14	56
		Monthly thrice	03	12
		Monthly twice	04	16
3	Meals consumed per day	Thrice a day	25	100

Table 2 Anthropometric measurements of the farm families

BMI <18.5	BMI 18.5-22.9	BMI 23.0-24.9	BMI 25.0-29.9	BMI >29.9
Under weight (No.)	Normal (No.)	Over weight (No.)	Obese G-I (No.)	Obese G-II (No.)
15	52	11	4	2

Table.3 Demographic variables of the farm families (N=25)

Gender	Male	59
	Female	53
Age(years)	>18	84
	<18	28
Type of family	Nuclear Family	16
	Joint Family	9
Family size	Small size(1-4 member)	14
	Medium size(5- 6 members)	11
Occupational status	Home Maker and Agril.	25
Education	Illiterate	5
	Primary and Middle School	3
	High School	10
	PUC	5
	Graduation	2
Land Holding (ac.)	Small (<2.5)	14
	Medium (>2.5)	11
Family Expenditure Pattern(Rs.)/Month	Food	3414
	Education	2268
	Health and Medicine	758
	Fruits and Vegetables	1650
	others	1511.8
	Total	8787

Table 4: Average consumption of food and percentage adequacy before and after implementation of Nutri-garden by farm women (N=25)

Sl.No	Food groups(g)/day	RDA(g)	Average intake (g)		% Adequacy	
			(Average)		Before	After
			Before	After		
1	Cereals	330	347.29	350.2	105.24	106.12
2	Pulses	75	63.78	66.51	85.04	88.68
3	Milk and Milk products	300	149.4	370.32	49.8	123.44
4	Roots and tubers	200	83.04	170.4	41.52	85.2
5	Green Leafy Vegetables	100	52.8	86.8	52.8	86.8
6	Other vegetables	200	139.2	234.88	69.6	117.44
7	Fruits	100	41.2	87376	41.2	87.76
8	Sugar	30	25.28	25.74	84.28	85.8
9	Fat	25	21.8	23.22	87.2	92.88

Table 5. Changes occurred by intervention of kitchen garden

Particulars	Vegetable yield (Kg)	Purchased Vegetable (Kg)	Expenditure (Rs.)	Vegetable usage (Kg)	Consumption / person / day (g)	%Adequacy
Before nutri garden establishment	-	247.5	9900	247.5	275	55
After implementation of Nutri garden	463.06	-	2000	463.06	492	98

5.B.2. Livestock and related enterprises: Nil

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Name of the parameter with unit	Yield (kg/animal)			% Increase	*Economics of demonstration Rs./unit)			*Economics of check (Rs./unit)			
						Demo				Check if any	Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
						H	L	A								
Dairy																
Poultry																
Rabbitry																
Piggery																
Sheep and goat																
Duckery																
Others (pl.specify)																

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Data on additional parameters other than yield (viz., reduction of percentage diseases, increase in conceiving rate, inter-calving period etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check if any

5.B.3. Fisheries: Nil

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m ²)	Name of the parameter with unit	Yield (q/ha)			% Increase	*Economics of demonstration (Rs./unit)			*Economics of check (Rs./unit)			
						Demo				Check if any	Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
						H	L	A								
Common carps																
Mussels																
Ornamental fishes																
Others (pl.specify)																

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Data on additional parameters other than yield (viz., reduction of percentage diseases, effective use of land etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check if any

5.B.4. Other enterprises

Enterprise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area {m ² }	Name of the parameter with unit	Yield			% Increase	*Economics of demonstration (Rs./unit) or (Rs./m ²)			*Economics of check (Rs./unit) or (Rs./m ²)			
						Demo				Check if any	Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
						H	L	A								
Oyster mushroom																
Button mushroom																
Vermicompost																
Sericulture																
Apiculture																
Others (pl.specify)																

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Data on additional parameters other than yield (viz., additional income realized, employment generation, quantum of farm resources recycled etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Local

5.B.5. Farm implements and machinery

Name of the implement	Cost of the implement in Rs.	Name of the technology demonstrated	No. of Demo	Area covered under demo in ha	Name of the operation with unit	Labour requirement in Mandays		% save	Savings in labour (Rs./ha)	*Economics of demonstration (Rs./ha)			*Economics of check (Rs./ha)		
						Demo	Check			Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Data on additional parameters other than labour saved (viz., reduction in drudgery, time etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Local

5.B.6.Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	12	318	-
2	Farmers Training	18	540	-
3	Media coverage	12	-	-
4	Training for extension functionaries	-	-	-
5	Others (Extension Activities)	54	406	-

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)			*Economics of check (Rs./ha)		
					Demo			Check		Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
					H	L	A								
Total															
Commercial crops															
Sugarcane															
Coconut															
Others (pl.specify)															
Total															
Fodder crops															
Maize (Fodder)															
Sorghum (Fodder)															
Others (pl.specify)															
Total															

H-High L-Low, A-Average

*Please ensure that the name of the hybrid is correct pertaining to the crop specified

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production	2	45	10	55	0	9	9	0	0	64

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Apiculture										
Others (pl.specify)										
CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
Sericulture										
Integrated crop management	3	70	4	74	14	0	14	84	4	88
Double hybrid	1	46	0	46	7	0	7	46	7	53
TOTAL	27	579	63	499	97	21	109	491	62	760

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify):										
Soil Health and Fertility Management										
Soil fertility management	4	69	2	71	14	0	14	83	2	85
Integrated water management										
Integrated nutrient management										
Production and use of organic inputs	3	52	1	53	8	0	8	60	1	61
Management of Problematic soils	1	24	3	27	5	2	7	29	5	34
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	0	39	39	0	4	4	0	43	43

Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
Apiculture										
Others (pl.specify)										
CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
Sericulture										
Integrated crop management	2	41	0	41	6	0	6	47	6	53
Double hybrid	3	77	0	77	0	0	0	77	0	77
TOTAL	33	626	76	702	86	9	95	710	93	803

7.F. Details of Skill Training Programmes carried out by KVKs under ASCI

S. No.	Name of Job Role	Date of Start	Date of Close	Total Participants	No. of Participants									Date of Assessment	No of Participants passed assessment
					General			SC/ST			Grand Total				
					Male	Female	Total	Male	Female	Total	Male	Female	Total		
1	Organic Grower	17.08.2020	10.09.2020	20	9	8	17	2	1	3	11	9	20	Yet to be	

PART VIII – EXTENSION ACTIVITIES (2020)

8.1. Extension Programmes (including extension activities undertaken in FLD programmes)

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	12	272	66	338	71	23	94	27	9	36
Kisan Mela	2	855	322	1177	507	338	845	76	21	97
Kisan Ghosthi	0	0	0	0	0	0	0	0	0	0
Exhibition	8	807	345	1152	203	78	281	224	79	303
Film Show	22	167	51	218	81	35	116	21	12	33
Method Demonstrations	16	266	51	317	52	17	69	21	12	33
Farmers Seminar	0	0	0	0	0	0	0	0	0	0
Workshop	0	0	0	0	0	0	0	0	0	0
Group meetings	21	233	78	311	67	26	93	27	18	45
Lectures delivered as resource persons	35	655	262	917	185	112	297	71	47	118
Newspaper coverage	15	0	0	0	0	0	0	0	0	0
Radio talks	5	0	0	0	0	0	0	0	0	0
TV talks	0	0	0	0	0	0	0	0	0	0
Popular articles	2	0	0	0	0	0	0	0	0	0
Extension Literature	3	0	0	0	0	0	0	0	0	0
Advisory Services	739	629	110	739	211	159	370	41	29	17
Scientific visit to farmers field	166	714	271	985	176	95	271	107	37	144
Farmers visit to KVK	739	632	107	739	183	117	300	0	0	0
Diagnostic visits	8	157	65	222	35	28	63	40	17	57
Exposure visits	5	312	38	350	65	11	76	0	0	0
Ex-trainees Sammelan	0	0	0	0	0	0	0	0	0	0
Soil health Camp	2	92	15	107	18	10	28	8	8	16
Animal Health Camp	2	0	0	0	0	0	0	0	0	0
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0
Farm Science Club Conveners meet	0	0	0	0	0	0	0	0	0	0
mKisan massages	48	43798	3436	47234	3714	2947	6661	197	70	217
Self Help Group Conveners meetings	18	0	211	211	0	52	52	0	0	0
Mahila Mandals Conveners meetings	0	0	0	0	0	0	0	0	0	0
Celebration of important days	9	231	42	273	41	16	57	21	8	29
Any Other (Specify): Human Health camp	0	0	0	0	0	0	0	0	0	0
Total	1877	50911	5452	54363	5584	4084	9568	881	367	1145

8.2 Special Extension Programmes : Nil

Nature of Extension Programme	Date(s) conducted	No. of farmers (General)			No. of farmers SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Poshan Abiyan	17.09.2020	11	61	72	0	17	17	0	20	109
Swacchatha Pakwad	16.12.2020 to 31.12.2020	153	71	224	11	2	13	18	0	18
Any other, Pl. specify										

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIAL (2020)**9.A. Production of seeds by the KVKs**

Crop category	Name of the crop	Name of the Variety	Name of the Hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Paddy	Jaya	-	75	142678	Under processing
Oilseeds						
Pulses	Greengram,	KKM-3		13.25	-	40
	Blackgram,	LBG-791		86.90	-	58
	Cowpea	KBC-9		13.8	-	60
	Redgram	BRG-3		17.3	-	42
Commercial crops	Sugarcane	CoVC-0517	-	22000 sets	11000	16
Vegetables	Drumstick	PKM-1	-	3919	58785	250
Flower crops						
Spices						
Fodder crop seeds	CO-3	CO-3	-	5000 rotslips	2500	35
Fiber crops						
Forest Species						
Others (specify)	Chakramuni seedlings	Local	-	3000 seedlings	30000	600
	Sesbania	-	-	500 Seedlings	5000	25
	Cocoons	-	Double hybrid	101 k	44000	-
	Mulberry	V-1	-	2300 saplings	6900	9
	Paddy straw	Jaya	-	1 t	3000	1
Total					303863	

9.B. Production of planting material by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial	Mulberry	V-1	-	2300	6900	80
Vegetable seedlings	Curry leaf	Suhasini	-	79	1580	50
	Drumstick	PKM-1	-	3919	58785	300
Fruits	Papaya	Redlady	-	152	3041	10
Ornamental plants	-	-	-	-	-	-
Medicinal and Aromatic	-	-	-	-	-	-
Plantation	Coconut seedling	Tiptur tall	-	1732	129900	17
	Lemon	Balaji	-	79	1580	10
	Sugarcane set	VCF-571	-	22000	11000	2
Spices						
Tuber	-	-	-			
Fodder crop saplings	-	-	-	5000	2500	50
Forest Species	-	-	-			
Others(specify)	-	-	-			
Total	-	-	-	35261	215286	519

9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity (kg)	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers	-	-	-	-
Bio-pesticide	-	-	-	-
Bio-fungicide	Pseudomonas	451	44500	250
	Trichoderma	445	44500	250
Bio Agents				
Others (specify): Micro Nutrients	Banana Special	540	108000	200
	Vegetable Special	2216	443200	2000
Home care product	Ragi malt	51	10110	51
Total		3703	650310	2751

9.D. Production of livestock: Nil

Particulars of Livestock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows				
Buffaloes				
Calves				

Others (Pl. specify)				
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total				

PART X – PUBLICATIONS, SUCCESS STORY, INNOVATIVE METHODOLOGY, ITK, TECHNOLOGY WEEK

10. A. Literature Developed/Published (with full title, author & reference)

(A) KVK Newsletter: ARAMBHA

Date of start: January 2008, Periodicity: Quarterly, Copies printed in each issue: e-Newsletter

(B) Literature developed/published

Item	Number
Research papers- International	1
Research papers- National	1
Technical reports	-
Technical bulletins	1
Popular articles - English	-
Popular articles – Local language	2
Extension literature: Folder	5
Others: Abstracts	2
TOTAL	12

10.B. Details of Electronic Media Produced

S. No.	Type of media	Title	Details
	CD / DVD	-	-
	Mobile Apps	-	-
	Social media groups with KVK as Admin	KVK Mandya, DAMU Mandya	48 Whatsapp group created around 9600 farmers Sharing of information relating to Agriculture, weather forecasting and allied aspects
	Facebook account name	KVK Mandya	217 friends including KVKs, Officials of ATARI, Official of University and Agriculture Departments and farmers Posting of important events photos, information and also sharing important information related to Agriculture
	Instagram account name	-	-

10.C. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).

Integrated Farming System for Sustainable livelihood

Sri Suresh from Karekura village, Srirangapatna taluk having 9th passed and aged 34 years is a very enthusiastic farmer having 1.5 acres of land in which he is growing Banana, Coconut, vegetables and Mango also doing fishery, poultry, dairy and apiculture in his farm. He has having a pond of 0.25 acre area and doing fishery in which he is rearing 2000 nos. Catla, Rohu and Common carp species. His income from fish selling is about Rs. 75,000 @ Rs.100 per Kg of fish. The pond is covered using mesh of size 50ft length and 15ft width on which he is rearing local poultry birds (300 Nos.). The waste of these birds is a source of food to the fish. After rearing the birds for 4 to 5 months he sells them @ Rs. 250 per Kg. and eggs @ Rs.10 per egg. He is earning Rs. 90,000 from these birds annually. In remaining 1.25 acre of area he is growing wide range of horticulture crops. He is having 200 banana plants from which he has made Rs. 50,000 profit. In addition to banana he is having Coconut (50 Nos.), Mango (17 nos.), Sapota (35 Nos.), Jack (6 Nos.), rose apple, guava, orange, Moosambi, Custard apple, Jamoon, citrus species (nimbu, chakotha,) etc. By selling tender coconut and coconuts he is earning around Rs. one lakh and from mango he is getting Rs. 30,000 per annum. On the bunds he is having Silver oak (30 Nos.), Teak (60 Nos.), Drum stick (20 Nos.), Arecanut (150 Nos.), Black pepper (100 Nos.), Beetle vine (5 Nos.) and Amla (6 Nos.) all these were planted 6 years back. With the best use of space on the bunds he has earned Rs. 60,000 from these crops. From past three years he is giving importance for organic farming. He is using FYM, vermicompost and poultry manure for the crops. The farm waste is used as mulch and also pulses are grown in between as live mulch which also improves soil fertility. The Cowshed waste and crop residue is being used to produce quality compost and vermicompost. He is also having Jeevamruta unit and prepares Jeevamrutha (for one acre) using 10 kgs cow dung, 10 liters cow urine, 2 kgs black jaggery, 2kgs pulse flour (any pulse) and 0.5 kg soil mixing with 200 liters of water and this is given to the crops through irrigation water. Azolla unit is also maintained and used as feed for the fish and poultry birds. As part of water management he is having farm pond for water harvesting, Drip and sprinkler irrigation is adopted to all these crops. The water from fish pond is irrigated to the crops. He also owns four Apiculture unit which helps in pollination. Mr. Suresh also rearing Pigeons and love birds and earns Rs. 10,000 by selling these birds. From all these crops and enterprises he is getting a net profit of Rs. 4,15,000 per annum.

During 2014-15 he is awarded with District level best farmer award and Taluk level best Farm youth award during 2015 by UAS, Bangalore. He has given Radio talk, TV programmes and served as resource person on Fish Farming. On an average around 2000 farmers from Mysore, Hassan, Bangalore, Chamarajanagar districts and other taluk of Mandya district are visiting the farm every year. He is a role model to the rural youths who are migrating to towns and cities in search of job.

Drum seeding in Hybrid Paddy: Technology for higher yield and income

Paddy is an important food crop in Mandya district of Cauvery command area cultivated mainly by small and marginal holding farmers. The paddy is cultivated in an area of 58,487 hectares in the district having total production of 1,73,548 tons with an average productivity of 3635 kg per hectare. Use of available varieties, mono cropping, faulty cultivation practices and submerged condition are leading to low yield and deterioration of soil quality. Non availability of skilled and efficient labours at critical stages of farm operations like transplanting, weeding etc., and delayed planting, reduced plant population and inefficient weed control is also affecting the crop yield. The change in the climatic conditions in addition to the above factors is making paddy cultivation less remunerative and cumbersome in turn making the farmers to think agriculture as a non profitable enterprise and migrating to cities in search of better livelihood.

Hybrid paddy with higher yield potential and machineries for small holding is the need of the hour which can solve the crisis of the paddy farmers. With this background the intervention planned by KVK, Mandya was to introduce basket of technologies like Drum Seeding, hybrid along with cono weeder (manually as well as power operated weeder) and recommended package of practices. Drum seeder is the simple tool most suitable for farmers with small landholding which is cost effective, durable, easy for transportation. It is a manually operated tool which drops 5-6 pre germinated seeds at 4'' spacing in 9'' rows. Unlike mechanical transplanter, drum seeder does not require skilled person and suitable for small plots and undulated lands. Further, it does not require rising nursery which is skill based and critical for efficiency transplanting machine transplanting. The other advantages of drum seeding is that drudgery, cost of raising seedling in field and transplanting is completely avoided, saving in water (for raising nursery and 10 crop days in main field because of the early maturity) and saving 50 percent of recommended seed material (67.5 kg / ha). However care should be taken to level the land as much as possible and open small drains in field to drain standing water up to 10 days to facilitate germination. Other cultivation aspects remain same as of normal practice. The hybrid paddy with medium crop duration (130-135 days) and high yield (85 q/ha) was another intervention for better yield and income.

Initially, both the technologies were not compatible as the drum seeder need 40-50 kg paddy to cover an hectare area where as the recommended seed rate for hybrid paddy is 20 kg per hectare. To make these two interventions compatible On farm testing (OFT) was planned and conducted for three years from 2009-10 to 2011-12 in the farmers field of Sampalli, Kattedoddi, Hemmanahally and KVK farm. Later the technology was demonstrated in larger area as Frontline demonstration (FLD) for three years from 2012-13 to 2014-15 in Chandagalu, Kurikoppalu, Kannahatti and Mallanayakana katte villages of Mandya taluk, Devarahalli of Maddur taluk with 21 farmers in 11 hectare area. Other Extension activities for effective implementation and spread of the technology were also conducted (Table-1).

Table 1: Extension activities implemented by KVK, Mandya on Drum Seeding of Hybrid paddy

Sl. No.	Activity	Number	Number of farmers
1.	On farm testing	13	13
2.	Front line demonstration	21	21
3.	Training On campus	13	421
	Extension functionaries	2	68
	Off campus	28	454
4.	Group discussion / meetings	14	178
5.	Field visits	29	452
6.	Field day	7	642
7.	Method demonstration	22	1881
8.	Farmer-Scientist interaction	2	135
9.	Exhibitions	19	-
10.	News paper coverage	10	-
11.	Folder/ poster/ manual	5	-
12.	CD-Short film	1	-
13.	Radio programme	1	-
14.	TV programme	2	-

The farmers were facilitated with critical inputs like drum seeder, cono weeder and hybrid paddy seeds to make the farmer feel the technology as easily available and adoptable in field condition to address the issue of labour shortage and realise higher yield. Large scale demonstrations on drum seeding were conducted in 115 hectares in association with RKVY- Water Technology Centre and in 8 hectares in collaboration with Karnataka State Department of Agriculture.

Out put

The results of the three years OFT revealed that drum seeding of hybrid paddy technique resulted in increased crop yield, save labour and enhance the profit from paddy cultivation (Table-2). The district average productivity of paddy with existing varieties is 36.35 q / ha and with the introduction of hybrid paddy (KRH-2) it increased to 61.05 q / ha with recommended planting method (i.e. raising nursery and transplanting single seedling per hill), further with drum seeding the yield realised was higher by 13.5 percent (69.29 /ha) during On farm testing (2009-10 to 2011-12). The technology has been accepted and included in the package of practice in field crops of UAS (B). The improved paddy hybrid KRH -4 was introduced during FLD further enhanced the yield to 75.6 q/ha. The results of demonstration indicated that drum seeding of hybrid paddy yielded 10.12 per cent higher yield compared to hand transplanting. There was 107 per cent increased yield with drum seeded hybrid paddy compared district average yield with varieties and manual planting from 36.35 q/ha to 75.6 /ha (Table-3).

With drum seeding technique there was considerable decrease in labour requirement i.e 37.5 man days per hectare (Table-4) which reduced the dependency on labours considerably. The pest and disease incidence found was lesser in drum seeded crop. The reason could be micro climate in the crop canopy was not much favourable for multiplication and sustenance of insect and pathogens as there is free movement of air due to line planting compared to random planting widely practiced.

Table 2: Performance of drum seeding of Hybrid paddy in comparison to recommended practice (Hand transplanting) under OFT.

Year	No. of trials	Recommended practice (Hand transplanting)					Alternate practice (Drum seeding)				
		Yield (q/ha)	Gross cost (Rs.)	Gross return (Rs.)	Net Return (Rs.)	BC Ratio	Yield (q/ha)	Gross cost (Rs.)	Gross return (Rs.)	Net Return (Rs.)	BC Ratio
2009-10	3	52.36	23150	57596	34446	2.49	58.89	22100	64779	42679	2.93
2010-11	5	62.00	22693	62000	39307	1.73	70	20053	70000	49947	2.49
2011-12	5	64.93	27314	71423	44109	2.61	74.14	21464	81554	60090	3.79
Average		61.055	25117.8	65610.5	40492.8	2.36	69.29	21270.3	74471.75	53201.5	3.25

Table 3: Yield and economics of demonstration on drum seeding in comparison to hand transplanting of Hybrid paddy.

Year	Yield (q/ha)			*Economics (Rs./ha)							
				Demonstration (Drum seeding)				Check (Hand transplanting)			
	Demo	Check	% Increase	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
2012-13	67.2	62.26	7.93	24953.0	96220.0	71267.0	3.85	31453.0	89051.0	57598.0	2.83
2013-14	76.25	67	13.81	29004.5	108575.0	79570.5	3.74	36159.5	95060.0	58900.5	2.63
2014-15	83.3	76.7	8.63	32003.0	131480.0	99477.0	3.10	37050.0	120757.5	83687.5	2.25
Average	75.6	68.7	10.12	28653.5	112091.7	83438.2	3.56	34887.5	101622.8	66728.7	2.57

Table 4: Ancillary parameter as influenced by drum seeding of hybrid paddy.

Treatments	Plant population (No./sq.m)	No. of tillers/ plant	Grains / panicle (No.)	Labour saving (No./ ha)
Demo (Drum seeding)	41.67	21.67	330.67	37.5
Check (Hand transplanting)	34.67	17.67	292.33	0

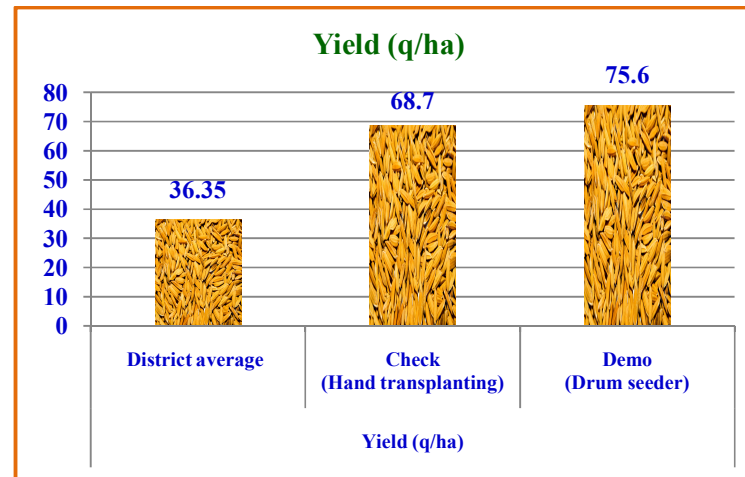


Fig 1: Comparison of paddy Yield in drum seeding

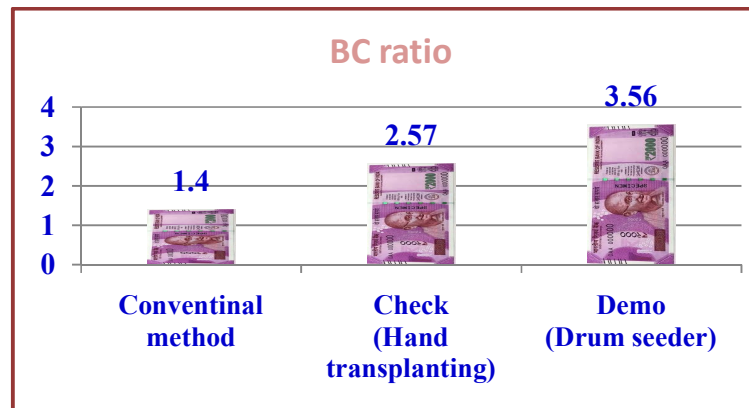


Fig 2: Economics of drum seeding

The economic analysis of paddy cultivation shows that average returns per rupee invested under regular paddy variety and transplanting method is one rupee forty paise (B:C ratio 1.4). The results of the FLD (2012-13 to 2014-15) with drum seeded KRH-4 hybrid paddy showed the average returns per rupee invested was higher i.e. three rupees fifty one paise (B:C ratio 3.51). The increase in returns per rupee invested is rupees 2.11 (Table-3). This could be attributed to lower cost of production i.e. for crop establishment (no investment on nursery raising and transplanting), reduced labour force for weeding, reduce cost on fertilizers (balanced nutrition) and plant protection activities (lesser incidence of pest and diseases) coupled with higher returns due to increase in the crop yield.

The drum seeding of hybrid paddy technology demonstrated indicate that there could be possibility of increasing grain yield to the tune of 39.25 q per hectare compared to present district average yield with existing production practices.

The results of knowledge test indicated 79 per cent increase in the knowledge level of farmers on the drum seeding practices (Table-5). In case of skill on drum seeding of paddy, land preparation, soaking and incubation of seeds for germination, water and weed management in the initial stages are the important skills and it was found that there was 90 per cent gain in the skill of the farmers (Table-6).

Table 5 : Increase in knowledge level of farmers on Drum seeding Technology

N=30

Sl. No.	Average knowledge score		Knowledge gain	Percent gain
	Before	After		
1.	2	9.9	7.9	79.0

Table 6: Gain in skill on Drum seeding Technology by the farmers

N=30

Sl. No.	Average score skill acquisition		Gain in skill acquisition	Percent gain
	Before	After		
1.	0	9.0	9.0	90

Out come

The technology demonstrated in 21 farmers with 11 hectare area for three years by KVK. Later the technology spread to neighbouring farmers and the whole village Chandagalu/ Kurikoppalu villages were known as "Drum Seeder villages". Surrounding villages like Holalu, M.N.Katte, Hadya, Sampalli, Goravale of Mandya taluk embraced the technology. Further the technology spread to Maddur, Malavalli S.R.Patna & Pandavpura talukas of the district. Many farmers from Mysore, Hassan, Davanagere and North Karnataka who visited Mandya during Krishi Mela have express willingness to adopt drum seeding. The technology is being adopted in an area of 3360 ha by nearly 8125 farmer over three years. On an average additional yield realised by a farmer is 39.25q/ha. It sums up to an extra monetary benefit of Rs. 54,950 per hectare to his annual income with the saving in seeds up to 1,12,560kgs and water saving upto 15 per cent.

In conventional method raising of nursery, removing of seedling from nursery, transportation and distribution of seedlings in the main field and transplanting are the common practices which are strainfull and labour intensive activities. But in drum seeding method as the seeds are sown directly, all these activities are avoided so also the drudgery.

Impact

Large number of farmers are adopting the technology in the district. The trend analysis of area, production and productivity showed that even though the area under paddy is decreased by 22153 ha and production by 111999 tons, the productivity has improved by 271 kg per hectare. One of the reason for productivity increase could be use of hybrid paddy and drum seeding. There was a steep increase in demand for drum seeder. KVK in association with Water technology Center, V.C.Farm, Mandya was sparing the service of the drum seeder to the farmer at no cost to the farmer. Later each farmers co-operative societies were having 1-2 drum seeder at their disposal. Many farmers owned drum seeder as it was available with 50 per cent subsidy through Agriculture Department and also it was available at custom hiring centres. Indian Farmers Fertilizer Cooperative, Mandya provided drum seeder to selected farmers societies and a Commodity Based Association on Paddy (Sri Harihareshwara Bhatta Belegarara Sangha) in Maddur is also providing drum seeder on hire basis and guidance to the farmers on drum seeding. Now a days the improved drum seeder is available locally. On an average there are about 650 drum seeders available in the district. It is evident from the

data that there is acceptance for the hybrid paddy (KRH-4). Positive change can be observed in varietal replacement if sufficient and timely availability of hybrid seed (public & private) is ensured. The additional yield realised by this technology was 1.32 lakh quintal and the additional income was 18.48 crore rupees towards district agricultural economy.

Table 7: Trends in Area, Production and Productivity of paddy in Mandya district.

Year	Area (ha.)	Production (t)	Productivity (kg/ha)
2010-11	80640	285547	3364
2015-16	58487	173548	3635

Source: Mandya at a glance, Dept of statistics

Table 8: Taluk wise No. of drum seeder adopted, Societies involved and farmers benefitted

Sl. No.	Taluk	Area covered (ha.)	No. of societies/KVK involved	No. of farmers benefitted
1.	Mandya	2050	5 (VBSSN)	4670
2.	Maddur	715	1(CBO)	1985
3.	Srirangapatna	280	KVK	638
4.	K.R.Pet	210	4 (VBSSN)	552
5.	Malavalli	85	KVK	217
6.	Pandavapura	10	KVK	35
7.	Nagamangala	10	KVK	28

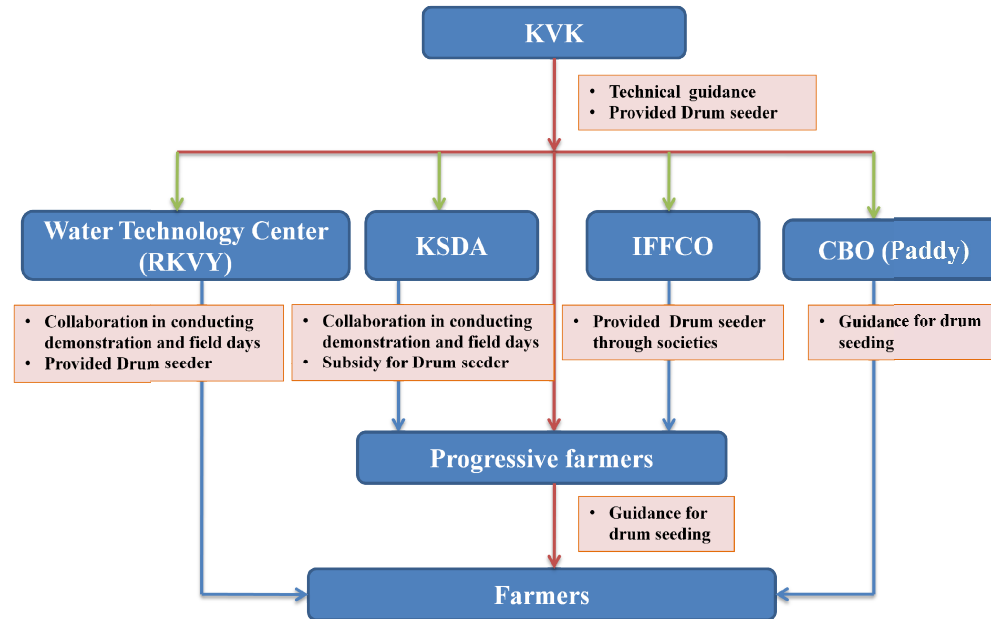


Fig 4: Linkage with stakeholders and support extended by them

Mr. Puttaswamy from Kurikoppalu village of Mandya taluk is practicing the drum seeder technology for the past 6 years. He feel proud to purchase a bike and put his children to convent school with the income got by adopting the technology. He is also popularly referred as “Drum seeder guru”. Mr. Andani gowda, farmer from Chandagalu opines that drum seeder technology should be adopted by all paddy farmers as it reduce drudgery and cost of production and increases the profit. He upgraded his house from tile roof to RCC home. The additional family income generated was effectively used for purchase of farm machineries and input without depending on borrowed money. Mr. Puttaswamy of Mathad doddi village feels that this technology not only gives higher returns but also it is eco-friendly. The practice of passing cono weeder effectively control the weed, without use of weedicide and also improve soil health as the weed biomass got incorporated in to the soil. Likewise many farmers have been benefitted by this technology promoted by KVK Mandya.

Problems in adoption Drum Seeding of Hybrid Paddy

As the farmers are acquainted to see the 1ft high crop immediately after transplanting, the slow growth of the crop in drum seeding dishearten the farmers whether the crop come up or not. But here the seeds are directly sown hence the initial growth is slow. After passing the conoweeder and application of fertilizers at 20 days after sowing good growth can be observed. Secondly the timely availability of drum seeder is also a reason for slow spread of the technology. Seed availability of hybrid paddy in required quantity is not there.

If these things are taken care Drum Seeding in Hybrid Paddy can be a boon to farmers in enhancing the yield and economics of distressed paddy farmers.

10.D. Give details of Innovative Methodology or Innovative Approach of Transfer of Technology developed and used during the year

- Involving progressive farmers (alumni of KVK activities) as resource persons
- Participatory Trainings
- e-SMS
- Farmers-Scientist-Extension interface programme
- Campaign
- Group exercise for the farmers
- Organized Doubling farmers income strategies programme, special days

10.E. Give details of Indigenous Technical Knowledge 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	Scientific Rationale
1.	Banana	Incorporation of neem, Pongamia, Cactus, ekka etc. before planting	To reduce rhizome weevil and fusarium wilt of Banana	Low yield and low quality fruit
2.	Paddy	Growing of cowpea all along the bund of paddy	For fodder and vegetable purpose and also strengthening of bunds	Inhibition of weeds and use of dry matter as fodder and grain purpose for family
3.	Sugarcane	Growing of Vegetables as in intercropping in Sugarcane	For vegetable purpose	Soil health management and additional income through vegetables
4.	Paddy	Use of Ekka (<i>Aak</i>) plant in paddy field	Green manure & pest and disease management	Soil health management and reduce pest & disease management

10 F. Technology Week celebration during 2020: **No**

Period of observing Technology Week: From _____ to _____
 Total number of farmers visited : _____
 Total number of agencies involved : _____
 Number of demonstrations visited by the farmers within KVK campus : _____

Other Details

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

10 E. Recognition and Awards: Please give details about National and State level recognition and awards

Sl. No.	Event	International / National / State level recognition	Particulars	Scientists
-	-	-	-	-

PART XI – SOIL AND WATER TEST

11.1 Soil and Water Testing Laboratory

A. Status of establishment of Lab : Good but lacks facility for analysis of plant samples

1. Year of establishment : 15th December 2005
2. List of equipments purchased with amount : Listed below

Sl. No	Name of the Equipment	Qty.	Cost	Status
1	Digital conductivity meter	1 No.	7400	Good condition
2	Digital pH meter	1 No.	8550	Good condition
3	Physical balance	1 No.	12000	Good condition
4	Hot air oven	1 No.	20000	Good condition
5	Magnetic stirrer	1 No.	5500	Good condition
6	Top loading balance	1 No.	48900	Good condition
7	Rotary shaker	1 No.	27600	Good condition
8	Double glass distillation unit	1 No.	48850	Good condition
9	Macro block digestion system	1 No.	52118	Good condition
10	Automatic distillation system	1 No.	85232	Good condition
11	Acid neutralizer scrubber	1 No.	23909	Good condition
12	Spectrophotometer	1 No.	42000	Good condition
13	Flame photometer	1 No.	35200	Good condition
14	Micro oven	1 No.	14980	Good condition
15	Micro scope	1 No.	66555	Good condition
16	Refrigerator	1 No.	30750	Good condition
17	Digital micro pipettes-one set	One set	21180	Good condition
18	pH meter	1 No.	6600	Good condition
19	Laminar Air flow	1 No.	44900	Good condition
20	Auto clave	1 No.	28687	Good condition
21	Eliza reader	1 No.	147155	Good condition
22	Mridiparikshak soil testing kit	1 No.	86000	Good condition
23	Atomic absorption spectrophotometer	1 No.	2184732	Good condition
24	Double distillation unit	1 No.	98,000=00	Good Condition
25	End to end reciprocatory shaker	1 No.	70,00,000=00	Good Condition

B. Details of samples analyzed since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	5047	3994	1245
Water Samples	1168	962	668
Plant samples	91	52	15
Manure samples	75	33	21
Others (specify)	-	-	-
Total	6381	5041	1949

C. Details of samples analyzed during the 2020-21:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	469	450	411
Water Samples	209	182	175
Plant samples	-	-	-
Manure samples	-	-	-
Others (specify)	-	-	-
Total	678	632	586

11.2 Mobile Soil Testing Kit**A. Date of purchase and current status**

Mobile Kits	Date of purchase	Current status
1. Pusa Digital STFR Meter Kit (Model-WST- 201 P-GPS)	December 2015	Good condition
2. Mridi Parikshak	March 2017	Good condition

B. Details of soil samples analyzed during 2020 and since establishment with Mobile Soil Testing Kit:

	Progress during 2019	Cumulative progress
Samples analyzed (No.)	*	100
Farmers benefited (No.)	-	-
Villages covered (No.)	-	-

* Used for Electrical conductivity and pH recording

11.3 Details of soil health cards issued based on SWTL & Mobile Soil Testing Kit during 2020:

Particulars	Date (s)	Villages (No.)	Farmers (No.)	Samples analyzed (No.)	Soil health cards issued (No.)
SWTL	April 2020 to Feb 2021	411	450	469	469
Mobile Soil Testing Kit	-	-	-	-	-

11.4 World Soil Health Day celebration

Sl. No.	Farmers participated (No.)	Soil health cards issued (No.)	VIPs (MP/ Minister/ MLA attended (No.))	Other Public Representatives participated	Officials participated (No.)	Media coverage (No.)
1.	48	48	-	2	4	1

PART XII. IMPACT**12.A. Impact of KVK activities (Not restricted for reporting period).**

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Micro nutrient management in mulberry	8	75	9100	12690
Coconut tree climbing	140	30	-	15,000 - 20,000 / per month
Micro nutrient - Banana special	200	60	185000 / ha	210000 / ha

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

12.B. Cases of large scale adoption (Please furnish detailed information for each case with suitable photographs)**12.C. Details of impact analysis of KVK activities carried out during the reporting period**

Problem statement / situation analysis:	Gaps Identified			Technology Demonstrated	OFT/FLD/ Capacity building programmes	Area covered		Output Yield/Income
	Yield	Extension	Technology			Before	After	
Low yield and low income in paddy cultivation	25-30 q/ha	Lack of awareness	Lack of awareness about hybrids	Popularization of hybrid paddy KRH-4	FLD, Capacity building programme	4 ha	1000 ha	Grain Yield –75 to 80 q / ha Net returns - 50-60 % more than conventional variety
High cost of cultivation in paddy	10-15 q/ ha	Lack of awareness	Lack of popularization about technology	Drum seeding method of sowing paddy	FLD & capacity building programme	4 ha	3360 ha	Yield – 65 to 70 q/ha Net return – 25-30 % More than conventional method
Improper Trash Management (Trash burning), ratoon management, low yields and low income in sugarcane	15-20 t/ha	Trash burning & improper ratoon management	Lack of awareness about Trash management	Trash mulching: Mulching of Sugarcane trash in alternate rows, broadcasting 75 Kg/ha urea on trash with application of 500 Kg of FYM enriched with 25 Kg trichoderma Ratoon management:	FLD & capacity building programme	10 -20 ac (Progressive farmers)	19500 ha.	Yield – 100 to 115 ton / ha. Net return – 20 to 25% compared to trash burning and improper ratoon management

				Stubble shaving, shoulder breaking, gap filling and nutrient management practices				
Blast & stem borer problem in paddy	5 q / acre	Lack of awareness	Lack of knowledge about pest management	<ul style="list-style-type: none"> • Seed treatment, neem cake application • Release of Trichograma • Foliar spray of Pseudomonas • Use of Pheromone traps 	FLD & capacity building programme	100 acre	1000 acre	Yield – 24 to 26 q/ac Net return – 10 to 15% More than regular farmers practice

PART XIII - LINKAGES

13A. Functional linkage with different organizations

Name of organization	Nature of linkage
Department of Agriculture, Mandya	Implemented a project entitled “Evaluation of pre and post emergence herbicides sequence for direct seeded rice (DSR) in Cauvery command area” funded by Department of Agriculture, Mandya
	Joint Diagnostic visit for management of Fall army worm in Maize in Mandya District
Department of Horticulture	Technical support to FPOs through KVK under CHD programme (Demonstrations, Training programmes, Field visits and Interstate tours)
Department of Animal Husbandry & Veterinary Sciences	NADC, FMD & Brucellosis and artificial Insemination inauguration programme and vaccination to milking animals

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

13B. 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.)
<i>Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India</i>	April 2018	IIPR, Khanpur	1,50,00,000
Project entitled “Evaluation of pre and post emergence herbicides sequence for direct seeded rice (DSR) in Cauvery command area”	January 2019	KSDA, GOK	5,00,000
Technical support to FPOs through KVK	June 2018	CHD, SADH	3,09,750

13C. Details of linkage with ATMA

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	Meetings attended			
02	Research projects	Project entitled "Studies on yield maximization of Blackgram (Vigna mungo L.) through foliar nutrition in paddy fallow of Cauvery command area "	1	-	On going
03	Training programmes	Trainings to visited farmers under ATMA	-	-	-
04	Demonstrations	-	-	-	-
05	Extension Programmes				
	Kisan Mela	-	-	-	-
	Technology Week	-	-	-	-
	Exposure visit	-	-	-	-
	Exhibition	Krishimela	1	-	-
	Soil health camps	-	-	-	-
	Animal Health Campaigns	-	-	-	-
	Others (Pl. specify)	-	-	-	-
06	Publications				
	Video Films	-	-	-	-
	Booklet	Improved cultivation practices in pulses and NFSM to increase productivity	-	-	Released by Hon'ble Agriculture minister
	Extension Literature	-	-	-	-
	Pamphlets	-	-	-	-
	Others (Pl. specify)	-	-	-	-
07	Other Activities (Pl. specify)				
	Watershed approach	-	-	-	-
	Integrated Farm Development	-	-	-	-
	Agri-preneurs development	-	-	-	-

13D. Give details of programmes implemented under National Horticultural Mission: Nil

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any

13E. Nature of linkage with National Fisheries Development Board : Nil

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks

13F. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1.	Mushroom Grower	Training programme under ASCI	1,80,000	-	Yet to be started
2.	Organic Grower		1,80,000	-	Yet to be started

13 G. Kisan Mobile Advisory Services

Month	Message type (Text/Voice)	SMS/ voice calls sent (No.)						Total SMS/Voice calls sent (No.)	Farmers benefitted (No.)
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprises		
January	Text	6	-	-	-	-	-	6	47355
February	Text	4	-	-	-	-	-	4	
March	Text	2	-	-	-	-	-	2	
April	Text	0	-	-	-	-	-	2	
May	Text	0	-	-	-	-	-	-	
June	Text	2	-	1	-	1	-	5	
July	Text	1	-	1	1	1	-	4	
August	Text	0	1	1	1	-	-	10	
September	Text	5	-	1	-	-	-	4	
October	Text	6	-	1	-	-	-	5	
November	Text	5	-	1	-	-	-	6	
December	Text	5	-	1	-	-	-	3	
Total		36	1	7	2	2	-	48	47355

PART XIV- PERFORMANCE OF INFRASTRUCTURE IN Krishi Vigyan Kendra, V.C.Farm, Mandya

14A. Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1.	Low cost Silkworm rearing house	2013	800 Sqm	Double hyb. FC1 x FC 2	Cocoons	101.87 Kg	30000	44003	-
2.	Crop cafeteria	2019	0.04	-	Vegetables	255 Kg	1900	5290	-
3.	Coconut Seedlings	2018	-	Tiptur tall	Seedlings	1732 No.	20000	129900	-
4.	Coconuts	-	-	Tiptur tall	Coconuts	3565	10000	65467	-

14B. Performance of instructional farm (Crops) including seed production

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Paddy	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-
Oilseeds	-	-	-	-	-	-	-	-	-
Fibers	-	-	-	-	-	-	-	-	-
Spices & Plantation crops									
Coconut Seedlings	2020	2021	-	Tiptur tall	Seedlings	1732	-	129900	-
Floriculture									-
Fruits									
Papaya	2020	2021	-	Redlady	Saplings	152	-	3041	-
Vegetables									
Drumstick									-
Drumstick	2020	2021	-	PKM-1	Seedlings	3919	-	58785	-
Curry leaf	2020	2021	-	Suhasini	Seedlings	79	-	1580	-
Others (specify)									
Mulberry	2020	2021	-	V-1	Saplings	2300	-	6900	-

14C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.): Nil

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	

PART XV – SPECIAL PROGRAMMES

15.1 Paramparagath Krishi Vikas Yojana (PKVY) : Nil

Sl No.	Name of cluster village	Initial soil fertility status (Average of cluster village)				Facilities created for organic source of manure	Name of Crops cultivated	Variety	Organic inputs applied including bio-agents and botanicals treatment	Yield (q/ha)	Economics	
		Aval. N	Aval. P	Aval. K	OC %						Cost of cultivation (Rs/ha)	Net returns (Rs/ha)
1	-	-	-	-	-	-	-	-	-	-	-	

15.2 District Agriculture Meteorological Unit (DAMU)

Sl No.	Agro advisories			Farmers awareness programmes	
	No of Agro advisories generated	No of farmers registered for agro advisories	No of farmers benefitted	No of programmes	No of farmers benefitted
1	103	47300 (mKisan)	47300	23	781
2		9600 (Whats app)	9600		

15.3 Fertilizer awareness programme 2020

State	Name of KVK	Details of Activities/ programme Organised	Number of Chief Guests	No. of Farmers attended program	Total participants
-	-	-	-	-	-

15.4 Seed Hub

Crops	Variety	Year of release	Class of seed	Seed production (q)	Seeds sold (q)	Ava. Seeds (q)
Greengram	KKM-3	2019	CS	11	4.82	6.18
			TL	2.25	2.25	-
Blackgram	LBG-791	2019	TL	86.90	38.25	48.65
Cowpea	KBC-9	2019	TL	13.8	11.65	2.15
Redgram	BRG-3	2019	TL	17.3	-	17.3
Horsegram	PHG-9	-	TL	3.3	-	3.3

PART XVI - FINANCIAL PERFORMANCE**16A. Details of KVK Bank accounts**

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India	V.C.Farm	40164	Saving	54046591066	000006000	SBIN0040164
With KVK	State Bank of India	V.C.Farm	40164	Saving	54046591066	000006000	SBIN0040164
	State Bank of India	V.C.Farm	40164	Saving	64004043829	000006000	SBIN0040164

16B. Utilization of KVK funds till February -2021 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	105.5	-	90.85
2	Traveling allowances	1.50	-	1.72
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	2.10	-	1.85
B	POL, repair of vehicles, tractor and equipments	2.25	-	2.24
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	0.85	-	0.85
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.30	-	0.29
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	3.27	-	3.07
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.40	-	0.22
G	Training of extension functionaries	0.25	-	0.25
H	Extension Activities	0.25	-	0.23
I	Maintenance of buildings	0.50	-	0.45
J	Establishment of Soil, Plant & Water Testing Laboratory	0.30	-	0.30
K	Nutri gardens	0.25	-	0.23
L	Conference on Extension / Farmers Science Congress	-	-	-
L	Library	0.10	-	0.03
J	EDP	0.14	-	0.13
TOTAL (A)		117.96	-	102.71
B. Non-Recurring Contingencies				
1	Works	-	-	-
2	Equipment including SWTL & Furniture	-	-	-
3	Vehicle (Four wheeler/Two wheeler, please specify)	-	-	-
4	Library (Purchase of assets like books & journals)	-	-	-
TOTAL (B)		-	-	-
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		117.96	-	102.71

16C. Status of revolving fund (Rs. in lakh) for the last three years

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2018 to March 2019	3.91	28.99	20.83	8.16
April 2019 to March 2020	8.16	10.14	12.23	6.06
April 2020 to January 2021	6.06	18.05	13.10	11.02

17. Details of HRD activities attended by KVK staff

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. Atheefa Munawery	Scientist (Soil Science)	National Webinar on Higher education and Research in National Resource Management for environmental sustainability	CAAST CSAWM, MANAGE	14.08.2020
		National webinar on Scope of Horticulture in Hilly zone of Karnataka	College of Horticulture, UAHS, Bagalkote	17.08.2020
Dr. Atheefa Munawery	Scientist (Soil Science)	Training for trainers Digitally empowered self employed, extension force (DESEE Force): Training Rural Youth for providing crop Health Services	Jointly organized by Directorate of extension and Tene agricultural solution Pvt Ltd Bangalore	22.09.2020 to 23.09.2020
Dr. Roopashree, D. H	Scientist (Agronomy)			
Dr. Pavithra, S	Scientist (Plant protection)			
Dr. Atheefa Munawery	Scientist (Soil Science)	National conference of Society of Krishi Vigyan on Advances in sustainable agriculture	Society of Krishi Vigyan	26.09.2020 to 28.09.2020
Mrs. Arpitha, S. N.	SMS (Agromet)			
Dr. Atheefa Munawery	Scientist (Soil Science)	Technology interventions towards transformation of agriculture and allied sector	Jointly organized by Agro environmental development society (AEDS), CSRTI, Pondichery institute of agricultural science	11.10.2020 to 31.10.2020
Dr. Pavithra, S	Scientist (Plant protection)			
Dr. Atheefa Munawery	Scientist (Soil Science)	National training on Internet of things (IoT) for the faculty	Engineering staff college of India	14.01.2021 to 18.01.2021
Dr. Pavithra, S	Scientist (Plant protection)			
Dr. Prakash B.K	Scientist (Sericulture)	Impact of COVID-19 on silk production	DOS in Sericulture Science, University of Mysore, Mysore	13.08.2020
		Transgenic Silkworm (<i>Bombyx mori</i>) – An Epoch Making Technology	DOS in Sericulture Science, University of Mysore, Mysore	25.08.2020
		Mechanization in Sericulture	DOS in Sericulture Science, University of Mysore, Mysore	02.09.2020
		Wild silk moth diversity and its ex-situ and in-situ conservation in India	DOS in Sericulture Science, University of Mysore, Mysore	10.09.2020

		Integrated disease management in silkworm	DOS in Sericulture Science, University of Mysore, Mysore	18.09.2020
		Automated recognition of silkworm races and breeds through computational and gene based coding	DOS in Sericulture Science, University of Mysore, Mysore	23.09.2020
		Application of Geo-informatics in sericulture development	DOS in Sericulture Science, University of Mysore, Mysore	28.10.2020
		Development of disease resistant silkworms	DOS in Sericulture Science, University of Mysore, Mysore	02.11.2020
Dr. Roopashree, D. H	Scientist (Agronomy)	International training programme on Climate risk assessment and its management through agro meteorological approaches	DARS-Rangreth, SKUAST-K	21.10.2020 to 30.10.2020
Mrs.Saritha N	Programme Assistant (Computer)	Online summer training programme on Full Stack Web Development	Indian Institute of Technology Roorkee	01.10.2020 to 14.10.2020

18. Please include any other important and relevant information which has not been reflected above (write in detail).

Related photos:



Bunch feeding in Banana



Diagnostic visit



Diagnostic visit-1



Extn.fun. (Precision farming in hort.crops)



Farmers day



Field day on 'Maize hybrid MAH-14-5'



Field day on 'Tomato hybrid Arka Abhed'



Field inspection under seed hub



Inspection of Desi var. under PKVY



Off campus training



On campus trg on IPDM in paddy



Swachatha Pakshika

