

# **KRISHI VIGYAN KENDRA TUMAKURU-1**

## **ANNUAL REPORT- 2021**

**(FOR THE PERIOD FROM 01 January, 2021 TO 31 December, 2021 )**

**UNIVERSITY OF AGRICULTURAL SCIENCES, BANGALORE**

**ICAR-KRISHI VIGYAN KENDRA, TUMAKURU**

**website:** [www.kvktumkur.org](http://www.kvktumkur.org) , **E-mail:** [kvktumkur@gmail.com](mailto:kvktumkur@gmail.com), kvk.Tumakuru1@icar.gov.in , **Tel:** 9449866936

**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		
KVK, Konehalli, Tiptur, Tumakuru	08134-298955	--	<a href="mailto:kvktumkur@gmail.com">kvktumkur@gmail.com</a> , kvk.Tumakuru1@icar.gov.in	www.kvktumkur.org

**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, GVK Bangalore	080-23332442 09449866900	080-23332442	vc@uasbangalore.edu.in	www.uasbangalore.edu.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. Govinda Gowda V.	--	9449866936	kvktumkur@gmail.com, vgovindagowda@gmail.com

**1.4. Year of sanction: 2004**

**1.5. Staff position as on 31 December 2021**

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. Govinda Gowda V.	Senior Scientist & Head	M	Agril. Extn.	M.Sc (Agri.), Ph.D.	144200 - 218200	182700	16.12.2021	Permanent	OBC
2	Scientist/SMS	Dr. K.R. Shreenivasa	Scientist	M	Plant Protection	M.Sc (Agri.), Ph.D.	79800-211500	98200	17-07-2009	Permanent	OBC
3	Scientist/SMS	Dr. Nagappa Desai	Scientist	M	Horticulture	M.Sc. (Agri.) in Horticulture,	68900-205500	83300	17-07-2009	Permanent	Others

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)
						Ph.D.					
4	Scientist/SMS	Dr. H.B. Shivappa Nayaka	Scientist	M	Animal Science	M.V.Sc. (Poultry Science)	57,700-1,82,400	68800	24-10-2013	Permanent	ST
5	Scientist/SMS	Dr. Roopa B Patil	Scientist	F	Home Science	M.Sc (Food Science & Nutrition), Ph.D.	57,700-1,82,400	68800	11-10-2013	Permanent	OBC
6	Scientist/SMS	Dr. Anitha M S	Scientist	F	Soil Science	M.Sc. (Agri.) in SS&AC , Ph.D.	57,700-1,82,400	61200	31-01-2018	Permanent	OBC
7	Scientist/SMS	Dr. Darshan M E	Scientist	M	Agril. Extn	M.Sc (Agri. Extn.), Ph.D.	-	35000	26-10-2011	Permanent	OBC
8	Programme Assistant (Lab Tech.)	Mrs. Arjuman Banu	Programme Assistant (Lab Tech.)	F	-	B.Sc. (Agri.), MBA (ABM)	44900-142400	47600	10-12-2013	Permanent	Others
9	Programme Assistant (Computer)	Mr. Pradeep Kumar. H	Programme Assistant (Computer)	M	-	BE (CSE), MCA	44900-142400	52000	22-01-2011	Permanent	SC
10	Programme Assistant/ Farm Manager	Mr.Chethan	Programme Assistant/ Farm Manager	M	-	M.Sc. (Agri.)	-	24300 consolidated	29.12.2021	Temporary	Others
11	Assistant	Mr. Santhosh Kumar M.P.		M	-	B Com	-	21600 consolidated	01-06-2018	Temporary	Others
12	Jr. Stenographer	Ms. Shama Naz	-	F	-	B.Sc. (Agri. Biotechnology)	-	19640 consolidated	25-08-2020	Temporary	Others
13	Driver - 1	Mr. B. Mallikarjunaiah	-	M	-	SSLC	27650-52650	36950	18-02-2010	Permanent	Others
14	Driver - 2	Mr. Harish B N	-	M	-	SSLC	-	15660 consolidated	09-06-2017	Temporary	Others
15	SS-1	Mr. L. Manjaiah	-	M	-	SSLC	18600-32600	24050	20-10-2008	Permanent	SC
16	SS-2	Mr. Rudresha	-	M	-	SSLC	-	12960 consolidated	03-03-2018	Temporary	Others

**1.6. Total land with KVK (in ha): 23 ha**

S. No.	Particulars	Area (ha)
1.	Under Buildings	03
2.	Under Demonstration Units	
3.	Under Crops	20
4.	Orchard/Agro-forestry Others	

**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 UAS	22.02.2012	-	55,00,000 25,00,000	-	-	-
2.	Farmers Hostel	ICAR	22.12.2012	550	53,00,000	-	-	-
3.	Staff Quarters				Nil			
4.	Demonstration Units					-	-	-
	Dairy unit	UAS	2009	-	-	-	-	-
	Sheep unit	UAS	2009	-	-	-	-	-
	Poly house	NHM	2011	-	-	-	-	-
	Green House	NHM	2011	-	-	-	-	-
	Vermi Compost Unit	NHM	2015	-	-	-	-	-
	Bio Digester	ICAR	2015	-	-	-	-	-
	IFS Demonstration unit	ICAR	2015	-	-	-	-	-
	Krishi Bhagya Model	GOK	2016	-	-	-	-	-
	Millet Processing unit	UAS	2019	-	-	-	-	-
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
JeepMahindra BOLERO	2017	666162	140000	Working
Tractor Massey Ferguson	2002	3,80,000	5392.2	Working
BikeTVS Star City (ICAR, 79 / III)	2006	40,000	59050	Working
Honda Activa (ICAR, 7 / IV)	2009	50,000	50025	Working

**C) Lab equipment & AV aids**

Sl. No.	Name of Equipments	Year of purchase	Cost (Rs.)	Present status
1	Photo Copier (Toshiba)	30-03-2009	77,954	Not working
2	Generator (10 KV)	01-04-2002	86,100	Not working
3	Over Head Projector (OHP)	28-05-2002	15,976	Good
4	Camera Pentax –SLR	31-07-2002	25,000	Not working
5	Public Address System	31-07-2002	21,500	Good
6	Kodak Ektalite Slide Projector with slide tray	05-04-2003	47,125	Not working
7	Philips TV 21 inches + VGuard Stabilizer	20-05-2003	12,513 + 882	Not working
8	Philips DVD Player 625 K	20-05-2003	8,276	Not working
9	LYNX Stevenson Screen Single	04-07-2003	6,000	Good
10	Trolley Stand	05-04-2003	7,655	Good
11	Bee hive boxes (12 nos.)	06-01-2003	7,800	Good
12	Nova easy carry display system (1 set)	06-01-2003	14,000	Good
13	Nova cardinal writing board (3' x 4')	05-04-2003	5,742	Good
14	HP Deskjet 3745 Printer	12-03-2005	3,400	Good
15	HP Scanjet 2400 Scanner	12-03-2005	4,400	Not working
16	Thoshiba Projector	14-06-2007	60,106	Good
17	Honda weed cutter	17-02-2009	30,000	Good
18	Panasonic fax machine	21-01-2011	15200	Good
19	HP Lasejet 1020plus printer	28-02-2012	7,350	Good
20	Computer (Intel Pentium)	21-01-2013	14000	Good
21	CANON Laser printer	21-01-2013	5200	Good
22	Digital Sony camera MDSEW 320	21-01-2013	25000	Not working
23	Acer desktop computer	28-02-2013	32,150	Good
24	DSC coolpix S 6300 NIKON digital camera	07-03-2013	10,490	Not working
25	NIKON coolpix P530 camera	13-03-2013	19,991	Not working
26	Chaff cutter machine	Feb.2016	25,300	Good
27	Epson multifunction printer	Feb.2016	13,999	Good

28	Seagate external hard drive	Feb.2016	6,500	Good
29	Xerox machine	Mar.2016	99,000	Good
30	Kent water guard	Nov.2016	16,000	Not working
31	Digital electrical conductivity meter	11-03-2017	15,845	Good
32	UPS system	Jan.2017	81,994	Good
33	Trolley Speakers	March 2017	18,000	Good
34	Projector screen	Jan. 2017	5,500	Good
35	Computers	Feb.2017	80,971	Good
36	Interactive Board	Mar.2017	30,595	Good
37	CCTV camera	Mar.2017	59,513	Good
38	Mini Laptop	March 2017	14,028	Good
39	Tablet	March 2017	8,177	Good
40	Office Chairs	Feb.2017	59,991	Good
41	AC unit	March 2017	27,995	Good
42	Kiosk Tent	March 2017	10,000	Good
43	Hydrophonic unit	March 2017	70,000	Good
44	Neelkamal Chairs	March 2017	10,611	Good
45	Projector screen	Jan.2017	5,500	Good
46	FTTH connection	March 2019	12,000	Good
47	Epson L655 printer	02-11-2019	29568	Good
48	Dell incpim intel core	07-11-2019	50600	Good
49	4TB seagate external hard disc	07-11-2019	11800	Good
50	Electronic balance	13-11-2019	46080	Good
51	Digital conductivity meter	18-12-2021	23600	Good
52	Aluminium sliding window	13-12-2021	16042	Good
53	pH meter electrode system	21-12-2021	33276	Good
54	Dell laptop intercore	06-03-2018	49000	Good

### 1.8. Details of SAC meeting organized

Date	Number of Participants	Salient Recommendations	Action taken	Remarks, if any
06.01.2021	47	<ul style="list-style-type: none"> <li>➤ Conduct awareness programme on Integrated management of Rugose Spiralling white flies in coconut</li> <li>➤ Creating awareness among the farmers by introducing Nari Suvarna sheep breed in sheep rearing unit of KVK and also provide training</li> <li>➤ Create awareness among farmers on different schemes available in development departments during training</li> </ul>	Suggestions are included in the action plan 2020-21 and presented in 15th SAC meeting on 13.01.2022	--

		<p>programmes organised at KVK</p> <ul style="list-style-type: none"> <li>➤ Conduct training programmes on weed management in ragi, value addition and marketing of minor millets.</li> <li>➤ Conduct training programme on Areca leaf products preparation</li> <li>➤ Initiating the actions to produce Koranda seedling and value addition</li> <li>➤ Organize training programme on “malnutrition in childrens” in collaboration with Department of women and child welfare</li> <li>➤ Initiating the Production of coconut seedlings in KVK farm</li> <li>➤ Conduct training programme on compost preparation by using Areca husk for the members of FPO’s</li> <li>➤ Create awareness on tree mulberry and Integrated farming system involving sericulture</li> <li>➤ Conduct study on cost reduction in usage of fertilizers based soil analysis recommendations</li> <li>➤ Under Atmanirbhar scheme, conduct training programmes on preparation of value added products by using livestock produces in collaboration with Animal Husbandry department.</li> <li>➤ Conduct awareness programmes on protection of local varieties</li> <li>➤ Make necessary arrangements for dissemination of weather based agro advisories to large number of farmers through DAMU.</li> <li>➤ Since the year 2021 is announced as the international year of fruits and vegetables, more emphasis should be given for the promotion of nutrition garden. Demonstrate and popularise Nutrition garden in KVK farm and schools.</li> <li>➤ Demonstration of fodder cafeteria in KVK farm and popularizing among the farmers</li> <li>➤ Avail the facility of Sexed Semen of HF/Jersey available in Department of Animal Husbandry and Veterinary Services and educate the farmers</li> <li>➤ Collect the baseline data of the presently adopted village. Prepare and present the impact report of the technologies demonstrated and activities carried out in earlier adopted villages.</li> <li>➤ Make arrangements to display significant achievements made by KVK in office for the benefit of farmers</li> </ul>		
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## 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	Finger millet, Paddy, Ground nut, Redgram, Coconut, Vegetables, Arecanut, Dairying, Sericulture

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

S. No	Agro-climatic Zone	Characteristics
1	Central DryZone (Zone - 4) Madhugiri, Pavagada, Sira, Koratagere, and C.N. Halli taluks	Red sandy soil mixed with clay soil and patches of black soil Average rain fall 606.81 mm Source of irrigation are small tanks & borewells
2	Eastern DryZone (Zone -5) Tumakuru and Gubbi taluk	Red clay loam and clay lateritic soil Average rainfall 768.16 mm Source of irrigation are tanks, wells and borewells
3	Southern DryZone (Zone-6) Kunigal, Tiptur and Turuvekere taluk	Red sandy soil mixed with clay soil. Average rainfall 750.56 Source of irrigation are small tanks and borewells

### 2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Red sandy loam	Soil contains 75-80% sand, silt 5-15% and clay 16-20%. Depth of the soil is shallow to medium. The clay fraction of red soils is rich in kaolinitic type of clay minerals, medium in fertility	6, 15,230
2	Shallow black soils	Depth of the soil is shallow, water holding capacity is poor, low fertility	2, 45,432
3	Red loamy soils	Red loams characterized by argillaceous soils with a cloddy structure and the presence of only a little concretionary material. Soils contain 31 – 34 % sand and 44 to 47% silt and 22 to 25 % clay, medium to high fertility. "N" is below 0.1 percent	2, 04,093

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

Sl. No	Crops	Area (ha)	Production (tons)	Productivity (q/ha)
1	Paddy	34,471	25,829	38
2	Finger millet	1,49,734	2,51,525	15.5
3	Minor millets	3,303	4,128	8.5
4	Red gram	16,796	4128	12
5	Horse gram	11,460	5180	5.5



6	Black gram	604	193	3.2
7	Green gram	13,377	4348	5.5
8	Cow pea	4,495	1686	6.5
9	Field bean	8,009	2523	26
10	Groundnut	65,187	42567	6.5
11	Sesamum	662	119	3.5
12	Castor	1,838	783	8.5
13	Coconut	176192	10921 (Lakhs)	65 (No/palm)
14	Arecanut	55298	71478	1100
15	Mango	20469	171284	10000
16	Banana	3772	104316	24600
17	Tomato	4157	234500	53000
18	Brinjal	354	11,371	121.2
19	Chilli	874	24765	29300
20	Tamarind	2,556	15,159	60

(Source: Dept. of Agriculture, Tumakuru)

Sl. No.	Crop	Area (ha)	Production in M.Tons	Yield in Tons/Hectare	Value in Rs. Lakhs
<b>I. Fruit Crops</b>					
1.	Mango	11929	229207	19.21	22921
2.	Banana(Total)	4904	140178	28.58	12632
a.	Cavandish	980	34702	35.41	2084
b.	Other Varieties	3924	105476	26.88	10548
3.	Total Citrus Varieties	227	4415	19.45	697
a.	Lemon	47	1211	25.77	121
b.	Orange	2	50	25.00	9
c.	Gourd Varieties	178	3154	17.72	567
4.	Guava	185	5017	27.12	1002
5.	Sapota	738	10283	13.93	1542
6.	Pomegranate	1369	11327	8.27	3173
7.	Jack	146	5876	40.25	940
8.	Papaya	180	13764	76.47	3718
9.	Grapes	10	161	16.10	32

Sl. No.	Crop	Area (ha)	Production in M.Tons	Yield in Tons/Hectare	Value in Rs. Lakhs
10.	Fig	8	96	12.00	29
<b>II. Vegetable Crops</b>					
11.	Potato (Total)	28	654	23.36	62
a.	Kharif	9	154	17.11	15
b.	Rabi	7	140	20.00	11
c.	Summer	12	360	30.00	36
12.	Tomato (Total)	632	22806	36.09	2576
a.	Kharif	374	8027	21.46	802
b.	Rabi	154	8620	55.97	1034
c.	Summer	104	6159	59.22	740
13.	Brinjal	312	10900	34.94	981
14.	Beans	191	2173	11.38	334
15.	Onion (Total)	414	7938	19.17	1182
a.	Kharif	385	7335	19.05	1100
b.	Rabi	15	312	20.80	47
c.	Summer	14	291	20.79	35
16.	Green Chillies	962	13795	14.34	828
17.	Tapioca	6	86	14.33	5
18.	Sweet Potato	16	240	15.00	17
19.	Khol Varieties (Total)	64	1344	21.00	84
a.	Cabbage	11	292	26.55	11
b.	Knol-Khol	49	980	20.00	69
c.	Cauliflower	4	72	18.00	4
20.	Peas	5	90	18.00	18
21.	Lady's Finger	31	290	9.35	37
22.	Radish	26	363	13.96	23
23.	Beet Root	2	38	19.00	4
24.	Carrot	54	1067	19.76	117
25.	Capsicum	8	112	14.00	13
26.	Drumstick (in lakh sticks)	4	8	2.00	2
27.	Watermelon	460	19635	42.68	1080

Sl. No.	Crop	Area (ha)	Production in M.Tons	Yield in Tons/Hectare	Value in Rs. Lakhs
28.	Muskmelon	50	751	15.02	45
29.	Leafy Vegetables (Total)	94	1170	12.45	66
a.	Menthi	3	30	10.00	2
b.	Palak	12	120	10.00	7
c.	Amaranthus	23	460	20.00	28
d.	Other Leafy Vegetables	56	560	10.00	29
30.	Gourd Varieties (Total)	494	10275	20.80	795
a.	Ash Gourd	2	50	25.00	3
b.	Snake Gourd	12	204	17.00	12
c.	Bitter Gourd	11	101	9.18	9
d.	Ridge Gourd	9	81	9.00	7
e.	Pumpkin	3	90	30.00	6
f.	Cucumber	41	738	18.00	38
g.	Little Finger	2	70	35.00	4
h.	Gherkins	414	8941	21.60	716
<b>III. Spice Crops</b>					
31.	Spice Crops (Total)	5129	20233	3.94	13166
32.	Pepper	6	2	0.33	4
33.	Tamarind	2556	15159	5.93	10611
34.	Ginger	1	12	12.00	7
35.	Turmeric	1	12	12.00	7
36.	Garlic	1	9	9.00	5
37.	Dry Chillies	2498	4996	2.00	2498
38.	Coriander	50	35	0.70	21
39.	Vanilla	16	8	0.50	13
<b>IV. Plantation Crops</b>					
40.	Plantation Crops(Total)	155620	37552	0.24	52284
41.	Coconut	132587	20912	0.16	12546
42.	Arecanut	22058	37220	2	37220
43.	Betelvine	731	18615	25.47	1859
44.	Cocoa	109	64	0.59	64
45.	Cashew	130	260	2.00	587

Sl. No.	Crop	Area (ha)	Production in M.Tons	Yield in Tons/Hectare	Value in Rs. Lakhs
46.	Other Plantation Crops	5	8	1.60	8
<b>V. Commercial Flowers</b>					
47.	Flower Crops (Total)	2959	27588	9.32	9926
a.	Aster	959	9590	10.00	1440
48.	Crossandra	154	770	5.00	1386
49.	Marigold	110	1100	10.00	88
50.	Jasmine	955	4893	5.12	4159
51.	Chrysanthamum	705	10575	15.00	2646
52.	Tube Rose	65	650	10.00	195
53.	Rose (lakh flowers)	9	18	2.00	10
54.	Other Flower Crops	2	10	5.00	2
<b>VI. Medicinal Plants</b>					
55.	Medicinal Plants (Total)	64	616	9.63	294
56.	Sweet Flag	58	580	10.00	290
57.	Other Medicinal Plants	6	36	6.00	4

### 2.5. Weather data (Tiptur Taluk)

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)
		Maximum	Minimum	
January 21	23.0	19.59	10.14	69.09
February 21	18.5	32.25	16.15	91.62
March 21	0.0	27.32	16.21	54.70
April 21	104.5	34.09	21.30	86.86
May 21	152.7	25.35	17.04	65.93
June 21	144.0	21.3	15.13	100.2
July 21	110.5	27.49	18.08	133.06
August 21	141.5	28.52	19.94	149
September 21	99.5	28.80	19.89	152.5
October 21	271.5	26.45	18.40	143.12
November 21	196.0	25.63	16.99	138.4
December 21	99.5	28.60	16.62	137
<b>Total</b>	<b>1361.20</b>	<b>27.11</b>	<b>17.15</b>	<b>110.12</b>

Source: IMD, Pune

## 2.5. Weather data (Tumakuru Taluk)

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
January 21	19	19.56	10.35	68.74
February 21	23	31.07	16.46	90.58
March 21	0	29.49	18	72.77
April 21	65	34.71	21.88	80.6
May 21	88	26.2	17.49	74.25
June 21	100.6	21.75	15.45	96.56
July 21	147.9	28.24	18.87	139.09
August 21	122	28.91	19.82	150.93
September 21	44	29.09	19.76	156.56
October 21	296	28.22	19.48	156.64
November 21	229	33.83	16.63	140.5
December 21	-	27.38	16.10	140.03
<b>Total</b>	<b>1134.5</b>	<b>26.03</b>	<b>17.52</b>	<b>113.60</b>

Source: IMD, Pune

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	63704	54	5.5745
<i>Indigenous</i>	440888	56	2.0671
<b>Buffalo</b>	217528	68	2.5382
<b>Sheep</b>	<b>meat 000 tons</b>		
<i>Crossbred</i>	9		--
<i>Indigenous</i>	884643	17.31	--
<b>Goats</b>	322373	16.60	--
<b>Pigs</b>	-	-	-
<i>Crossbred</i>	905	0.23	--
<i>Indigenous</i>	12411		--
<b>Rabbits</b>	560	NA	--
<b>Poultry</b>	<b>Egg production in lakhs</b>		
Hens		--	--
<i>Desi</i>	6,42,382	273	--
<i>Improved</i>	-	71	--

Category	Population	Production	Productivity
Ducks	-	-	-
Turkey and others	-	-	-

Category	Area	Production	Productivity
Fish	-		
Marine	-		
Inland	1306 ha	16,000 metric ton	650-700 kg/ha
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

2.7 District profile maintained in the KVK has been **Updated** for 2021: 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	Tiptur	Nonavinakere	Byrapura Chikkabidare Gopalanapalya Gowdanakatte Kallegowdanapalya Kannaghatta Karadalu Karikere Kibbanhalli Koppa Kunduru Mundunathapura Nagalehalli Nagaraghatta Nagathihalli Paragondanahalli Sattaramanahalli T L Palya Thimalapura	3 year	Millets Redgram  Castor  Ragi,  Chilli, IFS Chilli Cattle Mushroom and Amla products and marketing	<ul style="list-style-type: none"> <li>• Low soil fertility, poor nutrient management practices and low yield</li> <li>• Incidence of pod borer menace</li> <li>• Use of local and old varieties, yield decline due to pest semi looper Neck and finger blast,</li> <li>• Lack of knowledge on value addition</li> <li>• Low productivity</li> <li>• Low income to run family</li> <li>• Less profit and high incidence of Mastitis</li> <li>• Low Income generating</li> </ul>	Enhancing crop productivity through soil, pest and disease management. Improved animal husbandry practices Income generating activities for SHG's Processing and value addition of agriculture and horticulture produce

						<p>activities for SHG's</p> <ul style="list-style-type: none"> <li>• Less awareness on Processing and value addition of agriculture and horticulture produce</li> </ul>	
2	Turvekere	Dhabeghatta	M V Halli Lakkasandra	3 year	Bengalgram Tomato Banana Arecanut	<p>Inefficient use of paddy fallows Use of local and old varieties, improper control measures for pod borer Low yield, Lack of HYVs, Improper nutrient management Less productivity, incidence of pest and diseases Improper plant protection measures for wilt including use of tolerant variety Severe nut splitting and yield loss due to deficiency of boron</p>	<p>Introduction of high yielding varieties Nutrient and water management</p>
3	C.N. Halli	Shettikere	Godekere Bagganahalli Banadevarahatti Bagganahalli Ranganahalli Ranganakere Somanahalli Kannaghatta Ranganakere Guruvapura Ganadalu Belavadi Mathighatta Madapura Mathighatta Madapura Mathighatta Sreyadanahalli	3 year	Groundnut Millet crops Coconut  Vegetable	<p>Low soil fertility, high weed infestation and lower income Low yield potential of existing ruling varieties Lack of awareness on branding and labeling of millet products Severe incidence of Basal stem rot leading to death of palm Inefficient use of space, and lower income from mono cropping</p>	<p>Enhancing productivity through introduction of high yielding variety and pest management and other improved packages Processing and value addition of agriculture and horticulture produce</p>
4	Gubbi	Nittur	Sagaranahalli Kodinadevanahalli Tyagaturu	3 year	Coconut Arecanut Vegetable	<p>Mono-cropping, no appropriate use of space and cropping in plantation crops</p>	<p>Enhancing productivity Sustainable income generation through animal</p>

			Bommanahalli Kodinagenahalli N Rampura Samudrakote Muganahunase Paragondanahalli K D Halli		Flower crops Sheep farming Poultry	Severe incidence of Red palm weevil and Black headed caterpillar leading to yield decline Inefficient use of space , low soil fertility, heavy weed growth Infestation of fluke worm (Fasciola hepatica), loss of body condition, jowl oedema, pipe stem liver, loss of carcass quality Loss of body condition, improper weight gain, decreased egg production, increase in number of culls, clubbed foot	husbandry activities
5	Kunigal	Hippadi	Doddamadure Varevanagodanadaddi Doddakoppalu	3 years	Coconut Vegetable Paddy Finger millet	Low soil fertility, high weed infestation and lower income Low yield potential of existing crop varieties Severe incidence of Basal stem rot leading to death of palm Inefficient use of space, and lower income from mono cropping	Enhancing productivity through introduction of Integrated cop management approach

## 2.9 Priority thrust areas

S. No	Thrust areas
1	Integrated water management with special emphasis on micro - irrigation
2	Integrated Nutrient Management in Agri. and Horticultural crops
3	Introduction of newer varieties
4	Integrated Pest and Disease Management
5	Integrated farming system with special emphasis to livestock
6	Value addition & market linkage through CBA's / FPO's



**PART III - TECHNICAL ACHIEVEMENTS**

**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	16	16	22	22	250	250

Training (Farmers/farm women)				Training (Rural youth)			
3				4			
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
80	85	3000	3329	10	11	250	350

Training (Extension personnel)				Training (sponsored)			
5				6			
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
4	5	200	251	7	8	280	341

Training (Vocational)				Extension Programmes			
7				8			
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
-	-	-	-	3000	3358	14500	15120

Seed Production (Q)		Planting material (Nos.)	
9		10	
Target	Achievement	Target	Achievement
Ragi: 20	Ragi: 25	Drumsick: 500	Drumsick: 800
Saame:5	Saame:6	Papaya: 105	Papaya: 125
Redgram: 4	Redgram: 4	Arecanut : 3000	Arecanut : 4000
-	-	Coconut : 600	Coconut : 700

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
11		12	
Target	Achievement	Target	Achievement
-	-	-	-

Soil, water, plant and manure analysis (including mobile kits)				Mobile agro advisories provided			
13				14			
Samples (No.)		Farmers (No.)		Messages including text, voice (No.)		Farmers (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
Soil- 564	564	458	458	35	40	18000	20500
Water- 476	476	384	384	-	-	-	-

### 3.B1. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										Supply of bio products			
				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.)	No.	Kg			
1	Varietal Evaluation	Jasmine	Low yielding and quality Lack of awareness in pruning time	Assessment of Pruning time in Jasmine (Kakada)	-	1	-	-	-	1	-	-	-	-	-	-	-
2	Varietal Evaluation	Chilli	Low yielding hybrids, poor quality, leaf curling and powdery mildew disease incidence	Assessment of chilli hybrids for disease resistance and higher productivity.	-	1	-	-	-	1	-	-	-	-	-	-	-
3	Varietal Evaluation	Pomegranate	Low yield, incidence of Pest and Diseases Imbalanced nutrient management	Assessment of bio formulations for improving Quality and plant health management of Pomegranate	-	1	-	-	-	1	-	-	-	-	-	-	-
4	Varietal Evaluation	coconut	Low yielding varieties, single cutting, Scarcity of fodder and no appropriate use of interspaces	Assessment of fodder crops as inter crop in coconut garden	-	1	-	-	-	1	-	-	-	-	-	-	-
5	Introduction variety	Finger millet	Low yield, frequent dry spells and available varieties are susceptible to incidence of blast	-	Demonstration of Finger millet variety KMR - 630	1	1	1	1	1	50 kg	-	-	-	Biofertilizer-	30 kg	
6	Introduction variety	Paddy	Low yield , Blast disease	-	Demonstration of paddy variety Gangavathi Sona	1	1	1	1	1	60 kg	-	-	-	-	-	-
7	Integrated Crop Management	Tomato	Use of Low yielding variety, Poor nutrient management, blight and wilt incidence	-	Integrated Crop Management in Tomato (Arka Abeda)	2	1	1	1	1	100g	-	-	-	AMC-	20kg	
8	Integrated Crop Management	Chilli	Low yielding variety, poor nutrient management, flower	-	Integrated Crop Management in Chilli	1	1	-	-	1	300g	-	-	-	-	-	-

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	
			drops, Murda complex & powdery mildew incidence		(Arka Kathi)									
9	Integrated Crop Management	Areca nut	Poor soil fertility status, nut spitting and dropping, improper nutrient management, incidence of pest and disease and low returns	-	Integrated Crop Management in Areca nut	2	1	-	1	-	-	-	AMC(liquid)	20lt
10	Integrated Crop Management	Mango	Improper canopy management, Alternate bearing, poor nutrient management, fruit dropping, Fruit fly & Powdery mildew menace	-	Integrated Crop Management in Mango (Var. Alphanso)	2	1	-	1	-	-	-	AMC(liquid)	20lt
11	inter cropping System	Coconut	Mono-cropping, no appropriate use of space, low income and poor soil fertility status	-	French Bean as a intercrop in Coconut garden	1	1	-	1	40 kg	-	-	AMC-	18 kg
12	Inter cropping system	Areca nut	Improper utilization of inter-space and weed menace in younger areca nut gardens	--	French Bean as an intercrop in younger Areca nut garden	2	-	-	2	60kg	-	-	Trichderma Pseudomonas Vegetable special Neem cake	36kg 36kg 48kg 360kg
13	Integrated nutrient management	Coconut	Improper nutrient and moisture conservation practices, mono cropping and low returns	-	Integrated nutrient management in Coconut	2	-	-	1	30kg	-	-	Trichderma Pseudomonas Neem cake	20kg 20kg 600kg
14	Integrated Crop Management	French bean	Non adoption of photo period insensitive, stringless variety	-	ICM in French bean	2	-	-	1	50kg	-	-	Trichderma Pseudomonas Vegetable special Neem cake AMC	15kg 15kg 20kg 200 kg 15kg
15	Introduction variety	Tamarind	Lack of awareness on improved tamarind varieties, poor knowledge on dry land fruit crops	-	Introduction of Tamarind variety GKVK-17	2	-	-	1	429	-	-	Tamarind GKVK-17 seedlings	429
16	Fodder development	Fodder var. COFS 31	Low fodder yield, Non availability of fodder through out the year and Lack of knowledge on new varieties	-	Fodder var. COFS 31 for higher yield	3	-	-	2	20 kg	-	-	-COFs-31 seeds	20kg-
17		Coconut	Lack of Knowledge on processing and value addition	-	EDP Programme-Coconut :	3			3	-	-	-	Labels and packaging	1000 4

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		
			Low income		Value Addition, Branding and Market Linkage									Miscellaneous	bundles
18	Nutrition garden	Nutrition garden	Lack of Knowledge	-	Nutrition garden to farm families	7				4	-	-	-	vegetable seeds kit Medicinal plants flower seedlings vegetable seedlings Neem cake vermicompost	30 150 300 600 90kg 150kg
19	Inter-cropping	Hebbal Avare	Improper utilization of inter-space and weed menace in younger arecanut gardens	-	Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens	2	-	-		1	-	-	-	-	-
20	composting methodology	areca husk	improper method of composting methodology	-	Demonstration of composting methodology for areca husk	2	-	-		1	-	-	-	-	-
21	ICM	Mango	Improper canopy management, Alternate bearing, poor nutrient management, fruit dropping, Fruit fly & Powdery mildew menace	-	Enhancement of productivity through ICM in Mango variety (Var. Alphanso)	3	-	-		2	-	-	-	-	-
22	INM	Arecanut	Poor soil fertility status, nut spitting and dropping, improper nutrient management, incidence of pest and disease and low returns	-	Enhancement of productivity in Arecanut through nutrient mgt	3	-	-		3	-	-	-	-	-
23	INM	Banana	Improper sucker management, poor nutrient management and their dosage, pest and disease management	-	Integrated Nutrient Management in Banana (Var. Puttabale)	2	-	-		1	-	-	-	-	-
24	Management of dairy cow	Dairy cow	Lower peak milk production Decreased reproductive efficiency after calving Increased Calving difficulties	-	Management of dairy cow during the transition phase through supplementation of Bypass Fat	2	-	-		1	-	-	-	-	-

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	
			( dystocia, septic metritis, Ruminal acidosis, ketosis & milk fever)											
25	Integrated Scientific management	Heifers	Delayed onset of estrus, Anestrus, Juvenile genitalia and Smooth ovaries	-	"Management of Anestrus in Heifers"	3	-	-	2	-	-	-	-	-
26	Integrated Scientific management	Sheep/Goats	Lower body weight due to imbalanced nutrition High mortality	-	Integrated Scientific management in Sheep/Goats	3	-	-	3	-	-	-	-	-

### 3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/enterprise	No.ofprogrammes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1.	Assessment of Pruning time in Jasmine (Kakada)	TNAU,Coimbatore, IIHR, Bengaluru& UHS, Bagalkot	Jasmine	1	-	3	-
2.	Assessment of chilli hybrids for disease resistance and higher productivity.	IIHR(B) & UAS(B)	Chilli	1	-	4	1
3.	Assessment of bio formulations for improving Quality and plant health management of Pomegranate	IFFCO New Delhi, IIHR Bengaluru, IFFCO New Delhi	Pomegranate	1	-	4	-
4.	Assessment of fodder crops as inter crop in coconut garden	CPCRI Kasargod , IGFRI Dharwad , UHS Bagalkot	coconut	1	-	3	-
5.	Demonstration of Finger millet variety KMR - 630	UAS (B)	Finger millet	-	1	4	-
6.	Demonstration of paddy variety Gangavathi Sona	UAS (B)	Paddy	-	1	3	-
7.	Integrated Crop Management in Tomato (Arka Abeda)	IIHR (B)	Tomato	-	1	2	-
8.	Integrated Crop Management in Chilli (Arka Kathi)	IIHR (B)	Chilli	-	1	2	-
9.	Integrated Crop Management in Arecanut	CPCRI Kasaragod	Arecanut	-	1	5	-
10.	Integrated Crop Management in Mango (Var. Alphanso)	IIHR (B)	Mango	-	1	3	-
11.	French Bean as a intercrop in Coconut garden	IIHR (B)	Coconut	-	1	2	-
12.	French Bean as an intercrop in younger Arecanut garden	IIHR (B)	French Bean	-	1	4	-
13.	Integrated nutrient management in Coconut	UAS (B)	Coconut	-	1	6	-
14.	Integrated Crop Management in French bean	IIHR (B)	French bean	-	1	3	-
15.	Introduction of Tamarind variety GKVK-17	UAS (B)	Tamarind	-	1	5	-
16.	Fodder var. COFS 31 for higher yield	Namakal	Fodder var. COFS 31	-	1	2	-
17.	EDP Programme-Coconut : Value Addition, Branding and Market Linkage	TNAU, Coimbatore	Coconut : Value Addition	-	1	3	-
18.	Nutrition garden to farm families	UAS (B)	Nutrition garden	-	1	7	-
19.	Inter-cropping of Hebbal Avare-4 (HA-4) in younger arecanut gardens	UAS (B)	Hebbal Avare	-	1	2	-

20.	Demonstration of composting methodology for areca husk	UAS (B)	areca husk	-	1	2	-
21.	Enhancement of productivity through ICM in Mango variety (Var. Alphanso)	IIHR (B)	Mango	-	1	3	-
22.	Enhancement of productivity in Arecanut through nutrient mgt	CPCRI, Kasaragod	Arecanut	-	1	3	-
23.	Integrated Nutrient Management in Banana (Var. Puttabale)	IIHR (B)	Banana	-	1	2	-
24.	Management of dairy cow during the transition phase through supplementation of Bypass Fat	NDDDB & NIANP	Dairy cow	-	1	2	-
25.	“Management of Anestrus in Heifers”	KVAFSU	Heifers	-	1	3	-
26.	Integrated Scientific management in Sheep/Goats	KVAFSU	Sheep/Goats	-	1	3	-

## 3.B2 contd..

Sl. No.	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	
1	2	1	1	-	-	-	-	20	15	10	20	-	-	-	-	
2	1	1	2	-	-	-	-	60	15	30	10	-	-	-	-	
3	2	1	1	-	-	-	-	52	31	45	15	5	3	6	-	
4	2	1	1	-	-	-	-	20	15	10	20	-	-	-	-	
5	-	-	-	-	5	3	2	2	20	30	15	10	-	-	-	-
6	-	-	-	-	8	-	2	-	47	28	34	17	15	8	12	-
7	-	-	-	-	5	3	2	2	20	30	15	10	-	-	-	-
8	-	-	-	-	2	1	1	1	28	15	32	11	7	3	4	2
9	-	-	-	-	2	3	2	2	20	30	21	18	-	-	-	-
10	-	-	-	-	5	2	2	1	54	16	31	18	12	8	14	10
11	-	-	-	-	2	3	2	2	20	30	21	18	-	-	-	-
12	-	-	-	-	5	2	2	1	54	16	31	18	-	-	-	-
13	-	-	-	-	18	12	8	6	30	15	10	5	-	-	-	-
14	-	-	-	-	4	-	-	-	10	8	-	-	-	-	-	-
15	-	-	-	-	2	1	1	1	28	15	32	11	-	-	-	-
16	-	-	-	-	2	3	2	2	20	30	21	18	-	-	-	-
17	-	-	-	-	2	1	1	1	28	15	32	11	-	-	-	-
18	-	-	-	-	2	3	2	2	20	30	21	18	-	-	-	-
19	-	-	-	-	-	20	-	10	-	30	-	-	-	-	-	-
20	-	-	-	-	5	3	2	2	20	30	15	10	-	-	-	-
21	-	-	-	-	8	-	2	-	47	28	34	17	-	-	-	-
22	-	-	-	-	5	3	2	2	20	30	15	10	-	-	-	-
23	-	-	-	-	2	1	1	1	28	15	32	11	-	-	-	-
24	-	-	-	-	2	3	2	2	20	30	21	18	-	-	-	-
25	-	-	-	-	5	2	2	1	54	16	31	18	-	-	-	-
26	-	-	-	-	2	3	2	2	20	30	21	18	-	-	-	-







**4.A3. Abstract on the number of technologies assessed in respect of livestock : 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						
Dairy						
Others (Pl. specify)						
<b>TOTAL</b>						

**4.A4. Abstract on the number of technologies refined in respect of livestock : 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						
Dairy						
Others (Pl. specify)						
<b>TOTAL</b>						

**4.B. Achievements on technologies Assessed and Refined****4.B.1. Technologies Assessed under various Crops**

Thematic areas	Crop	Name of the technologies	No. of trials	Number of farmers / locations	Area in ha (Per trial covering all Technological Options in a farm)
Integrated Nutrient Management					

Varietal Evaluation	Jasmine	Assessment of Pruning time in Jasmine (Kakada)	3	3	0.9 ha
	chilli	Assessment of chilli hybrids for disease resistance and higher productivity.	5	5	1.0 ha
	Pomegranate	Assessment of bio formulations for improving Quality and plant health management of Pomegranate	3	3	1.0
	fodder crops	Assessment of fodder crops as inter crop in coconut garden	5	5	1.0 ha
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					
<b>Total</b>			16	16	3.9 ha

**4.B.2. Technologies Refined under various Crops : NIL**

Thematic areas	Crop	Name of the technologies	No. of trials	Number of farmers/locations	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					
Post Harvest Technology/Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					

Cropping Systems				
Farm Mechanization				
Others, Pl specify				
<b>Total</b>				

**4.B.3. Technologies assessed under Livestock : NIL**

Thematic areas	Name of the livestock	Name of the technologies	No. of trials	No. of farmers/locations
Evaluation of breeds				
Nutrition management				
Disease management				
Processing and Value addition				
Production and management				
Feed and fodder management				
Small scale income generating enterprises				
Others, pl. specify				
<b>Total</b>				

**4.B.4. Technologies Refined under Livestock and other enterprises : NIL**

Thematic areas	Name of the livestock	Name of the technologies	No. of trials	No. of farmers/locations
Evaluation of breeds				
Nutrition management				
Disease management				
Processing and Value addition				
Production and management				
Feed and fodder management				
Small scale income generating enterprises				
Others, pl. specify				
<b>Total</b>				

**4.B.5. Technologies assessed under various enterprises by KVKs : NIL**

Sl.	Thematic areas	Name of the enterprise	Name of technology(s)	No. of trials	No. of locations
1	Drudgery reduction				
2	Entrepreneurship Development				
3	Health and nutrition				
4	Processing and value addition				
5	Energy conservation				
6	Small-scale income generation				

7	Storage techniques				
8	Household food security				
9	Organic farming				
10	Agroforestry management				
11	Mechanization				
12	Resource conservation technology				
13	Value Addition				
14	Others, pl. specify				

**4.B.6. Technologies assessed under various enterprises for women empowerment : NIL**

	<b>Thematic areas</b>	<b>Name of enterprise</b>	<b>Name of technology(s)</b>	<b>No. of trials</b>	<b>No. of locations</b>
1	Drudgery Reduction				
2	Entrepreneurship Development				
3	Health and Nutrition				
4	Value Addition				
5	Women Empowerment				
6	Others, pl. specify				

#### 4.C1.Results of Technologies Assessed

##### OFT1: Assessment of Pruning time in Jasmine (Kakada)

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	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	11	12	13
Jasmine	Irrigation	Low yielding and quality Lack of awareness in pruning time	Assessment of Pruning time in Jasmine (Kakada)	03	TO 1 : ❖ Pruning of dead and diseased branches only ❖ INM: use of ground nut cake and FYM 10 to 20 kg per plant	Farmer's practice	44.50	q/ha	Flower yield/ plant (g) :1050 time taken for flowering after pruning (days): 62 No. of Flowers/plant (100 g): 624	467250	242750	2.08	
					TO 2: ❖ Time of Pruning : March, at a height of 50 cm from ground level ❖ INM : (FYM 10 kg/ plant) RDF 120:240:240 g/plant in two splits ❖ Foliar spray of micro nutrient ZnSO <sub>4</sub> 0.25% + MgSO <sub>4</sub> 0.5% + FeSO <sub>4</sub> 0.5%	TNAU, Coimbatore	58.65	q/ha	Flower yield/ plant (g) :1320 time taken for flowering after pruning (days) :54 No. of Flowers/plant (100 g):554	615825	403425	2.90	
					TO 3: ❖ Time of Pruning: March - Mid April at a height of 50 cm from ground level + 0.4% Potassium Iodide as spray for defoliation ❖ INM : (FYM 10 kg/plant) RDF 100:150:100 NPK g/plant in 3 split doses	IIHR, B'lore	62.45	q/ha	Flower yield/ plant (g) :1405 time taken for flowering after pruning (days) :51 No. of Flowers/plant (100 g):502	655725	458125	3.32	
					❖ TO4: Time of Pruning : March - April, at a height of 40-60 cm from ground level ❖ INM : (FYM 20 kg/ plant) RDF 120:240:240 NPK g/plant in six splits	UHS, Bagalkote	62.90	q/ha	Flower yield/ plant (g) :1420 time taken for flowering after pruning (days) :48 No. of Flowers/plant (100 g):494	660450	473950	3.54	

#### 4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of Pruning time in Jasmine (Kakada)	-	-

#### 4.C3. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1. Title of Technology Assessed : Assessment of Pruning time in Jasmine (Kakada)
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:-
6. Feedback on usefulness and constraints of technology: -

OFT2: Assessment of chilli hybrids for disease resistance and higher productivity

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
Chilli	Irrigation	Low yielding hybrids, poor quality, leaf curling and powdery mildew disease incidence	Assessment of chilli hybrids for disease resistance and higher productivity	5	TO1: Ulka hybrid (Pvt.)	Farmer's practice	198.0	q/ha	*	297000	161500	2.19
					TO2: Arka sanvi	IIHR(B)	210.0	q/ha	*	315500	188700	2.49
					TO3: Arka gagan	IIHR(B)	213.5	q/ha	*	320250	199650	2.66

#### \* Observations other than yield

Parameters	TO 1: Ulka hybrid (Pvt.)	TO 2 : Arka sanvi	TO 3 : Arka gagan
Fruit length (cm)	8.4	7.90	8.30
Fruit circumference (cm)	1.32	1.10	1.11
Fruit weight / plant (g)	1010	1135	1185



No. of fruits / plant	170	195	202
kara	Medium	Medium	High
Incidence of powdery mildew (%)	9.40	2.10	1.85
Incidence of bacterial wilt (%)	5.00	4.35	1.60
Gross cost (Rs./ha)	1,35,500	1,26,800	1,20,600
Gross Return(Rs./ha)			

#### 4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of chilli hybrids for disease resistance and higher productivity	Low incidence of powdery mildew and anthracnose	Non availability seed and seedlings at local dealer and nursery respectively

#### 4.C3. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1. Title of Technology Assessed : Assessment of chilli hybrids for disease resistance and higher productivity
2. Performance of the Technology on specific indicators: Low disease incident of powdery mildew and anthracnose
3. Specific Feedback from farmers : Lack of availability of seeds at local dealer and nursery
4. Specific Feedback from Extension personnel and other stakeholders : High yielding and market demand
5. Feedback to Research System based on results and feedback received: Low disease incident of powdery mildew and anthracnose
6. Feedback on usefulness and constraints of technology: Non availability seed and seedlings at local dealer and nursery respectively

**OFT3: Assessment of bio formulations for improving Quality and plant health management of Pomegranate**

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
Pomegranate	Irrigation	Low nutrient use efficiency & soil fertility Severe incidence of wilt (Ceratoscystis fimbriata), lower yield and Poor quality	Assessment of bio formulations for improving Quality and plant health management of Pomegranate	3	TO 1 : Dr Soil Fertility Booster.	Farmer's practice	In progress					
					TO 2: Drenching with Aspergillus niger @ 5 gm / plant + Source: NRCP, Solapur pseudomonas @ 20 gm + drenching with VAM @ 25 gm /plant	NRCP, Solapur						
					TO 3: Actino bacterial consortium: Actinoplus @ 50 gm /plant.	IIHR Bengaluru						
					TO 4: Liquid Bio fertilizer Consortium	IFFCO New Delhi						

**4. C2. Feedback on technologies assessed**

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of bio formulations for improving Quality and plant health management of Pomegranate	In progress	-

#### 4.C3. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1. Title of Technology Assessed : Assessment of bio formulations for improving Quality and plant health management of Pomegranate
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: -
6. Feedback on usefulness and constraints of technology: -

#### OFT4: Assessment of fodder crops as inter crop in coconut garden

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	
Fodder	Irrigation	Low yielding varieties, single cutting, Scarcity of fodder and no appropriate use of interspaces	Assessment of fodder crops as inter crop in coconut garden	5	Fodder Maize ( Ganga)	Farmer's practice				In progress			
					CO-4	UHS Bagalkot							
					DGG-1	IGFRI Dharwad							
					COFS -31	CPCRI Kasargod							

#### 4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of fodder crops as inter crop in coconut garden	In progress	-

#### 4.C3. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1. Title of Technology Assessed : Assessment of fodder crops as inter crop in coconut garden
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: -
6. Feedback on usefulness and constraints of technology : -

#### 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
					T.O.1 (Farmers practice)							
					T.O.2							
					T.O.3							

#### 4. D2. Feedback on technologies refined

Name of technology refined	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption

#### 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
6. Feedback on usefulness and constraints of technology

### PART V - FRONTLINE DEMONSTRATIONS

#### 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													
	Cereals	Irrigated	Kharif	Paddy	Gangavathi Sona	-	Introduction variety	<b>Demonstration of paddy variety Gangavathi Sona (2021-22)</b> Introduction of high yielding Gangavathi Sona Micronutrient application (ZN and Boran) Integrated pest management	4	4	1	9	1	9
	Millets													
	Millets	Rainfed	Kharif	Finger millet	KMR - 630	-	Introduction variety	<b>Demonstration of Finger millet variety KMR – 630 (2021-22)</b> *Use of short duration & blast resistant variety KMR -630 *Micronutrients (ZnSO <sub>4</sub> , 10 kg/ha ) *Machine harvest	4	4	0	10	4	6
	Vegetables	Irrigated	Rabi	Tomato	--	Arka Abedha	ICM	<b>Integrated Crop Management in Tomato (2021-22 )</b>	3	3	5	10	10	5

								<ul style="list-style-type: none"> <li>❖ Use of high yield Hybrid -Arka abedha</li> <li>❖ Foliar spray of Vegetable special</li> <li>❖ Application of Neem cake</li> <li>Need based Plant Protection Chemical</li> </ul>						
	Vegetables	Irrigated	Kharif	Chilli	--	KBCH-1	ICM	<p><b>Integrated Crop Management in chilli (2021-22 )</b></p> <ul style="list-style-type: none"> <li>• Use of high yield Hybrid –KBCH-1</li> <li>• Foliar spray of Vegetable special @ 5g / liter</li> <li>• Spray of Planofix (0.02%) for control of flower drop</li> <li>• Need based Plant Protection Chemical</li> <li>•</li> </ul>	2	2	2	8	8	2
	Vegetables	Irrigated	Kharif	Brinjal	Local	-	Demonstration of ACT	<p>Demonstration of Arka Actinoplus on growth and yield of Brinjal (2021-22 )</p> <ul style="list-style-type: none"> <li>• Seed treatment with ACT @10g / 100g seeds</li> <li>• Drenching with ACT @ 20g / lt near root zone for 10<sup>th</sup> day transplanted seedlings</li> <li>• spraying with vegetable special @ 3g / lt after 30 DAT</li> <li>• pheromone trap : 10 numbers / acre</li> <li>• Need based PP chemicals</li> </ul>	1.0	1.0	-	5	5	-
	Vegetables	Irrigated	Rabi	French Beans	--	Arka Arjuna	Inter cropping	<p><b>French Bean as an intercrop in younger Arecanut garden (2021-22 )</b></p> <ul style="list-style-type: none"> <li>• Use of Arka Arjun</li> </ul>	2.0	2.0	5	5	10	-

								<ul style="list-style-type: none"> <li>as a intercrop in Arecanut garden, which increases the soil fertility status</li> <li>• Seed treatment with Rhizobium</li> <li>• Vegetable Special- 2 gm /lit at flower initiation stage and regular 15 days interval</li> <li>• Need based Plant Protection Chemical</li> </ul>						
Vegetables	Irrigated	Rabi	French Beans	--	-	ICM	<p><b>Integrated Crop Management in French bean (2020-21)</b></p> <ul style="list-style-type: none"> <li>• Seed treatment with Rhizobium</li> <li>• Use of Arka microbial consortium: drenching @ 20 g/lit (10 DAS)</li> <li>• Foliar spray of Vegetable Special (2g/l) at flower initiation stage and regular 15 days interval</li> <li>• Neem soap : 7 g per lt</li> <li>• Need based Plant Protection Chemical</li> </ul>	2.0	2.0	2	3	5	-	
Vegetables	Irrigated	Rabi	Hebbal avare	HA-4	-	Inter cropping	<p><b>intercropping of Hebbal avare in younger Arecanut garden (2021-22 )</b></p> <ul style="list-style-type: none"> <li>• Hebbal avare as a intercrop in Arecanut garden</li> <li>• Seed treatment with Rhizobium</li> <li>• Need based Plant</li> </ul>	2.0	2.0	5	1	6	-	

								Protection Chemical						
	Vegetables	Irrigated	Rabi	French Beans	--	Arka Arjuna	Inter cropping	<b>French Bean as a intercrop in Coconut garden (2021-22)</b> Use of Arka Arjuna as a intercrop in coconut garden, which increases the soil fertility status Seed treatment with Rhizobium Vegetable Special- 2 gm /lit at flower initiation stage and regular 15 days interval Need based Plant Protection Chemical	2.0	2.0	0	10	10	0
	Flowers													
	Ornamental													
	Fruit	Irrigated	Perennial	Banana	Puttabale	--	INM	<b>Integrated Nutrient Management in Banana (Var. Puttabale) (2021-22)</b> ▶ Application of RDF NPK 180:108:225 NPK g/pl (three spilt doses), ▶ Use of Banana special – 5 spray @ 5 g/L, AMC and Neem cake ▶ Leaving One sucker per plant (More than 2 sucker in FP) ▶ Bunch feeding ( 500 g fresh cow dung+ 100 ml water+ 2.5 g urea + 2.5 g SOP) ▶ Plant Protection: Panama wilt & sigatoka disease – Carbendizim @3g/lt Propiconazole @ 1 ml/L	1	1	0	5	5	0





	Commercial													
	Medicinal and aromatic													
	Fodder	Rainfed	Perennial	Fodder-COFs-31	COFs-31	--	ICM	<b>Fodder var. COFS 31 for higher yield</b> Use of high yielding fodder variety CoFS 31	2	2	3	7	5	5
	Plantation													
	Plantation	Irrigated	Perennial	Coconut	-	-	INM	<b>Integrated nutrient management in Coconut (2021-22)</b> *Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, Zink sulphate @ 5g, MgSO <sub>4</sub> @ 500 g ) *Mucuna as intercrops which improve soil N content *Soil application of Neem cake @ 5 kg + <i>Trichoderma</i> and <i>Pseudomonas fluorescens</i> @ 100 g each / palm/ year	2	2	-	10	-	10
	Plantation	Irrigated	Perennial	Arecanut	Hirehalli local	--	ICM	<b>Integrated Crop Management in Arecanut 2020-21</b> *Soil test based nutrient application 100:40:140 g NPK/palm/yr *Application of Boron 30 g/palm/yr + MOP 230 g/palm/year for control of nut dropping and splitting *Soil application of	1	1	3	7	5	5

								Neem cake @ 3 kg + Trichoderma and Pseudomonas fluorescens @ 100g each / palm/ year * Cowpea as green manures, which improve soil fertility status *Plant Protection: Ganoderma wilt – drenching COC @ 3 g/						
	Fibre													
	Dairy	-	-	cow	Cross breed animals	-	Management of dairy cow during the transition phase	<b>Management of dairy cow during the transition phase through supplementation of Bypass Fat (2021-22)</b> 1. Supplementation of Rumen protected fat. 2. Supplementation of chelated Mineral mixture 3. Total Balanced ration	10 animals	10 animals	0	10	10	0
	Dairy	-	-	Heifers	Cross breed	-	Management of Anestrus	<b>Management of Anestrus in Heifers (2021-22)</b> ➤ Deworming using Albendazole bolus at the rate of 10 mg/kg body weight in two doses at an interval of 15 days ➤ Supplementation of chelated minerals @ 50 g/animal/day for the period of	20 animals	20 animals	0	20	20	0



	Ornamental fishes														
	Oyster mushroom														
	Button mushroom														
	Vermicompost														
	Sericulture														
	Apiculture														
	Implements														
	Others (specify)														
	composting methodology	-	Rabi	arecanut husk	-	-	composting	<p><b>Evaluation of composting methodology for areca husk(2021-22 )</b></p> <ul style="list-style-type: none"> <li>Layer-wise filling of arecanut wastes + other crop residues + Areca Husk decomposer @ 4 kg (Bio inoculants: <i>Pleurotus sajor caju</i> @ 2 kg + <i>Phanerochaete chrysosporium</i> @ 2 kg) + Urea @ 10 kg + SSP @ 10 kg + Green leaf manures (Pre-treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)</li> </ul>	5 units	5 units	-	5	5	-	

## 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												
	Pulses												
	Cereals	Irrigated	Kharif	Paddy	Gangavathi Sona	-	Introduction variety	<b>Demonstration of paddy variety Gangavathi Sona (2021-22)</b> Introduction of high yielding Gangavathi Sona Micronutrient application (ZN and Boran) Integrated pest management	Kharif 2021	H	M	L	Paddy
	Cereals												
	Millets	Rainfed	Kharif	Finger millet	KMR - 630	-	Introduction variety	<b>Demonstration of Finger millet variety KMR – 630 (2021-22)</b> *Use of short duration & blast resistant variety KMR -630 *Micronutrients (ZnSO <sub>4</sub> , 10 kg/ha ) *Machine harvest	Kharif 2021	H	M	L	Fingermillet
	Vegetables	Irrigated	Rabi	Tomato	--	Arka Abedha	ICM	<b>Integrated Crop Management in Tomato (2021-22 )</b> ❖ Use of high yield Hybrid -Arka abedha ❖ Foliar spray of Vegetable special ❖ Application of Neem cake Need based Plant Protection Chemical	Rabi 2021	H	M	L	Vegetable- Chilli

	Vegetables	Irrigated	Kharif	Chilli	--	KBCH-1	ICM	<p><b>Integrated Crop Management in chilli (2021-22 )</b></p> <ul style="list-style-type: none"> <li>• Use of high yield Hybrid –KBCH-1</li> <li>• Foliar spray of Vegetable special @ 5g / liter</li> <li>• Spray of Planofix (0.02%) for control of flower drop</li> <li>• Need based Plant Protection Chemical</li> </ul>	Rabi 2021	M	M	L	Cowpea
	Vegetables	Irrigated	Kharif	Brinjal	Local	-	Demonstration of ACT	<p>Demonstration of Arka Actinoplus on growth and yield of Brinjal (2021-22 )</p> <ul style="list-style-type: none"> <li>• Seed treatment with ACT @10g / 100g seeds</li> <li>• Drenching with ACT @ 20g / lt near root zone for 10<sup>th</sup> day transplanted seedlings</li> <li>• spraying with vegetable special @ 3g / lt after 30 DAT</li> <li>• pheromone trap : 10 numbers / acre</li> <li>• Need based PP chemicals</li> </ul>	Kharif 2021	M	M	M	Tomato
	Vegetables	Irrigated	Rabi	French Beans	--	Arka Arjuna	Inter cropping	<p><b>French Bean as an intercrop in younger Arecanut garden (2021-22 )</b></p> <ul style="list-style-type: none"> <li>• Use of Arka</li> </ul>	Rabi 2021	M	M	M	-

								<p>Arjun as a intercrop in Arecanut garden, which increases the soil fertility status</p> <ul style="list-style-type: none"> <li>• Seed treatment with Rhizobium</li> <li>• Vegetable Special- 2 gm /lit at flower initiation stage and regular 15 days interval</li> <li>• Need based Plant Protection Chemical</li> </ul>					
	Vegetables	Irrigated	Rabi	French Beans	--	-	ICM	<p><b>Integrated Crop Management in French bean (2020-21)</b></p> <ul style="list-style-type: none"> <li>• Seed treatment with Rhizobium</li> <li>• Use of Arka microbial consortium: drenching @ 20 g/lit (10 DAS)</li> <li>• Foliar spray of Vegetable Special (2g/l) at flower initiation stage and regular 15 days interval</li> <li>• Neem soap : 7 g per lt</li> <li>• Need based Plant Protection Chemical</li> </ul>	Rabi 2020	L	M	M	Cowpea
		Irrigated	Rabi	Hebbal avare	HA-4	-	Inter cropping	<p><b>intercropping of Hebbal avare in younger Arecanut garden(2021-22 )</b></p>	Rabi 2021	L	L	M	-



								<ul style="list-style-type: none"> <li>• Hebbal avare as a intercrop in Arecanut garden</li> <li>• Seed treatment with Rhizobium</li> <li>• Need based Plant Protection Chemical</li> </ul>					
	Vegetables	Irrigated	Rabi	French Beans	--	Arka Arjuna	Inter cropping	<p><b>French Bean as a intercrop in Coconut garden (2021-22)</b> Use of Arka Arjuna as a intercrop in coconut garden, which increases the soil fertility status Seed treatment with Rhizobium Vegetable Special- 2 gm /lit at flower initiation stage and regular 15 days interval Need based Plant Protection Chemical</p>	Rabi 2021	H	M	M	Cowpea
	Flowers												
	Ornamental												
	Fruit	Irrigated	Perennial	Banana	Puttabale	--	INM	<p><b>Integrated Nutrient Management in Banana (Var. Puttabale) (2021-22)</b></p> <ul style="list-style-type: none"> <li>➤ Application of RDF NPK 180:108:225 NPK g/pl (three spilt doses),</li> <li>➤ Use of Banana special – 5 spray @ 5 g/L, AMC and Neem cake</li> </ul>	Perennial	M	M	L	coconut

								<ul style="list-style-type: none"> <li>➤ Leaving One sucker per plant (More than 2 sucker in FP)</li> <li>➤ Bunch feeding ( 500 g fresh cow dung+ 100 ml water+ 2.5 g urea + 2.5 g SOP)</li> <li>➤ Plant Protection: Panama wilt &amp; sigatoka disease – Carbendizim @3g/lt Propiconazole @ 1 ml/L</li> </ul>					
mango	Raifed	Perennial	Mango	Alphanso	--	ICM	<p><b>Integrated Crop management in mango (Var. Alphanso) (2020-21)</b></p> <ul style="list-style-type: none"> <li>❖ Spraying 20 ppm NAA at pea size of fruits followed by 2% urea to reduce fruit drop</li> <li>❖ Application of Paclobutrazol drenching at 5 ml/ 10 liter of water for inducing regular bearing</li> <li>❖ Use of Mango special @ 5 g/L</li> <li>❖ Fruit fly traps - 20 No. /ha</li> </ul> <p>Need based PP chemical</p>	Perennial	M	M	L	Mango	
Fruit	Raifed	Perennial	Mango	Alphanso	--	ICM	<p><b>Enhancement of productivity through ICM in Mango variety (Var. Alphanso) (2021-22)</b></p> <p>*Application of Paclobutrazol drenching @ 5 ml/ 10 liter of</p>	Perennial	M	M	L	Mango	

								water for inducing regular bearing *Use of Mango special @ 5 g/L *Spraying 20 ppm NAA at pea size of fruits followed by 2% urea to reduce fruit drop *Plant Protection: powdery mildew - Carbendazim @ 1 g/L hopper- Imidachloprid @ 0.3 ml/L & Fruit fly – traps 20 No./ha					
	Spices and condiments												
	Commercial												
	Medicinal and aromatic												
	Fodder	Rainfed	Perennial	Fodder-COFs-31	COFs-31	--	ICM	<b>Fodder var. COFS 31 for higher yield</b>  Use of high yielding fodder variety CoFS 31	Perennial	M	M	L	Fodder
	Plantation												
	Plantation	Irrigated	Perennial	Coconut	-	-	INM	<b>Integrated nutrient management in Coconut (2021-22 )</b> *Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, Zink sulphate @ 5g,	Perennial	M	M	M	Coconut

								MgSO <sub>4</sub> @ 500 g ) *Mucuna as intercrops which improve soil N content *Soil application of Neem cake @ 5 kg + <i>Trichoderma</i> and <i>Pseudomonas fluorescens</i> @ 100 g each / palm/ year																
Plantation	Irrigated	Perennial	Arecanut	Hirehalli local	--	ICM	<b>Integrated Crop Management in Arecanut 2020-21</b>  *Soil test based nutrient application 100:40:140 g NPK/palm/yr *Application of Boron 30 g/palm/yr + MOP 230 g/palm/year for control of nut dropping and splitting *Soil application of Neem cake @ 3 kg + <i>Trichoderma</i> and <i>Pseudomonas fluorescens</i> @ 100g each / palm/ year * Cowpea as green manures, which improve soil fertility status *Plant Protection: Ganoderma wilt – drenching COC @ 3 g/	Perennial	M	L	L	Arecanut												
others																								
composting methodology	-	Rabi	arecanut husk	-	-	composting	<b>Evaluation of composting methodology for areca husk (2021-22)</b>  • Layer-wise filling of arecanut wastes + other crop residues + Areca Husk decomposer	Perennial	<b>Physico - Chemical properties of arecanut waste</b>															
									<table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Property</th> <th>Areca leaf</th> <th>Leaf sheath</th> <th>Areca husk</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>pH</td> <td>6.1 -6.50</td> <td>6 -6.50</td> <td>6.2 – 6.50</td> </tr> <tr> <td>2.</td> <td>EC</td> <td>1.53 – 1.75</td> <td>1.6 – 1.78</td> <td>1.68 – 1.88</td> </tr> </tbody> </table>	Sl. No.	Property	Areca leaf	Leaf sheath	Areca husk	1.	pH	6.1 -6.50	6 -6.50	6.2 – 6.50	2.	EC	1.53 – 1.75	1.6 – 1.78	1.68 – 1.88
Sl. No.	Property	Areca leaf	Leaf sheath	Areca husk																				
1.	pH	6.1 -6.50	6 -6.50	6.2 – 6.50																				
2.	EC	1.53 – 1.75	1.6 – 1.78	1.68 – 1.88																				

									@ 4 kg (Bio inoculants: <i>Pleurotus sajaj caju</i> @ 2 kg + <i>Phanerochaete chrysosporium</i> @ 2 kg) + Urea @ 10 kg + SSP @ 10 kg + Green leaf manures (Pre-treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)			3.	Total Organic carbon (%)	55 – 58	60 – 63	62 – 65
												4.	Nitrogen (%)	0.70	0.65	0.60
												5.	C : N Ration	82 – 84	96 - 98	110 – 120
												6.	Lignin (%)	36.20%	38.68	43 -44%
												7.	Cellulose (%)	37.50%	26.40	41 – 42%
												8.	Hemicellulose (%)	14-15%	16 – 17%	17 – 18%

## 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)		
							Demo					Gross Return	Net Return	BCR	Gross Return	Net Return	BCR
							H	L	A								
Oilseeds																	
Pulses																	
Cereals	<b>Demonstration of paddy variety Gangavathi Sona (2021-22)</b> Introduction of high yielding Gangavathi Sona Micronutrient application (ZN and Boran) Integrated pest management	Gangavathi Sona	-	Irrigated	10	4	56.00	49.00	50.50	41.50	21.68	1,15,500	60500	2.10	91300	85800	1.66
Millets	<b>Demonstration of Finger millet variety KMR – 630 (2021-22)</b> *Use of short duration & blast resistant variety KMR -630 *Micronutrients (ZnSO <sub>4</sub> , 10 kg/ha ) *Machine harvest	KMR -630	-	Rainfed	10	4	20.5	16.5	18.0	14.50	24.13	60125	35125	2.40	45500	20500	1.82

Vegetables	<b>Integrated Crop Management in Tomato(2021-22)</b> ❖ Use of high yield Hybrid - Arka abedha ❖ Foliar spray of Vegetable special ❖ Application of Neem cake Need based Plant Protection Chemical	--	Arka abedha	Irrigated	15	3	702	520	654	510	28.24	3,62,400	2,45,800	3.11	2,90,400	1,64,900	2.31
Vegetables	<b>Integrated Crop Management in chilli (2021-22)</b> <ul style="list-style-type: none"> <li>Use of high yield Hybrid –KBCH-1</li> <li>Foliar spray of Vegetable special @ 5g / liter</li> <li>Spray of Planofix (0.02%) for control of flower drop</li> <li>Need based Plant Protection Chemical</li> </ul>	-	KBCH-1	Irrigated	10	2.0	301	185	286	226	26.54	361600	267000	3.82	297600	198400	3.00
Vegetables	<b>Demonstration of Arka Actinoplus on growth and yield of Brinjal (2021-22 )</b> <ul style="list-style-type: none"> <li>Seed treatment with ACT @10g / 100g seeds</li> <li>Drenching with ACT @ 20g / lt near root zone for10<sup>th</sup> day transplanted seedlings</li> <li>spraying with vegetable special @ 3g / lt after 30 DAT</li> <li>pheromone trap : 10 numbers / acre</li> <li>Need based PP chemicals</li> </ul>	Local	-	Irrigated	5	1.0	385	326	354	292.1	21.11	459940	366290	4.91	277527	190627	3.19

Vegetables	<p><b>French Bean as an intercrop in younger Arecanut garden (2021-22)</b></p> <ul style="list-style-type: none"> <li>• Use of Arka Arjun as a intercrop in Arecanut garden, which increases the soil fertility status</li> <li>• Seed treatment with Rhizobium</li> <li>• Vegetable Special- 2 gm /lit at flower initiation stage and regular 15 days interval</li> <li>• Need based Plant Protection Chemical</li> </ul>	-	Arka Arjuna	Irrigated	10	2.0	French Beans yield 52.00	French Beans yield : 41.10	French Beans yield : 43.77	younger arecanut monocrop garden	-	1159809	60989	2.11	-	-	-
Vegetables	<p><b>Integrated Crop Management in French bean (2020-21)</b></p> <ul style="list-style-type: none"> <li>• Seed treatment with Rhizobium</li> <li>• Use of Arka microbial consortium: drenching @ 20 g/lit (10 DAS)</li> <li>• Foliar spray of Vegetable Special (2g/l) at flower initiation stage and regular 15 days interval</li> <li>• Neem soap : 7 g per lt</li> <li>• Need based Plant Protection Chemical</li> </ul>	-	-	Irrigated	10	2.0	151.84 q/ha	133.45 q/ha	144.52 q/ha	118.66	21.80	289036	210701	3.69	219747.8	147085.8	3.02

Vegetables	<b>intercropping of Hebbal avare in younger Arecanut garden(2021-22)</b> <ul style="list-style-type: none"> <li>• Hebbal avare as a intercrop in Arecanut garden</li> <li>• Seed treatment with Rhizobium</li> <li>• Need based Plant Protection Chemical</li> </ul>	HA-4	-	Irrigated	6	2.0	Results are in progress										
Vegetables	<b>French Bean as a intercrop in Coconut garden</b> <ul style="list-style-type: none"> <li>❖ Use of Arka Arjuna as a intercrop in</li> <li>❖ Seed treatment with Rhizobium</li> <li>❖ Vegetable Special- 2 gm /lit at flower</li> <li>❖ Need based Plant Protection Chemical</li> </ul>	-	Arka Arjuna	Irrigated	10	2.0	Coconut 8810 nuts/palm/yr	8680 nuts/palm/yr	8610 nuts/palm/yr	8650 nuts/palm/yr	Mono- cropping	207900	139100	3.02	129750	84150	2.84
							Beans 53.50 q/h	Beans 51.50 q/h	Beans 52.50 q/h	Mono- cropping							
Ornamental																	
Fruit	<b>Integrated Nutrient Management in Banana (Var. Puttabale) (2021-22)</b> <ul style="list-style-type: none"> <li>➤ Application of RDF NPK 180:108:225 NPK g/pl (three spilt doses),</li> <li>➤ Use of Banana special – 5 spray @ 5 g/L, AMC and Neem cake</li> <li>➤ Leaving One sucker per plant (More than 2 sucker in FP)</li> <li>➤ Bunch feeding ( 500 g fresh cow dung+ 100 ml water+ 2.5 g urea + 2.5 g SOP)</li> <li>➤ Plant Protection: Panama wilt &amp; sigatoka disease – Carbendizim @3g/lt Propiconazole @ 1 ml/L</li> </ul>	Puttabale	-	Irrigated	5	1.0	In progress (flowering and bunch feeding stage)										



Mango	<b>Integrated Crop management in mango (Var. Alphanso) (2020-21)</b> <ul style="list-style-type: none"> <li>❖ Spraying 20 ppm NAA at pea size of fruits followed by 2% urea to reduce fruit drop</li> <li>❖ Application of Paclobutrazol drenching at 5 ml/ 10 liter of water for inducing regular bearing</li> <li>❖ Use of Mango special @ 5 g/L</li> <li>❖ Fruit fly traps - 20 No. /ha</li> </ul> Need based PP chemical	Alphanso	--				110.6	82.5	104.6	80.2	30.4	1,51,200	1,05,600	3.32	1,26,880	78,380	2.62	
Mango	<b>Enhancement of productivity through ICM in Mango variety (Var. Alphanso) (2021-22)</b> <ul style="list-style-type: none"> <li>❖ Spraying 20 ppm NAA at pea size of fruits followed by 2% urea to reduce fruit drop</li> <li>❖ Application of Paclobutrazol drenching at 5 ml/ 10 liter of water for inducing regular bearing</li> <li>❖ Use of Mango special @ 5 g/L</li> <li>❖ Fruit fly traps - 20 No. /ha</li> </ul> Need based PP chemical	Alphanso	--	Raifed	15	3												In progress (flowering stage)
Spices and condiments																		
Commercial																		
Fibre crops like cotton																		
Medicinal and aromatic																		
Fodder	<b>Fodder var. COFS 31 for higher yield</b> <ul style="list-style-type: none"> <li>❖ Use of high yielding fodder variety CoFS 31</li> </ul>	Fodder	--	Raifed	10	2	-	-	165	45	26.6	-	-	-	-	-	-	-

Plantation	<p><b>Integrated nutrient management in Coconut (2021-22)</b>                  *Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, Zink sulphate @ 5g, MgSO<sub>4</sub> @ 500 g )                  *Mucuna as intercrops which improve soil N content                  *Soil application of Neem cake @ 5 kg + <i>Trichoderma</i> and <i>Pseudomonas fluorescens</i> @ 100 g each / palm/ year</p>	-	-	Irrigated	10	2.0	9000 nuts/ha	8562 nuts/ha	8781 nuts/ha	7031 nuts/ha	28	1,37,300	84,300	2.59	1,04,166	<b>58,833</b>	<b>2.30</b>																																	
Arecanut	<p><b>Integrated Crop Management in Arecanut (2020-21)</b>                  *Soil test based nutrient application 100:40:140 g NPK/palm/yr                  *Application of Boron 30 g/palm/yr + MOP 230 g/palm/year for control of nut dropping and splitting                  *Soil application of Neem cake @ 3 kg + <i>Trichoderma</i> and <i>Pseudomonas fluorescens</i> @ 100g each / palm/ year                  * Cowpea as green manures, which improve soil fertility status                  *Plant Protection: Ganoderma wilt – drenching COC @ 3 g/</p>	Hirehalli local	-	Irrigated	10	2	17.50	12.75	17.27	13.75	25.60	4,59,875	3,19,375	3.27	3,73,750	2,31,850	2.63																																	
Fibre																																																		
Others (pl.specify)	<p><b>Evaluation of composting methodology for areca husk (2021-22)</b>                  • Layer-wise filling of arecanut wastes + other crop residues + Areca Husk decomposer @ 4 kg (Bio inoculants: <i>Pleurotus sajor caju</i> @ 2 kg + <i>Phanerochaete chrysosporium</i> @ 2 kg) + Urea @ 10 kg + SSP @ 10 kg + Green leaf manures (Pre-treatment with lime @ 5kg/t in 100 ltr. of water for 24 hours)</p>	-	-	-	5 units	5 units	<p style="text-align: center;"><b>Nutrient content of the composted manure</b></p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>C:N Ratio</th> <th>N (%)</th> <th>P (%)</th> <th>K (%)</th> <th>Ca (%)</th> <th>Mg (%)</th> <th>OC (%)</th> <th>Lignin (%)</th> <th>Cellulose (%)</th> <th>Hemi Cellulose (%)</th> </tr> </thead> <tbody> <tr> <td>Areca husk compost</td> <td>20:1</td> <td>0.98</td> <td>0.62</td> <td>1.95</td> <td>2.67</td> <td>1.05</td> <td>26.75</td> <td>43</td> <td>41</td> <td>17</td> </tr> <tr> <td>FYM</td> <td>10:1</td> <td>0.56</td> <td>0.25</td> <td>0.37</td> <td>2.1</td> <td>0.95</td> <td>10.8</td> <td>16</td> <td>14</td> <td>5</td> </tr> </tbody> </table>											Sl. No.	C:N Ratio	N (%)	P (%)	K (%)	Ca (%)	Mg (%)	OC (%)	Lignin (%)	Cellulose (%)	Hemi Cellulose (%)	Areca husk compost	20:1	0.98	0.62	1.95	2.67	1.05	26.75	43	41	17	FYM	10:1	0.56	0.25	0.37	2.1	0.95	10.8	16	14	5
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nutrition garden	Establishment of nutrition garden*, Nutrition education						
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\* 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

**\*Nutri garden to farm families (2020-21):**

**Details of the Farm families**

DETAILS OF FAMILY	
Adult Male (No.)	51
Adult Female No.	51
Boys (No.) <18 yr	10
Girls (No.) <18 yr	9
<b>TOTAL</b>	<b>121</b>

**Occupation (family members above 21 years)**

OCCUPATION (family members above 21 years)	
Agriculture (No. of Members)	86
Government Job (No. of Members)	0
Private Job (No. of Members)	15
<b>TOTAL</b>	<b>101</b>

**Family Type**

FAMILY TYPE	
Nuclear	28
Joint	1
Extended	1
<b>TOTAL</b>	<b>30</b>

**Education level of the family**

Education level of the family	
Graduates (No.)	11
PU/Diploma (No.)	19
High school (No.)	57
Primary and Middle school	27
Illiterates (No.)	7
<b>TOTAL</b>	<b>121</b>

**Family Expenditure pattern (Rs./month)**

FAMILY EXPENDITURE PATTERN	(Rs./month)
Food	2668.30
Education	1947.22
Health and Medicine	1537.50
Fruits and vegetables	906.89
Others	0
<b>TOTAL</b>	<b>7059.91</b>

**Accessibility To Health Services**

ACCESSIBILITY TO HEALTH SERVICES	
Distance to PHC (Km)	5
Visits to PHC (No./month)	10

### Crops/Livestock Produced In Nutri Garden – Kharif

<b>Details</b>	<b>Kharif</b>	<b>Rabi</b>	<b>Summer</b>	<b>Total (Kgs)</b>
<b>Mandays/ month</b>	5.33			
<b>Quantity of GLV Produced (No. of Bundles)</b>	534	612	666	1812
<b>Quantity of other vegetables Produced (Kg)</b>	1177	1094	1699	3970
<b>Quantity of Fruits Produced (Kg)</b>	-	-	-	-
<b>Quantity of Other items produced</b>	30	35	43	108

**ADEQUACY OF FOOD INTAKE BEFORE and AFTER NUTRI GARDEN**

	RDA (g/ml)	Before		After		Per cent increase
		Mean±SD	% adequacy	Mean±SD	% adequacy	
<b>CEREALS</b>	330 g	287.5±39.73	87.12	302.06±32.46	91.51	4.39
<b>PULSES</b>	75 g	59.5±15.83	77.55	61.66±12.64	80.18	2.63
<b>MILK AND ITS PRODUCTS</b>	300 ml	197.66±100.29	70.97	232.2±97.46	76.04	5.07
<b>ROOTS AND TUBERS</b>	200g	51.56±29.90	34.85	59.66±42.20	38.83	3.98
<b>GLV</b>	100g	91.83±32.94	88.5	89.00±23.79	90.66	2.16
<b>OTHER VEGETABLES</b>	200g	130.50±48.16	66.08	126.03±39.90	73.66	7.58
<b>FRUITS</b>	100g	62.16±11.93	62.03	66.26±13.22	66.26	4.23
<b>SUGARS</b>	30g	38.43±30.11	88.44	27.26±7.92	84.97	-3.47
<b>FATS</b>	25g	36.26±29.06	99.06	23.33±3.21	90.33	-8.73

**Food Habits of farm families**

<b>Particulars</b>	<b>Food Habits (Before)</b>	<b>Food Habits (AFTER)</b>
VEG (No.)	30	30
NON VEG (No.)	-	-
Consumption of NonVeg (times/ month)	-	-
Meals /day (No.)	3	3

**Anthropometric details of family members before and after intervention of the Nutri garden**

<b>Anthropometric details</b>	<b>Before</b>		<b>After</b>	
	<b>BMI</b>	<b>Per cent</b>	<b>BMI</b>	<b>Per cent</b>
BMI <18.5 (Under weight)	18	17.82	8	7.92
BMI 18.5-22.9 (Normal)	40	39.6	60	60
BMI 23.0-24.9 (Over weight)	26	25.74	22	21.78
BMI 25.0-29.9 (Obese G-I)	14	13.86	10	9.90
BMI >29.9 (Obese G-II )	3	2.97	1	1
<b>Total</b>	<b>101</b>		<b>101</b>	

\*Nutri garden to farm families (2021-22): In progress

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

Title of FLD	Data on other parameters in relation to technology demonstrated		
	Parameter with unit	Demo	Check
Demonstration of paddy variety Gangavathi Sona (2021-22)	Plant Height (cm)	95	80
	No. of Tillers / plant	35	28
	Blast incidence %	3.0	6.5
	Sheath blight (%)	2.5	4.5
	stemborer damage (%)	5.5	12.5
Demonstration of Finger millet variety KMR – 630 (2021-22)	Plant height (cm)	80	70
	No. of Tillers / plant	10	7
	No. of fingers / ear head	8	5
	Blast incidence %	3.50	6.5
Integrated Crop Management in Tomato(2021-22)	Plant height (cm)	84	78
	No. of fruits / plant	86	79
	Days taken for flowering	49	47
	Days taken for harvesting	78	73
	Leaf curling	2.6	9.24
	Blight	2.1	12.20
	Bacterial wilt	1.20	6.5
Integrated Crop Management in chilli(2021-22)	No. of fruits / plant	231	204
	Fruit length (cm)	10.5	9.0
	Fruit girth (cm)	1.10	1.3
	Fruit weight/plant (gm)	1060	895
French Bean as a intercrop in Coconut garden (2021-22)	Beans Plant height (cm)	55.04	Mono-cropping no beans
	Beans No. of branches	12	
	Beans No. of pickings	03-04	
	Beans pod length (cm)	16.8	
Integrated crop management in French bean (2020-21)	Beans Plant height (cm)	52.48	39.46
	Beans No. of branches	12	8
	Beans No. of pickings	3 to 4	03
	Beans pod length (cm)	17.13	11.34

## 5. B2. Feedback on technologies demonstrated:

Name of technology demonstrated	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Demonstration of paddy variety Gangavathi Sona	Variety resistant to blast and salt tolerant	Non availability of seeds under subsidized rate









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. B6. Feedback on fisheries technologies demonstrated**

Name of fisheries technology demonstrated	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption

**5.B.7. Other enterprises**

Enterprise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area {m <sup>2</sup> }	Name of the parameter with unit	Yield			% Increase	*Economics of demonstration (Rs./unit) or (Rs./m2)			*Economics of check (Rs./unit) or (Rs./m2)				
						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)	EDP Programme-Coconut : Value Addition, Branding and Market Linkage	-	1	1SHG	BCR, Consumer acceptability and Net returns	-	-	-	-	71000	49000	3.33	16400	7800	1.90		

	EDP Programme-Tamarind : Value Addition, Branding and Market Linkage	-	1	1SHG	In progress										
--	--	---	---	------	-------------	--	--	--	--	--	--	--	--	--	--

\* 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
consumer acceptability	<b>Particular</b>	<b>No. (N-100)</b>	<b>%</b>	-
	Liked	85	85.00	
	Disliked	1	1.00	
	Niether liked/Nor disliked	14	14.00	

**5. B8. Feedback on enterprises demonstrated**

Name of enterprise demonstrated	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
EDP Programme-Coconut : Value Addition, Branding and Market Linkage	Products are very tasty and healthy with regards to constraints farm women opined that, the availability of small scale machines for chips making at local level is very difficult	Increase in the income by 6 times

**5.B.9. Farm implements and machinery : Nil**

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. B10. Feedback on farm implements demonstrated**

Name of farm	Useful characters as well as constraints of technology	Socio-economic as well as





**7.A.. Training of Farmers and Farm Women including sponsored training programmes (On campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop Production</b>										
Weed Management	1	17	8	25	13	6	19	30	14	44
Resource Conservation Technologies	1	33	9	42	6	7	13	39	16	55
Cropping Systems										
Crop Diversification										
Integrated Farming	2	56	22	78	31	12	43	87	34	121
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs	1	28	6	34	11	3	14	39	9	48
Others (pl.specify)										
<b>Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high volume crop	2	36	22	58	26	12	38	62	34	96
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
<b>b) Fruits</b>										
Training and Pruning	1	35	6	41	15	4	19	50	10	60





Post harvest technology and value addition										
Others (pl.specify)										
<b>Soil Health and Fertility Management</b>										
Soil fertility management	2	31	4	35	8	3	11	39	7	46
Integrated water management										
Integrated nutrient management	4	88	50	138	48	25	73	136	75	211
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency	1	11	1	12	7	3	10	18	4	22
Balanced use of fertilizers	1	8	1	9	7	4	11	15	5	20
Soil and water testing	2	25	17	42	11	7	19	36	24	60
Others (pl.specify)										
<b>Livestock Production and Management</b>										
Dairy Management	2	38	9	47	11	7	18	49	16	65
Poultry Management	1	7	8	15	4	4	8	11	12	23
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	14	2	16	10	0	10	24	2	26
Animal Disease Management										
Feed and Fodder technology	1	17	3	20	4	1	5	21	4	25
Production of quality animal products										
Others (pl.specify)										
<b>Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	2	10	67	77	7	41	48	17	5	125
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking	1		37	37		3	3		40	40





Mobilization of social capital										
Entrepreneurial development of farmers/youths	2	67	5	72	17	1	18	84	6	90
Others (pl.specify)										
<b>Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
<b>TOTAL</b>	<b>47</b>	<b>1055</b>	<b>508</b>	<b>1563</b>	<b>397</b>	<b>254</b>	<b>652</b>	<b>1452</b>	<b>659</b>	<b>2214</b>





Post harvest technology and value addition										
Others (pl.specify)										
<b>Soil Health and Fertility Management</b>										
Soil fertility management	2	51	7	58	7	5	12	58	12	70
Integrated water management										
Integrated nutrient management	6	71	50	121	21	38	59	92	88	180
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops	1	21	8	29	8	3	11	29	11	40
Nutrient use efficiency	1	19	1	20	11	1	12	30	2	32
Balanced use of fertilizers	2	40	3	43	17	-	17	57	3	60
Soil and water testing										
Others (pl.specify)										
<b>Livestock Production and Management</b>										
Dairy Management	3	51	2	53	13	9	22	64	11	75
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	11	12	23	1	1	2	12	13	25
Animal Disease Management										
Feed and Fodder technology	1	18	8	26	8	2	10	26	10	36
Production of quality animal products										
Others (pl.specify)										
<b>Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	6	12	30	42	9	20	29	21	50	71
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking	1	-	39	39	-	6	6	-	45	45









<b>TOTAL</b>	<b>38</b>	<b>571</b>	<b>259</b>	<b>790</b>	<b>170</b>	<b>115</b>	<b>286</b>	<b>741</b>	<b>374</b>	<b>1115</b>
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Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
Soil testing and INM practices	1	13	-	13	2	-	2	15	0	15
<b>TOTAL</b>	<b>1</b>	<b>13</b>	<b>-</b>	<b>13</b>	<b>2</b>	<b>-</b>	<b>2</b>	<b>15</b>	<b>0</b>	<b>15</b>





**7.E.Trainingprogrammes for Extension Personnel including sponsored training programmes (on campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management	2	70	17	87	21	7	28	91	24	115
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing	1	-	39	39	-	06	06	-	45	45
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application	1	38	1	39	2	3	5	40	4	44
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
<b>Total</b>	<b>4</b>	<b>108</b>	<b>57</b>	<b>165</b>	<b>23</b>	<b>16</b>	<b>39</b>	<b>131</b>	<b>73</b>	<b>204</b>



**7.F. Training programmes for Extension Personnel including sponsored training programmes (off campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)production technology in plantation crops	1	31	8	39	4	4	8	35	12	47
<b>Total</b>	<b>1</b>	<b>31</b>	<b>8</b>	<b>39</b>	<b>4</b>	<b>4</b>	<b>8</b>	<b>35</b>	<b>12</b>	<b>47</b>

### 7.G. Sponsored training programmes conducted

S.No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>1</b>	<b>Crop production and management</b>										
1.a.	Increasing production and productivity of crops	6	180	50	230	40	30	70	220	80	300
1.b.	Commercial production of vegetables										
<b>2</b>	<b>Production and value addition</b>										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops										
<b>3.</b>	<b>Soil health and fertility management</b>	1	15	-	15	2	-	2	15	-	15
<b>4</b>	<b>Production of Inputs at site</b>										
<b>5</b>	<b>Methods of protective cultivation</b>										
<b>6</b>	<b>Others (pl.specify)</b>										
<b>7</b>	<b>Post harvest technology and value addition</b>										
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
<b>8</b>	<b>Farm machinery</b>										
8.a.	Farm machinery, tools and implements										
8.b.	Others (pl.specify)										
<b>9.</b>	<b>Livestock and fisheries</b>										
<b>10</b>	<b>Livestock production and management</b>	1	-	20	20	-	6	6	-	26	26
10.a.	Animal Nutrition Management										
10.b.	Animal Disease Management										
10.c.	Fisheries Nutrition										
10.d.	Fisheries Management										
10.e.	Others (pl.specify)										
<b>11.</b>	<b>Home Science</b>										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										
11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
<b>12</b>	<b>Agricultural Extension</b>										
12.a.	CapacityBuilding and Group Dynamics										
12.b.	Others (pl.specify)										
	<b>Total</b>	<b>8</b>	<b>195</b>	<b>70</b>	<b>265</b>	<b>42</b>	<b>36</b>	<b>78</b>	<b>235</b>	<b>106</b>	<b>341</b>

#### Details of sponsoring agencies involved

1. National commission for women
2. Coconut Development Board
3. STRY, MANAGE





## PART VIII – EXTENSION ACTIVITIES

### 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
Advisory Services	2057	1800	181	1981	30	20	50	11	10	21
Farmers visit to KVK	810	408	108	516	30	20	50	-	-	-
Lectures delivered as resource persons	137	1700	400	2100	240	115	355	300	57	357
Diagnostic visits	32	250	50	300	5	5	10	-	-	-
Field Day	14	510	59	759	30	20	50	15	7	22
Group meetings	26	290	100	390	90	40	130	3	2	5
Kisan Ghosthi	-	-	-	-	-	-	-	-	-	-
Film Show	41	600	106	706	20	30	50	-	-	-
Self Help Group Conveners meetings	12	74	206	280	10	26	36	1	3	4
Mahila Mandals Conveners meetings	4	-	107	107	-	14	14	--	4	4
Kisan Mela	-	-	-	-	-	-	-	-	-	-
Exhibition	4	1050	240	1290	110	40	150	30	20	50
Scientific visit to farmers field	108	913	211	1114	40	35	75	10	5	15
Soil health Camp	2	67	13	80	10	-	10	6	-	6
Animal Health Camp	6	490	20	510	35	35	70	-	-	-
plant health camps	-	-	-	-	-	-	-	-	-	-
Farm Science Club Conveners meet	-	-	-	-	-	-	-	-	-	-
Ex-trainees Sammelan	-	-	-	-	-	-	-	-	-	-
farmer sammelans	17	280	35	315	29	11	40	13	2	15
workshops	4	142	28	170	16	2	18	2	0	2
Method Demonstrations	26	617	293	910	120	61	181	3	2	5
Celebration of important days (specify)	18	617	293	910	164	54	218	19	12	31
special day celebration	4	180	42	222	28	18	46	8	7	15
Exposure visit	6	50	35	85	18	22	40	28	22	50
Others, specify	-	-	-	-	-	-	-	-	-	-
RSK visit	30	70	50	130	20	30	50			
Video conference	12	80	20	100	35	35	70			
<b>Total</b>	<b>3358</b>	<b>10108</b>	<b>2577</b>	<b>12875</b>	<b>1045</b>	<b>598</b>	<b>1643</b>	<b>449</b>	<b>153</b>	<b>602</b>

### 8.2 Other extension activities like print and electronic media etc.

Sl. No.	Type of media/activity	Number of activities/Number
1	Popular articles	-
2	Newspaper coverage	36

3	Extension Literature	12
4	Radio Talks	4
5	TV Talks	6
6	CD/DVD/Video clips	45
7	Animal health camps (no. of animal treated)	350
8	Others, please specify	-
	<b>Total</b>	<b>453</b>

## **PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIAL**

### **9.A. Production of seeds by the KVKs**

<b>Crop category</b>	<b>Name of the crop</b>	<b>Name of the Variety</b>	<b>Quantity of seed (q)</b>	<b>Value (Rs)</b>	<b>Number of farmers to whom provided</b>
Cereals (crop wise)	Ragi	MR-6	25	-	-
	Saame	OLM- 203	6	-	-
Oilseeds	-	-	-	-	-
Pulses	Redgram	BRG-1	4	-	-
Commercial crops	-	-	-	-	-
Vegetables	-	-	-	-	-
Flower crops	-	-	-	-	-
Spices	-	-	-	-	-
Fodder crop seeds	-	-	-	-	-
Fiber crops	-	-	-	-	-
Forest Species	-	-	-	-	-
Others (specify)	-	-	-	-	-
<b>Total</b>			<b>35</b>		

### **9.B. Production of hybrid seeds by the KVKs : Nil**

<b>Crop category</b>	<b>Name of crop</b>	<b>Name of the hybrid</b>	<b>Quantity of seed (q)</b>	<b>Value (Rs)</b>	<b>Number of farmers to whom provided</b>
<b>Total</b>					

**9.C. Production of planting material by the KVKs**

Crop category	Name of the crop	Variety	Number	Value (Rs.)	Number of farmers to whom provided
Commercial	-	-	-	-	-
	-	-	-	-	-
Vegetable seedlings					
	Drumsick	bhagya	800	8000	
Fruits	Papaya	redlady	125	2250	
Ornamental plants	-	-	-	-	
Medicinal and Aromatic	-	-	-	-	
Plantation	Arecanut	hirehally local	4000	-	
	Coconut	Tiptur tall	700	-	
Spices	-	-	-	-	
Tuber	-	-	-	-	
Fodder crop saplings	-	-	-	-	
Forest Species	-	-	-	-	
Others(specify)	-	-	-	-	
<b>Total</b>					

**9.D. Production of hybrid planting materials by the KVKs: Nil**

Crop category	Name of crop	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers to whom provided
<b>Total</b>					

**9.C. Production of Bio-Products: Nil**

	Name of the bio-product	Quantity (q)	Value (Rs.)	Number of farmers to whom provided
<b>Bio Products</b>				
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others (specify)				
<b>Total</b>				

**9.D. Production of livestock: Nil**

Particulars of Livestock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
<b>Dairy animals</b>				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
<b>Poultry</b>				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
<b>Piggery</b>				
Piglet				
Others (Pl. specify)				
<b>Fisheries</b>				
Fingerlings				
Others (Pl. specify)				
<b>Total</b>				



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

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

(i) KVK Newsletter:

Date of start: 2013

Periodicity: 3 months

Copies printed in each issue:-

(ii) Summary of Literature developed/published

<b>Item</b>	<b>Number</b>
Research papers- International	-
Research papers- National	-
Technical reports	6
Technical bulletins	-
Popular articles - English	-
Popular articles – Local language	6
Extension literature	20
Others if any	-

(iii) Details of Literature developed/published

Please provide the details of above publication in the following format:

1. Research articles in journals: Complete citation indicating authors, year of publication, title of publication, journal name, volume and page number in sequence.: -

2. Technical Reports/ bulletins: Authors name, Title of the technical report, name of publishing KVK, number of pages.: -

All Staff, (2021) 14<sup>th</sup> SAC report, Krishi Vigyan Kendra, Tumakuru, 53p.

All staff (2021) Annual Report- 2020, Krishi Vigyan Kendra, Tumakuru, 153p.

All staff (2021) Action Plan report- 2021-22, Krishi Vigyan Kendra, Tumakuru, 58p.

All staff (2021) Annual Report- 2020 to DE office in local and english, Krishi Vigyan Kendra, Tumakuru, 45p.

All staff (2021) staff database report, Krishi Vigyan Kendra, Tumakuru, 15p.

All staff (2021) report of coffee table, Krishi Vigyan Kendra, Tumakuru, 10p.

3. Popular articles: Authors name, Title of the article, date of publication, Name of the newspaper/magazine, page no.: -

4. Extension literature; Authors name, month and year of publication, Title of extension literature like folders, pamphlets etc., name of publishing KVK, number of pages.

**10.B. Details of Electronic Media Produced**

S. No.	Type of media	Title	Details
1	CD / DVD	1	
2	Mobile Apps	-	
3	Social media groups with KVK as Admin	What's app	
4	Facebook account name	KVK Tumkur	
5	Instagram account name	-	
6	Others if any		

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

This will be considered only with suitable photos for further reporting/reference.

The Broad outline for the case study may be

**1. Chilli (*Capsicum annuum* L.)** is an important spice crop cultivated all season of the year in Tumkuru district, which gives good returns to the farmers. Krishi Vigyan Kendra, Konehalli, Tiptur conducted frontline demonstrations at farmers' field during the year 2016-17. The main objective of frontline demonstration is to demonstrate newly released crop production and protection technologies and its management practices at the farmer's field under different agro-climatic regions and farming situations, and also convincing farmers and extension functionaries together about the chilli production technologies for further wide scale diffusion. Keeping in view of an effective extension approach of frontline demonstrations for dissemination of chilli production technology, its impact of FLDs conducted to be assessed.

**Title: Integrated crop management in green Chilli (*Capsicum annuum* L.)**

**Background:** The frontline demonstrations were conducted on integrated crop management (ICM) in green chilli at farmer's field of Mr. Ramesh S. during the year 2016-17. Mr. Ramesh S. is a progressive farmers of Karikere village, aged 44 year having regular attending training programme, Krishimela, group discussion, meeting organised/ conducted by KVK, Konehalli and Dept. of Horticulture. He is also growing various vegetables like tomato, brinjal, chilli but was getting very low yield and low income.

**Technology intervention: Demonstrated package of practices and farmers practice for ICM in green chilli**

Particulars	Frontline demonstration (Demonstrated package)	Farmers practice (Local check)
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Particulars	Frontline demonstration (Demonstrated package)	Farmers practice (Local check)
Selection of variety /hybrid	Arka Meghana – Hybrid variety, tolerance to sucking pest and viral disease	Local or unknown private variety, no information
Seed treatment	Seed treated with fungicide Carbendizim	Not followed
Pro-tray method of raising the seedling in the nursery	Pro-tray method of raised seedling in shadenet house with Nylon mesh and selected good quality seedling	Pro-tray method of raised seedling in shadenet house and selected unknown poor quality seedling
Spacing	75 cm x 45 cm	75 cm x 60 cm
Application of farm yard manure	Applied 25 t/ha FYM before 3 week of transplanting	Applied 3 tractor load FYM (4-5 t/tractor load) during ridges and furrow preparation (2-3 day before transplanting)
Application of recommended dose of fertilizers	150 kg N + 75 kg P <sub>2</sub> O <sub>5</sub> + 75 kg K <sub>2</sub> O per ha ( 50 % NPK at the time of transplanting and remaining 50 % NPK applied at 6 week after planting)	After transplanting, applied 17:17:17 NPK + 20:20:0 NPK mixed chemical fertilizer (Approx. 10-12 g/plant ) 3 – 4 times during crop period
Irrigation	Drip or furrow method of irrigation once in 3-5 days depend upon soil condition	Furrow method of irrigation once/twice in a week
Weed management	Pre-emergence herbicide - Butachlor @1.5 L/ha and hand weeding	Hand weeding 3 to 4 times
Use of growth regulator for control of flower drops	Sprayed with 50 ppm NAA (Planofix)	Not followed
Plant protection measures to control pest and diseases	Need based application for control: Aphids and Thrips – Sprayed Diamethoate (30 EC) @1.7 ml/L of water. Spayed Dicofol @ 2.5 ml/L of water at 7 <sup>th</sup> and 11 <sup>th</sup> week after transplanting for control of mites. Control of powdery mildew - Hexaconazol @ 0.5ml/L of water. Fruit rot – Carbondizim @ 1 g/L of water. Leaf curling – Imidaclopride @ 0.3 ml/L of water.	Not followed, irrespective of disease and pest, used plant protection chemical combined together with growth regulator without knowing compatibility of chemicals and not identified pest and disease for spraying.
Harvesting	Manual	Manual
Yield of Green chilli	23.75 t/ha	18.50 t/ha

### Impact of ICM on yield of green chilli:

The information regarding the impact of integrated crop management on yield of green chilli through frontline demonstration are presented in Table. The data revealed that the increased in yield of green chilli per hectare by 28.38 percent in FLD plots. The yield of green chilli was significantly differences before and after conduct of FLD. It means that even after FLD, there was wider adoption of demonstrated technologies.

### Yield of green chilli before and after frontline demonstration

Average yield of green chilli (t/ha)		Per cent increased in yield
Before FLD (Farmers practice)	After FLD (Demonstrated production)	
18.50 t/ha	23.75 t/ha	28.38

### Economics of green chilli production:

The economic impact of demonstrated production practices of green chilli was worked out by calculating total cost of cultivation, gross return, net return and B:C ratio (BCR) of before and after frontline demonstrated plot. Total cost of cultivation was calculated by total sum of expenditure of land preparation, seed, manure and fertilizers, weeding, plant protection measures, irrigation, labour component and harvesting. The data revealed that yield of green chilli was obtained 18.50 t/ha before FLD and 23.75 t/ha after FLD. The farmers sold green chilli Rs. 1000 per quintal at farmer field and base on that profitability was calculated. Which shows that net returns Rs. 1,06,500/ha from green chilli before FLD, while the net returns Rs. 1,55,940/ha from green chilli after FLD. The B:C ratio for before FLD was 2.36, which was increased to 2.91 after FLD. It was evident from the results that B:C ratio of green chilli in FLD was higher than before FLD. This might be due to higher adoption of all the package of practices recommended for green chilli production in the region. However, increase in B:C ratio after FLD plot was due to adoption of production technology from 66.33 per cent to 93.33 per cent. This might be due to good extension contact by FLD farmers with the scientist and extension workers.

### Economics of green chilli production before and after frontline demonstration

Sl. No.	Particular	Before FLD	After FLD
1.	Cost of cultivation (Rs/ha)	78,500	81,560
2.	Yield of green chilli (t/ha)	18.50	23.75
3.	Gross Return (Rs/ha)	1,85,000	2,37,500
4.	Net Return (Rs/ha)	1,06,500	1,55,940

5.	B:C ratio	2.36	2.91
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**Conclusion:** The effective changing of farmers towards the adoption of integrated crop management in green chilli through frontline demonstration. The most of the farmers became aware about recommended package of practices for production of chilli crop after conducting the frontline demonstration at farmer's field. The more number of farmers were found to increased in adoption per cent of important package of practices such as use of growth regulator for control of flower drops, recommended spacing, plant protection measures to control pest and diseases, application of recommended fertilizer dose and selection of quality seedling from nursery after FLD as compare to before FLD. Yield of green chilli, net return and B:C ratio were found to increased in demonstrated plot as compared to farmers practice. The adoption of package of practices for production of green chilli even though after FLD programme, which shows positive impact of integrated crop management in green chilli through adoption of demonstrated technology. The concept of frontline demonstration may be applied to all farmers including progressive farmers for speedy and wider dissemination of the recommended practices to other members of the farming community.

## **2. Title: Assessment of Soil test based nutrient recommendations adopted by farmers of cluster villages of Tiptur Taluk, Tumkur district**

Background: Soil is the basis for food, feed, fuel and fiber production and for services to ecosystems and human well being. It is the reservoir for at least a quarter of global biodiversity and therefore requires the same attention as above ground biodiversity. The International Union of Soil sciences(IUSS) in 2002, made a resolution proposing the 5<sup>th</sup> December as ‘ world soil day’ to celebrate the importance of soil as a critical importance in our lives. Government of India has also gave more importance to soil and its management and come out with Soil Health Card Mission on 17<sup>th</sup> February, 2015 to issue Soil Health Cards to all the farmers of the Country to focus on management of soil health.

Technology Intervention: On the Occasion of International soil day on 5<sup>th</sup> December 2016, KVK has issued 289 Soil Health Cards after analysis of major and micro- nutrients based on the grid of 2.5 ha for irrigated and 10 ha for rainfed areas to S. Ramanahalli, Patrehalli and Lakkihalli villages (Honnavalli Cluster) of Tiptur taluk, Tumkur district. GPS readings and other general details of farmers are collected from each and every farm holdings in that grid area. Soil was analyzed for both major and micro nutrients at KVK Laboratory by using standard procedures. Samples were analyzed for pH, electrical conductivity, organic carbon status, available nitrogen, phosphorous and potash in KVK, Konehalli and secondary & micro nutrients were analyzed at KVK Hirehalli. Soil health cards were issued with soil test based fertilizer recommendations to their proposed crops.

Impact: Before intervention i.e., issuing of soil health cards majority of the farmers in the village are unaware of importance of soil sampling, soil testing and use of soil test based fertilizers to crops. They were blindly applying bags of urea, DAP fertilizers to their crops without knowing the soil health status which lead to increase in cost of cultivation, deterioration of soil health, secondary and micronutrient deficiencies, increased occurrence of pest and diseases, which resulted in decreased crop yield and income of farmers. After the intervention i.e., issuing of soil health cards to farmers and they were trained on use of soil test based fertilizer recommendations, farmers were become aware of importance of using the soil test based fertilizers to their crops which resulted in decrease in nutrient deficiencies in soil, occurrence of pest and diseases, resulted in remarkable decrease in cost of cultivation and increased crop yield and income.

Economic Gains: After adoption of Soil test based fertilizer recommendations, Farmers were experienced decrease in cost of cultivation by 10-15% and increased crop yield by 15-20 %.





2015 - ಅಂತರರಾಷ್ಟ್ರೀಯ ಮಾರ್ಕೆಟಿಂಗ್ ವರ್ಷ

ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ, ಕುಮಟಾ ಜಿಲ್ಲೆ

ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ, ಕುಮಟಾ ಜಿಲ್ಲೆ

ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ, ಕುಮಟಾ ಜಿಲ್ಲೆ

ಕ್ರಮ ಸಂಖ್ಯೆ	ವಿವರಣೆ	ಮಾಪ	ಒಟ್ಟು	ಒಟ್ಟು
1.	ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ - 2015	7.04	8136	7.0
2.	ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ - 2015	0.11	1250	1465
3.	ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ - 2015	0.48	5525	511
4.	ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ - 2015	336	3850	0.7
5.	ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ - 2015	09	1050	0.9
6.	ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ - 2015	349	4050	16.5
7.	ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ - 2015	-	-	4.3
8.	ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ - 2015	-	-	-

ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ, ಕುಮಟಾ ಜಿಲ್ಲೆ

ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ, ಕುಮಟಾ ಜಿಲ್ಲೆ

ಕೃಷಿ ವಿಜ್ಞಾನ ಶಿಬಿರ, ಕುಮಟಾ ಜಿಲ್ಲೆ

### 3. Title: Processing and Branding of Tamarind Value added products

**Background:** Smt T.B. Parvatamma w/o Siddaramaiah aged 46 years from Eralager village, Kibbanahallihobli of Tiptur taluk hails from an agricultural family. Her family owns 5ac area of dry land which is the main source of livelihood. Agricultural income was not stable (Rs 10,000 to Rs 30,000/ annum) and it was not sufficient enough to meet the family needs. Parvatamma is a SHG member of Nandini SHG group of that village. She regularly attends the programmes of women and child welfare department, KVK, agriculture department etc. Once she attended the Training programme organized by KVK, Konehalli for SHG members on value added products from agricultural enterprise and entrepreneurship development programmes. She was very active in training programme on Tamarind and its value added products as she is having 30 tamarind trees, She came forward to do processing and preparation of value added products of tamarind. With this background, KVK Konehalli conducted Front line demonstration on Processing and branding of Tamarind value added products during 2014-15 to enhance the knowledge, skill and income of the farm women.

**Technology intervention:** Demonstrated on preparation of tamarind slab making, tamarind chigali and toffees along with FSSAI registration, Branding, ordeaux and packaging.

Training and method demonstration were conducted on preparation of 1 Kg and ½ Kg tamarind slabs and value added products like chigali and toffee then her products were registered under FSSAI. Labels were also developed further the demonstration was also given on ordeaux and packaging.

### Economics of Tamarind value added products before and after Front line demonstration

Sl.no	Particulars	Before FLD	After FLD
1	Gross cost (Rs/q)	4.000	4.800
2	Gross returns (Rs/q)	5.000	10.000
3	Net return (Rs/q)	1.000	5.200
4	B:C ratio	1.25	2.08

#### Impact of FLD on Economics of Tamarind Value added products

The economic impact of Front line demonstration was worked out by calculating gross cost, gross return, net return and B:C ratio before and after Demonstration. Gross cost was calculated by expenditure on processing of tamarind like dehulling and deseeding, slab making, ordeaux and packaging, labour component. The data collected revealed that net returns before FLD was Rs.1000/q. While the net returns after FLD by registering the product under FSSAI, slab making, labelling and packaging was Rs.5.200/q. The B:C ratio before FLD was 1.25 which was increased to 2.08 after FLD. It was evident from the results of B:C ratio of Tamarind, FLD was higher compare to earlier

After intervention, she started marketing her products in exhibitions and melas. After getting exposure to these exhibitions, she has improvement in her communication, skill and also quality of products and also developed market contacts. Now she is marketing her products in local market, Tiptur and Bangalore shops. Initially Parvathamma's family were giving tamarind trees for lease for Rs 3000/year but after intervention of technology by KVK, they are earning about Rs 50.000 to Rs 75.000 net returns from tamarind trees.





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

Innovative technologies (or activities) developed by KVK Konehalli, Tumkur and their adoption level

Sl.No.	Crop / Enterprise	Innovative technology / activity	Adoption rate(%)
1	CBA's	a. Redgram&Ragi growers association b. Palm climbers associations	40 50
2	Coconut	Grading and Marketing linkage	25
3	Minor millets	Grading, Branding & Market Linkage	38
4	Soil Fertility management	Soil test based nutrient management in crops	17

**Title: Innovative Extension approach through development of Para technicians to solve Coconut production & harvesting problem in the Tumakuru District of Karnataka**

**Background:** Coconut is a predominant plantation crop of the Tumakuru district and comprises around 1.48 lakh ha. With this, recently farmers facing sever labour problem to harvest tender and matured nuts along with the serious pest like Red Palm weevil, Rhinoceros beetle, black headed caterpillar, mites and diseases incidence such as Ganoderma wilt, stem bleeding, Bud rot etc. In view of these, KVK organized vocational training programme.

**Interventions:**

**Process:** Capacity building vocational training programme was organized for the 10 young ex trainees of Palm climbing and plant protection vocational training programme from 6 Taluks of Tumakuru district during 2016-17. They were trained rigorously on improved production, integrated nutrient management, Pest & Disease management, Value addition and harvesting of nuts with suitable training module and lesson plan. One week programme was organized for the trainees and majorly focused on Skill development on above practices through method demonstration, class room lecture, interactions and exposure visits. At the last day of training programme the trainees and Horticulture department officials interactions were arranged and they were linked for further utilization of their service to the farming community.

**Technology:** Improved production, Protection, value addition and climbing in coconut

**Impact:**

**Horizontal Spread:** After the training program, each trainees were linked with horticulture department of their respective taluks. Earlier they were more focused only on palm climbing and harvesting of tender and matured nuts but after recent training programmes they focused on plant protection aspects along with harvesting. They were charged fees for their service based on the type of pest and disease problem and their severity. All ten para technicians were involved in plant protection services in coconut. They provided information on installation of pheromone traps to control red palm weevil and rhinoceros beetle in 1500 palms of the district and installed around 150 traps, they suggested around 200 farmers to use *Goniozusnephandisto* solve the black headed caterpillar problem. Technicians provided the use full information to around 300 farmers on use of Trichoderma & neem cake to manage ganoderma wilt. They also treated around 250 palms which were affected with the ganoderma wilt by using Hexaconazole through root treatment. Around 230 palms were treated with ordeaux paste on trunk of the tree to manage stem bleeding.

**Economic gains:** Earlier each trainees were earning an average income of Rs. 10,000/ to 15,000/ per month by harvesting of nuts with the skill they gained during previous palm climbing training programme. After the para technicians development training programme each technicians earned an additional income of Rs. 3,000/ to 4,000/ per month.

**Employment generation:** Out of ten para technicians 3 are fully engaged in palm climbing and plant protection work in coconut. Other 7 are partially involved along with their regular farm activities.

**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)**

<b>S. No.</b>	<b>Crop / Enterprise</b>	<b>ITK Practiced</b>	<b>Purpose of ITK</b>	<b>Scientific Rationale</b>
1	Paddy/Ragi	Seedlings were transplanted equi distance at spacing of 22.5 x 22.5cm	It facilitates intercultivation in both directions, conserves moisture, controls weeds and enhance tillering	-
2	Ragi	Sowing seeds mixed with FYM	It ensures better moisture and nutrient supply and reduces seed rate and finally lesser cost of production	-
4	Coconut	Application of common salt Planting cactus near tree	Cost effective substitute for potash and also acts as on insect repellent To control stem bleeding	-
5	Arecanut	Application of Tank silt @ 50ton/ha	Supply nutrient to crop	-
6	Paddy	Calotropies(yekka) branches are placed at the water inlet	Acts as a insect repellent	-
7	Coconut	Root feeding with neem oil	Reduce stem bleeding	-
8	Coconut	Planting kalli plants at the base of coconut palm	Reduce stem bleeding	-
9	Perennial crops	Rag husk, coconut fronds and husk are used as mulch	Check evaporation and weed growth	-
10	Redgram	Redgram is mixed with castor oil and stored in earthen vessel	Physical barrier to pests	-
11	Vegetable garden	Maize is grown around vegetable garden	Physical barrier to cattle and acts as a trap crop for insects	-

## 10 F. Technology Week celebration: Nil

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

- Dr. K.R. Shreenivasa, Scientist (Plant Protection) awarded Dr. R. Dwarkinath Best Extension worker Award by Alumini Association, UAS, Hebbal, Bangalore on 27.02.2021.
- Dr. K. R. Shreenivasa, Scientist (Plant Protection), ICAR- Krishi Vigyan Kendra, Tumkur I, awarded “Agricultural Extension Scientist Award – 2021” in appreciation of his Outstanding Contribution to Agricultural Extension Activities in ICAR-KVK Centers by Dr. B. Vasantharaj David foundation Chennai, during the 3<sup>rd</sup> National Conference on “Recent Advances in Crop Protection including IPM and Environmental Sciences from GLP Perspective” held on 17-10- 2021 at Chennai, Tamil Nadu.

- Dr. K.R. Shreenivasa, Scientist (Plant Protection), KVK, Konehalli awarded Best presentation for impact of plant protection activities disseminated by KVK on horticulture crops in tumkur district in 5<sup>th</sup> national symposium on plant protection in horticulture at IHR, Bangalore.

## PART XI – SOIL AND WATER TEST

### 11.1 Soil and Water Testing Laboratory

**A. Status of establishment of Lab** : Good

1. Year of establishment : 17-12-2005
2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty. (No.)	Cost (Rs.)	Status
1	pH meter	02	43550	Good
2	Conductivity bridge	01	7400	Good
3	Physical Balance	01	12,000	Good
4	Chemical Balance	01	48,900	Good
5	Magnetic stirrer with Hot Plate	01	5500	Good
6	Shaker with DC Motor	01	27,600	Good
7	Hot Air Oven	01	20,000	Good
8	Water Distillation Still	01	48,850	Good
9	Spectrophotometer	01	46,200	Good
10	Flame Photometer	01	38,720	Good
11	Kjeldahl Digestion and Distillation Setup	01	1,67,709	Good
12	LG Refrigerator with Stabilizer and Stand	01	15,970	Good
13	Kanchan Mixer Grinder	01	1800	Good
14	Pusa Digital STFR meter Kit	01	53,400	Good
15	Digital electrical conductivity meter	01	15,845	Good
16	Epson L655 ink tank printer	01	29568	Good
17	Dell inspiron computer	01	59708	Good
18	Electronic balance	01	46080	Good
19	Double distillation Unit	01	94663	Good
20	Double beam Automatic absorption spectrophotometer (AAS)	01	2195540	Good
21	Water softner	01	15600	Good

22	Computer, laptop and other accessories	01	180000	Good
23	Visible spectrophotometer	01	97,940	Good
24	PC link software for spectrophotometer	01	49,560	Good
25	Micro controller based flame photometer	01	64900	Good
	Total		32,19,294	

#### B. Details of samples analyzed since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	9518	9134	3123
Water Samples	7927	7612	2511
Plant samples	-	-	-
Manure samples	-	-	-
Others (specify)			
<b>Total</b>	<b>17445</b>	<b>16746</b>	<b>5634</b>

#### C. Details of samples analyzed during 2021:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	564	458	312
Water Samples	476	384	221
Plant samples	-	-	-
Manure samples	-	-	-
Others (specify)	-	-	-
<b>Total</b>	<b>1,089</b>	<b>842</b>	<b>533</b>

#### 11.2 Mobile Soil Testing Kit

##### A. Date of purchase and current status

Mobile Kits	Date of purchase	Current status
1.	28.03.2017	Not analyzing due to unavailability of related chemicals

##### B. Details of soil samples analyzed during 2021 and since establishment with Mobile Soil Testing Kit:

	During 2020	During 2021	Cumulative progress (Total)
Samples analyzed (No.)	25	168	193
Farmers benefited (No.)	20	125	145
Villages covered (No.)	5	15	20

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

Particulars	Date (s)	Villages (No.)	Farmers (No.)	Samples analyzed (No.)	Soil health cards issued (No.)
SWTL		312	458	564	564
Mobile Soil Testing Kit		5	125	168	168

### 11.4 World Soil Health Day celebration: 03/12/21

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.)
	39	39	-	1	1	2

## 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)
Integrated crop management in green Chilli ( <i>Capsicum annuum</i> L.)	10	75	1,06,500	1,55,940
			B:C - 2.36	B:C - 2.91
Integrated crop management in Tomato	20	80	1,44,620	2,20,480
			2.37	3.15
Assessment of Soil test based nutrient recommendations adopted by farmers of cluster villages of Tiptur Taluk, Tumkur district	289	60	Farmers were experienced decrease in cost of cultivation by 10-15% and increased crop yield by 15-20 %.	
Community based Monitoring and management of Red palm weevil and Rhinoceros beetle in coconut through pheromone traps	995	92	Trapping and destruction of rhinoceros beetle through pheromone traps resulted in the reduction of leaf and spindle damage by 22.5 and 55, respectively. Use of pheromone trap for red palm weevil was found to effectively reduce the palm damage by 65% and 78% dead palms.	
Processing and Branding of Tamarind Value	2	40	1.000	5.200



added products			B:C - 1.25	B:C - 2.08
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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)**

01. **Title:** Community based Monitoring and management of Red palm weevil and Rhinoceros beetle in coconut through pheromone traps

**Background** –Red palm weevil *Rhynchophorus ferrugineus* and Rhinoceros beetle *Oryctes rhinoceros* are the major pests inflicting severe damage to coconut palms. Due to ineffectiveness of the current management practices to control the two important pests on coconut, a study was conducted to know the attractiveness of red palm weevil and rhinoceros beetle to aggregation pheromone through community approach for monitoring and management to reduce the pest damage in the 12 villages of Tiptur taluk where the pest problem observed.

In order to curtail the outbreak from spreading to neighbouring coconut growing areas and to reduce the pest population in affected villages, KrishiVigyan Kendra Konehally, Tumkur planned to manage the outbreak with the financial assistance from government of Ordeaux under Integrated Farming system Demonstration project under RKVY.

**Intervention:** The pheromone technology for mass trapping of Rhinoceros Beetle (RB) and Red Palm Weevil (RPW) on coconut palms developed by Bio-Control Research Laboratories (BCRL), a division of the Pest Control-India, were used for managing the pest problem. The indigenous technology is low cost and is more effective than chemical pest control methods.

**Technology**-Sustained mass trapping through community approach over large areas appear to have the potential to bring down the population density of these noxious pests, particularly in parts where per capita land holdings are small.

**Pheromone technology demonstrated**

Sl. No.	Name of the village	No. Of farmers covered	Coconut Area covered (ha)	Average No. Of Red palm weevil trapped	Average No. Of Rhinoceros beetle trapped
1	Ramanahally	105	42	1365	630
2	Lakkihally	137	55	1644	822
3	Patrehally	110	44	1320	660
4	Mattihally	146	58	1168	438
5	Vittalapura	50	20	600	200
6	Nagatihally	58	23	580	232
7	Bommalapura	101	40	250	150
8	Bagavala	75	30	225	100
9	Margondanahally	64	25	650	180
10	Gudigondanahally	76	30	552	120
11	BommalpuraGollarahatti	23	10	150	75
	<b>Total</b>	<b>995</b>	<b>322</b>	<b>8504</b>	<b>3607</b>

**Impact-** The pheromone technology studies revealed that mass trapping is more effective when combined with sanitation in coconut farms. RPW is a pest, which affects coconut palms adults of RPW lay eggs in wounds along the trunk, through which they gain entry and feeding by large number of larvae cause the death of trees. It is very difficult for farmers to detect early stages of RPW infestation and they become aware of the problem only when the tree is about to die.”

Trapping and destruction of rhinoceros beetle through pheromone traps resulted in the reduction of leaf and spindle damage by 22.5 and 55, respectively. Use of pheromone trap for red palm weevil was found to effectively reduce the palm damage by 65% and 78% dead palms.

The impact of biological control was clearly evident in the pest affected villages after six months. Where on an average 8504 Red palm weevil and 3607 Rhinoceros beetle were trapped and further this pest were destroyed. In the days where hazardous pesticides usage is becoming a matter of concern, this success of biological control as an alternate system, gives impetus to sustainable agriculture.



12.C. Details of impact analysis of KVK activities carried out during the reporting period: Nil

### PART XIII - LINKAGES

13A. Functional linkage with different organizations

Name of organization	Nature of linkage
State Department of Agriculture, Tumakuru Dist.	Conducting training programmes, Frontline Demonstrations, On Farm Testing and field days
State Department of Horticulture, Tumakuru Dist.	Conducting training programmes, FLD's field visit
State Department of Animal Husbandry & Veterinary Services, Tumakuru	Conducting Animal Health Camps, Training for Veterinary Officers & farmers
Department of Women & Child Welfare, Tumakuru Dist.	Joint diagnostic survey, Conducting training to women Self Help Groups organizing programmes like nutrition week, world food day etc.
Department of Microbiology, UAS, Bangalore	Supplied Rhizobium, PSB, Azospirillum for FLD's and OFT's
Taluk Agricultural Produce Co-operative Marketing Society (TAPCMS), Tiptur, Arsikere.	Supplied Fertilizers, Gypsum, Neem Cake chemicals for FLD's and OFT's
General Hospital, Tiptur	Training for Womens, Child Health campaign
Gram Panchayats	Conducting training programmes to the farmers/farm women

Department of Watershed, Tumakuru	Conducting training programmes to the Department officials, NGO's and farmers and financial aid for conducting training programmes
IIHR, Hesaraghatta, Bangalore	Technical information and critical inputs for FLD's and OFT's
Zuari Industries Ltd. Tumakuru	Demonstrations and trainings
ORDER, NGO, Tumakuru	Conducting training and demonstration

### 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.)
NMSA- National mission for sustainable agriculture	Dec 2016	GOK	40,00,000
Village Adoption Programme	June 2019	UAS, Bangalore	2,00,000
ASCI Training programme	2020	ICAR, ATARI, Zone XI, Bangalore	3,60,000
PKVY	2020-21	ICAR, ATARI, Zone XI, Bangalore	3,30,000
NFSM	2020-21	ICAR, ATARI, Zone XI, Bangalore	1,80,000

### 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	Taluk and district level technical advisory committee	5	-	-
02	Research projects	-	-	-	-
		-	-	-	-
03	Training programmes	Improved production particles in field and horticulture crops	7	2	-
04	Demonstrations	Seed treatment, IPDM etc.	8	3	-
		-	-	-	-
05	Extension Programmes	-	5	2	-
	Kisan Mela	-	-	-	-
	Technology Week	-	-	-	-
	Exposure visit	-	-	-	-
	Exhibition	World soil day	3	1	-

	Soil health camps	Animal health camps	3	2	-
	Animal Health Campaigns	-	-	-	-
	Others (Pl. specify)	-	-	-	-
<b>06</b>	<b>Publications</b>	-	-	-	-
	Video Films	-	-	-	-
	Books	Improved production particles in field and horticulture crops			Distributed to department and farmers
	Extension Literature	-	-	-	-
	Pamphlets	-	-	-	-
	Others (Pl. specify)	-	-	-	-
<b>07</b>	<b>Other Activities</b> (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 : Nil**

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











## 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	1.											
	2.											
2	1.											
	2.											

### 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	470	54000	54000	13	763
2					

### 15.3 Fertilizer awareness programmeorganised: Nil

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





No. of Trainings/ Demos	No. of Farmers	No. of Trainings/ Demos	No. of Women Farmers	No. of Trainings/ Demos	No. of Youths	No. of Trainings/ Demos	No. of Ext. Person	Techno giess)	On - farm trials	Front line demos	Mob ile agro-adv isory to farmers	in extensi on activiti es (No.)	of seed (q)	of Planti ng materi al (Num ber in lakh)	of Livest ock strains (Num ber in lakh)	of fingerl ings (Num ber in lakh)	Soil, water , plant, manu res sampl es (Num ber)

### 15.11 NARI: Nil

Activity	Achievement	
	Number of activity	No. of farmers/ beneficiaries
OFTs – Nutritional Garden (activity in no. of Unit)		
OFTs – Bio-fortified Crops (activity in no. of Unit)		
OFTs – Value addition(activity in no. of Unit/Enterprise)		
OFTs - Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)		
FLDs – Nutritional Garden (activity in no. of Unit)		
FLDs – Bio-fortified Crops (activity in no. of Unit)		
FLDs – Value addition(activity in no. of Unit/Enterprise)		
FLD- Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)		
Trainings		
Extension Activities		

### 15.12 KVK Portal

No. of Events added by KVKs	No. of Facilities added by KVKs	Filled Report on Package of Practices (Y/N)				Filled Profile Report (Y/N)							
		Crop	Livestock	Fisheries	Horticulture	Employees	Posts	Finance	Soil Health Cards	Appliances	Crops	Resources	Fish
230	10	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N

### 15.13 KSHAMTA: Nil

Number of Adopted Villages	No. of Activities		No. of farmers benefited	
	Demo	Training	Demo	Training

### 15.14 DFI: -

Sl	District	Taluks	Villages	Farmers (No.)	Average Benchmark Income (Rs/year)	Crops/ enterprises	KVK Interventions	Additional Net Income generated due to KVK interventions (Rs/year)	Total income of farmer (Rs/year)
1	Tumakuru	Kunigal Tq	Shettikere	1	663000	Ragi, Paddy, Coconut, Areca nut	Areca nut + Pepper intercropping	1499000	2021000
2	Tumakuru	Kunigal Tq	Gunnagere	1	282800	Finger millet, Paddy, Coconut, Arecanut, Poultry birds	New technologies	379600	591600
3	Tumakuru	Kunigal Tq	Ippadi	1	687875	Sericulture, Coconut, Mango, Sheep	New technologies	1151000	1733500
4	Tumakuru	Turuvekere	Kurubara halli,	1	2,012,000	Coconut, Areca nut, Banana, VCO	New technologies	1,669,000	3,205,000
5	Tumakuru	Turuvekere	Melinavalagerehalli	1	4,40,375	Finger millet, Redgram, Coconut+ banana, Arecanut+ beans, Jersey-HF	New technologies	6,84,425	8,31,425

6	Tumakuru	Tiptur	Vithalapura	1	1,20,320	Finger millet, Red gram, Coconut, Cows (HF)	New technologies	1,66,600	2,17,650
7	Tumakuru	Gubbi	Belavatha	1	2,82,000	Finger millet, Paddy ,Coconut, Arecanut, Tomato and Beans, Cows (HF)	New technologies	4,18,000	5,50,360
8	Tumakuru	Tiptur	Vithalapura	1	1,72,800	Finger millet, Red gram, Castor, Vegetables& GLV, Coconut, Cow (HF), Korle value addition	New technologies	2,72,000	3,33,500
9	Tumakuru	Gubbi	Muganahunse	1	1,92,000	Green gram, Redgram, Cowpea, Mango, Coconut , Baffalo ,Cow, Intercrop with Coconut+ Cowpea , Inter Crop Mango + Green gram	New technologies	2,48,000	3,98,200
10	Tumakuru	Kunigal Tq	Gunnagere	1	329650	Finger millet, Coconut , Arecanut	New technologies	592000	739400
11	Tumakuru	Tiptur	Karikere	1	3,35,400	Ragi, Green gram, Redgram, Areca nut, Coconut, Baffalo	New technologies	475000	741000
12	Tumakuru	Tiptur	Chikkahonnnavalli	1	299800	Ragi, Green gram, Redgram, Areca nut, Coconut	New technologies	406000	513180
13	Tumakuru	Gubbi	Belavatha	1	341000	Finger millet, Paddy ,Coconut, Arecanut, Tomato	New technologies	309000	406040
14	Tumakuru	Gubbi	Belavatha	1	13,72,000	Finger millet, Coconut , Arecanut , Cow (HF),	New technologies	8,92,880	12,92,880
15	Tumakuru	Tiptur	Gowdanakatte	1	9,43,670	Finger millet, Pegion pea, Coconut, Arecanut, Banana, Cows, Buffaloes	New technologies	14,29,920	17,47,920

## PART XVI - FARMERS FEEDBACK ON ASSESSED/DEMONSTRATED TECHNOLOGIES OF CROPS / LIVESTOCK

### 16.1 Farmers feedback on performance of crop varieties/hybrids: -

Sl. No.	Crop varieties/hybrids assessed/ demonstrated	Farmer's feedback

### 16.2 Farmers feedback on performance of agronomic practices: -

Sl. No.	Agronomic practices	Farmer's feedback

**16.3 Farmers feedback on performance of pest and disease management in crops :-**

Sl. No.	Pest and disease management in crops	Farmer's feedback

**16.4 Farmers feedback on performance of farm machinery technologies :-**

Sl. No.	Farm machinery technologies	Farmer's feedback

**16.5 Farmers feedback on performance of livestock and fisheries technologies:-**

Sl. No.	Livestock/fisheries technologies	Farmer's feedback



**PART XVII - FINANCIAL PERFORMANCE**

**17A. 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 (ICAR)	Canara Bank	Tiptur	699	SB	0699101022252	572015202	CNRB0000699
With KVK (Revolving fund)	Canara Bank	Tiptur	699	SB	0699101025795	572015202	CNRB0000699
DAESI	Canara Bank	Tiptur	699	SB	0699101037387	572015202	CNRB0000699

**17B. Utilization of KVK funds during the year 2020-21(Rs. in lakh)**

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	1,25,00,000	1,25,00,000	1,25,00,000
2	<b>Traveling allowances</b>	1,60,000	1,60,000	1,60,000
3	<b>Contingencies</b>			
<i>A</i>	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3,00,000	3,00,000	3,00,000
<i>B</i>	POL, repair of vehicles, tractor and equipments	2,35,000	2,35,000	2,35,000
<i>C</i>	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1,04,000	1,04,000	1,04,000
<i>D</i>	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	70,000	70,000	70,000
<i>E</i>	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	3,50,000	3,50,000	3,50,000
<i>F</i>	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	50,000	50,000	50,000
<i>G</i>	Training of extension functionaries	25,000	25,000	24,962
<i>H</i>	Maintenance of buildings	50,000	50,000	50,000
<i>I</i>	Establishment of Soil, Plant & Water Testing Laboratory	25,000	25,000	25,000
<i>J</i>	Library	10,000	10,000	9265
<i>k</i>	Extension activities	25,000	25,000	24,538
<i>l</i>	EDP	30,000	30,000	29,915
<i>m</i>	Nutrigarden	26,000	26,000	25,966
<b>TOTAL (A)</b>		<b>400,009</b>	<b>400,009</b>	<b>398,655</b>
<b>B. Non-Recurring Contingencies</b>				

1	<b>Works</b>	0	0	0
2	<b>Equipment including SWTL &amp; Furniture</b>	0	0	0
3	<b>Vehicle</b> (Four wheeler/Two wheeler, please specify)	0	0	0
4	<b>Purchase of Computer and equipments</b>	2,43,000	2,43,000	2,43,000
<b>TOTAL (B)</b>		2,43,000	2,43,000	2,43,000
<b>C. REVOLVING FUND</b>		259940	2629375	2514343
<b>GRAND TOTAL (A+B+C)</b>		659,949	3,029,384	2,912,998

### 17C. Status of revolving fund (Rs. in lakh) for the last three years

Year	Opening balance as on 1 <sup>st</sup> January	Income during the year	Expenditure during the year	Net balance in hand as on 31 <sup>st</sup> December of each year
January to December 2019	1085932	1846736	1955867	976801
January to December 2020	976801	2480350	3197211	259940
January to December 2021	259940	2629375	2514343	374972

### 18. Details of HRD activities attended by KVK staff

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. Nagappa Desai,	Scientist (Horticulture)	MOOCS training programme	MANAGE, Hyderabad	5 day
Dr. Roopa B Patil	Scientist (Home Science)	Mushroom training	ICAR-IIHR, Bangalore	09.08.2021 to 11.08.2021
Mrs. Arjuman Banu	Training assistant	Digitalization of Agriculture and Public Private Partnership	Anand Agriculture University & MANAGE	27.09.2021 to 01.10.2021
Dr. Shreenivasa k. S	Scientist (Plant Protection)	National conference on crop protection	B V. David foundation, Chennai	17/10/2021
Dr. Shreenivasa k. S	Scientist (Plant Protection)	Online training programme on IPM	NLIPM, New Delhi	21/10/2021 to 23/10/2021
Dr. Shreenivasa k. S	Scientist (Plant Protection)	5th national symposium on plant protection in horticulture	IIHR, Bangalore	27th to 29th December 2021

Dr. Nagappa Desai	Scientist (Horticulture)	Production technology	IIHR, Bangalore	17th to 18th December 2021
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19. **Please include any other important and relevant information which has not been reflected above (write in detail). :NIL**