

**KRISHI VIGYAN KENDRA, TUMAKURU I**

**ANNUAL REPORT-2020**

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

**UNIVERSITY OF AGRICULTURAL SCIENCES, BANGALORE**  
**ICAR-KRISHI VIGYAN KENDRA, TUMAKURU**

**KVK Address with QR Code, web site, E-mail, Tel and Host Organization details**

**GENERAL INSTRUCTIONS**

**Please read the following instructions very carefully before starting preparation of the report.**

- Annual report is the most important document for the KVK and it directly reflects the overall achievements pertaining to the reported period. Hence due care needs to be given by each KVK while preparing the report.
- Period of Report is from 01 January, 2020 to 31 December, 2020.
- Action photographs with relevant captions covering all OFTS/FLDS/TRAINING/EXTENSION activities of the KVK in High resolution should be submitted separately in a CD/DVD along with this report. A part from this, soft copy of the activity wise photos may be submitted in JPEG format.
- Prepare Summary tables carefully tallying with the relevant portions of the main report on all aspects.
- Retain the blank column and rows as such and do not merge the cells. Please specify NIL, wherever not applicable or details are not available.
- Check the names of varieties and hybrids and specify in the report.
- Check the units and totals of each data table.
- Extension activity under celebrations for each important day, please insert separate rows and give appropriate data separately. Clubbing of data should be avoided.
- Success stories/case studies should be supported with data tables and graphs. Without photos success stories will not be considered for inclusion in Annual Report of ATARI.

**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, GKVK 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. O.R. Nataraju	--	9449866936	kvktumkur@gmail.com,

**1.4. Year of sanction:**

**1.5. Staff position as on 31 December 2020**

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M/ F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	Head/Senior Scientist	Dr. O.R. Nataraju	Senior Scientist & Head	M	Animal Science	MVSc. Ph.D.	144200-218200	182700	23-06-2020	Permanent	ST
2	Scientist/SMS	Dr. K.R. Shreenivasa	Scientist	M	Plant Protection ( Plant Pathology)	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, Ph.D.	68900-205500	83300	17-07-2009	Permanent	OBC

4	Scientist/SMS	Dr. M.H. Shankara	Scientist	M	Agril. Extn	M.Sc (Agri.), PGDAEM, PGDMCJ, PGDMM	68,900-2,05,500	77600	26-10-2011	Permanent	OBC
5	Scientist/SMS	Dr. Roopa B Patil	Scientist	F	Home Science	M.HSc (Food Science & Nutrition), Ph.D.	57,700-1,82,400	68800	11-10-2013	Permanent	OBC
6	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
7	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
8	Programme Assistant (Lab Tech.)	Mrs. Arjuman Banu	Programme Assistant (Lab Tech.)	F	-	B.Sc. (Agri.), MBA (ABM), Ph.D	44900-142400	47600	10-12-2013	Permanent	OBC
9	Programme Assistant (Computer)	Mr. Pradeep Kumar. H	Programme Assistant (Computer)	M	-	BE (CSE), MCA	44900-142400	50500	22-01-2011	Permanent	SC
10	Programme Assistant/ Farm Manager	Ms. Savithra	Programme Assistant/ Farm Manager	F	-	B.Sc. (Agri.)	-	24300 consolidated	25-07-2015	Temporary	SC
11	Assistant	Mr. Santhosh Kumar M.P.	-	M	-	M.Com.	-	21600 consolidated	23-12-2013	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	98000	Working
Tractor Massey Ferguson	2002	3,80,000	4992.2	Working
BikeTVS Star City (ICAR, 79 / III)	2006	40,000	57050	Working
Honda Activa (ICAR, 7 / IV)	2009	50,000	50025	Working

### C) 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

1.8.

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	Hydroponic 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 2017	12,000	Good
47	Epson L655 printer	02-11-2017	29568	Good
48	Dell incpim intel core	07-11-2017	50600	Good
49	4TB segate external hard disc	07-11-2017	11800	Good
50	Electronic balance	13-11-2017	46080	Good
51	Digital conductivity meter	18-12-2017	23600	Good
52	Aluminium sliding window	13-12-2017	16042	Good
53	pH meter electrode system	21-12-2017	33276	Good
54	Dell laptop intercore	06-03-2018	49000	Good

#### Details of SAC meeting conducted during 2020

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 programmes organised at KVK</li> <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</li> </ul>	Suggestions are included in the action plan 2020-21	-

		<p>addition</p> <ul style="list-style-type: none"> <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)

Sl. 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

S. No	Agro ecological situation	Characteristics
1	Agro Eco Sub Region-1	Hot moist, semiarid with LGP 150-180 days (LGP-length of growing period)

### 2.3 Soil type/s

S. No	Soil type	Characteristics	Area (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)	Potential yield (q/ha)	Yield gap (q/ha)
1	Paddy	34,471	25,829	38	55	17

2	Finger millet	1,49,734	2,51,525	15.5	25	9.5
3	Minor millets	3,303	4,128	8.5	12	3.5
4	Red gram	16,796	4128	12	16	4
5	Horse gram	11,460	5180	5.5	10	4.5
6	Black gram	604	193	3.2	7.5	4.3
7	Green gram	13,377	4348	5.5	7.5	2
8	Cow pea	4,495	1686	6.5	10	3.5
9	Field bean	8,009	2523	26	38	12
10	Groundnut	65,187	42567	6.5	25	18.5
11	Sesamum	662	119	3.5	5	1.5
12	Castor	1,838	783	8.5	12	3.5
13	Coconut	1,19,616	12,377 (Lakhs)	60 (No/palm)	110 (No/palm)	50 (No/palm)
14	Arecanut	32,341	43,691	11	15	4
15	Mango	15,152	151,520	100	120	20
16	Banana	5,174	127346	246	300	54
17	Tomato	1,735	92,923	530	750	220
18	Brinjal	354	11,371	121.2	160	38.8
19	Chilli	2,250	13,204	293	400	107
20	Tamarind	2,556	15,159	60	100	40

(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

Sl. No.	Crop	Area (ha)	Production in M.Tons	Yield in Tons/Hectare	Value in Rs. Lakhs
8.	Papaya	180	13764	76.47	3718
9.	Grapes	10	161	16.10	32
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
	Cauliflower	4	72	18.00	4

Sl. No.	Crop	Area (ha)	Production in M.Tons	Yield in Tons/Hectare	Value in Rs. Lakhs
c.					
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
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

Sl. No.	Crop	Area (ha)	Production in M.Tons	Yield in Tons/Hectare	Value in Rs. Lakhs
<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
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

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

#### 2.5. Weather data (Tiptur Taluk)

Month	Rainfall (mm)	Temperature °C		Relative Humidity (%)
		Maximum	Minimum	
January 20	0	19.59	10.14	69.09
February 20	0	32.25	16.15	91.62
March 20	4	27.32	16.21	54.70
April 20	48	34.09	21.30	86.86
May 20	124	25.35	17.04	65.93
June 20	123	21.3	15.13	100.2
July 20	173	27.49	18.08	133.06
August 20	82	28.52	19.94	149
September 20	165	28.80	19.89	152.5
October 20	86	26.45	18.40	143.12
November 20	25	25.63	16.99	138.4
December 20	10	28.60	16.62	137
<b>Total</b>	<b>840</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 20	0	19.56	10.35	68.74
February 20	0	31.07	16.46	90.58
March 20	5	29.49	18	72.77
April 20	51	34.71	21.88	80.6
May 20	78	26.2	17.49	74.25
June 20	91	21.75	15.45	96.56
July 20	151	28.24	18.87	139.09
August 20	79	28.91	19.82	150.93
September 20	206	29.09	19.76	156.56
October 20	126	28.22	19.48	156.64
November 20	27	33.83	16.63	140.5
December 20	-	27.38	16.10	140.03
<b>Total</b>	<b>814</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	--
Ducks	-	-	-
Turkey and others	-	-	-

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

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

2.7 District profile maintained in the KVK has been **Updated** for 2020: Yes / No

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 Kundurur 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 activities for SHG's</li> <li>• Less awareness on Processing and value addition of agriculture and horticulture produce</li> </ul>	<p>Enhancing crop productivity through soil, pest and disease management.</p> <p>Improved animal husbandry practices</p> <p>Income generating activities for SHG's</p> <p>Processing and value addition of agriculture and horticulture produce</p>



2	Turvekere	Dhabeghatta	M V Halli Lakkasandra	3 year	Bengalgram Tomato Banana Arecanut	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	Introduction of high yielding varieties Nutrient and water management
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	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	Enhancing productivity through introduction of high yielding variety and pest management and other improved packages Processing and value addition of agriculture and horticulture produce

4	Gubbi	Nittur	Sagaranahalli Kodinadevanahalli Tyagaturu Bommanahalli Kodinagenahalli N Rampura Samudrakote Muganahunase Paragondanahalli K D Halli	3 year	Coconut Arecanut Vegetable Flower crops Sheep farming Poultry	Mono-cropping, no appropriate use of space and cropping in plantation crops 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	Enhancing productivity Sustainable income generation through animal 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

### 2.8 Details of Benchmark Information collected from DFI villages

Sl. No.	Taluk	Name of the block	Name of the village	Name of the Head of Household	Annual Gross Income (Rs.)	Annual Expenditure (Rs.)	Annual Net Income (Rs.)
1	Tiptur,	Tiptur,	Vitlapura	Eshwarappa	220000	132000	88000
2	Tiptur,	Tiptur,	Vitlapura	Mahesh	264000	150000	114000
3	Tiptur,	Tiptur,	Vitlapura	Rajashekarappa VB	216000	96000	120000

Sl. No.	Taluk	Name of the block	Name of the village	Name of the Head of Household	Annual Gross Income (Rs.)	Annual Expenditure (Rs.)	Annual Net Income (Rs.)
4	Tiptur,	Tiptur,	Vitlapura	Shankarappa	360000	132000	228000
5	Tiptur,	Tiptur,	Vitlapura	Jaynanna	360000	192000	168000
6	Tiptur,	Tiptur,	Vitlapura	Honnaiah	240000	222000	18000
7	Tiptur,	Tiptur,	Vitlapura	Puttashankarappa	240000	120000	120000
8	Tiptur,	Tiptur,	Vitlapura	Eshwaraiah	1656000	252000	1404000
9	Tiptur,	Tiptur,	Vitlapura	Kallesha	276000	96000	180000
10	Tiptur,	Tiptur,	Vitlapura	Shankarappa	300000	132000	168000
11	Tiptur,	Tiptur,	Vitlapura	Bagyamma	300000	156000	144000
12	Tiptur,	Tiptur,	Vitlapura	Basavaraju	240000	120000	120000
13	Tiptur,	Tiptur,	Vitlapura	Shankarappa	240000	120000	120000
14	Tiptur,	Tiptur,	Vitlapura	Kallesha	276000	96000	180000
15	Kunigal	Kunigal	Gunnagere	Mahesh	36000	21600	14400
16	Kunigal	Kunigal	Gunnagere	Krishnappa	52200	32400	19800
17	Kunigal	Kunigal	Gunnagere	Lakkanna	39000	32400	6600
18	Kunigal	Kunigal	Gunnagere	Kiran gowda	246000	186000	60000
19	Kunigal	Kunigal	Gunnagere	Rangappa	198000	164400	33600

Sl. No.	Taluk	Name of the block	Name of the village	Name of the Head of Household	Annual Gross Income (Rs.)	Annual Expenditure (Rs.)	Annual Net Income (Rs.)
20	Kunigal	Kunigal	Gunnagere	Padmavathi	174000	144000	30000
21	Kunigal	Kunigal	Gunnagere	Krishnappa	312000	240000	72000
22	Kunigal	Kunigal	Gunnagere	Siddamma	30000	25200	4800
23	Turuvekere	Turuvekere	M V Halli	Chayaesh	250000	97000	153000
24	Turuvekere	Turuvekere	M V Halli	Prashanth	225000	132000	93000
25	Turuvekere	Turuvekere	M V Halli	Paramesh	980000	202000	778000
26	Turuvekere	Turuvekere	M V Halli	Shiva kumar	393000	91000	302000
27	Turuvekere	Turuvekere	M V Halli	Mohan	430000	95000	335000
28	Turuvekere	Turuvekere	M V Halli	Ballaramegowda	738000	164000	574000
29	Turuvekere	Turuvekere	M V Halli	Rangaswamy	430000	107000	323000
30	Turuvekere	Turuvekere	M V Halli	Netra Kumar	220000	97000	123000
31	Turuvekere	Turuvekere	M V Halli	Ramaiah	227000	102000	125000
32	Turuvekere	Turuvekere	M V Halli	Rangaswamy	62000	9000	53000
33	Turuvekere	Turuvekere	M V Halli	B C Honnalingegowda	813000	171000	642000
34	Turuvekere	Turuvekere	M V Halli	Dayananda B N	988000	230000	758000
35	Turuvekere	Turuvekere	M V Halli	Chandrashekara B C	480000	145000	335000

Sl. No.	Taluk	Name of the block	Name of the village	Name of the Head of Household	Annual Gross Income (Rs.)	Annual Expenditure (Rs.)	Annual Net Income (Rs.)
36	Gubbi	Gubbi	Belavatta	Ravish	216000	144000	72000
37	Gubbi	Gubbi	Belavatta	B N Dayananda	243600	132000	111600
38	Gubbi	Gubbi	Belavatta	Jayaprakash	372000	312000	60000
39	Gubbi	Gubbi	Belavatta	Nanjundegowda B H	542400	354000	188400
40	Gubbi	Gubbi	Belavatta	Venkateshaiah	366192	312000	54192
41	Gubbi	Gubbi	Belavatta	Shivanna	387000	372000	15000
42	Gubbi	Gubbi	Belavatta	Byregowda	153636	141600	12036
43	Gubbi	Gubbi	Belavatta	Huchhaviregowda	708000	93600	614400
44	Gubbi	Gubbi	Belavatta	Chandrashekara	80964	51984	28980
45	Gubbi	Gubbi	Belavatta	Nanjaiah	252000	90000	162000
46	C.N. Halli	C.N. Halli	Kodipalya	Marulappa	192000	186000	6000
47	C.N. Halli	C.N. Halli	Kodipalya	Ashok K T	1548000	258000	1290000
48	C.N. Halli	C.N. Halli	Kodipalya	Ravish	204000	138000	66000
49	C.N. Halli	C.N. Halli	Kodipalya	Govinda	480000	378000	102000
50	C.N. Halli	C.N. Halli	Kodipalya	R Somashekara	492000	366000	126000
51	C.N. Halli	C.N. Halli	Kodipalya	Bommaiah	528000	432000	96000

<b>Sl. No.</b>	<b>Taluk</b>	<b>Name of the block</b>	<b>Name of the village</b>	<b>Name of the Head of Household</b>	<b>Annual Gross Income (Rs.)</b>	<b>Annual Expenditure (Rs.)</b>	<b>Annual Net Income (Rs.)</b>
52	C.N. Halli	C.N. Halli	Kodipalya	Muniyappa	1200000	852000	348000
53	C.N. Halli	C.N. Halli	Kodipalya	Nagaraju	528000	432000	96000
54	C.N. Halli	C.N. Halli	Kodipalya	Doddarangaiah	480000	366000	114000
55	C.N. Halli	C.N. Halli	Kodipalya	Gangadaraiah K M	444000	288000	156000
56	C.N. Halli	C.N. Halli	Kodipalya	Huchappa	480000	354000	126000

## 2.10 Priority thrust areas

<b>S. No</b>	<b>Thrust areas</b>
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 (2020)**

**3.A. Target and Achievements of mandatory activities**

OFT				FLD			
1				2			
OFTs (No.)		Farmers (No.)		FLDs (No.)		Farmers (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
3	3	9	9	16	15	211	201
-	-	-	-	EDP - 01	EDP - 01	SHG's-01	SHG's-01
-	-	-	-	FFS	FFS		
-	-	-	-				

Training				Extension Programmes			
3				4			
Courses (No.)		Participants (No.)		Programmes(No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
60	62	2100	2278	3650	3861	20450	23526

Seed Production (Q)				Planting material (Nos.)			
5				6			
Target		Achievement		Target		Achievement	
Ragi	50	45		Chilli	4500	4400	
Redgram	6	4		Tomato	-	-	
Saame	3	2		Brinjal	-	-	
Navane	-	-		Papaya	400	340	
Haraka	-	-		Drum stick	700	661	
				Tamarind	25	10	
				Jamoon	25	19	
				Arecanut	150	116	
				Coconut	80	60	
				Mango	-	-	

Livestock, poultry strains and fingerlings (No.)				Bio-products (Kg)			
7				8			
Target		Achievement		Target		Achievement	
Cows-03		03		-		-	
Calf -03		03		-		-	
Milk -				-		-	
sheep				-		-	



## 3.B1. Abstract of interventions undertaken

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	
1)	Varietal Evaluation	Chilli	Low yielding hybrids, poor quality, leaf curling and powdery mildew disease incidence	Assessment of Chilli hybrid KBCH-1 and Arka Harita	-	2	-	-	1	200g	18000	-	No.	Kg
2)	Varietal Evaluation	Redgram	Low yield, incidence of Pest and Diseases Imbalanced nutrient management Drought at the end of reproductive stage	Assessment of Redgram Varieties for Terminal Drought conditions	-	2	-	-	2	60kg	-	-	AMC Pulse magic	16kg 10kg
3)	Varietal Evaluation	Jasmine	Low yielding and quality Lack of awareness in pruning time	Assessment of Pruning time in Jasmine (Kakada)	-	1	-	-	1	-	-	-	-	-
4)	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	50 kg	-	-	Biofertilizer-	30 kg
5)	Introduction variety	Paddy	Low yield , Blast disesae	-	Demonstration of paddy variety Gangavathi Sona	1	1	1	1	60 kg	-	-	-	-
6)	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	100g	-	-	AMC-	20kg
7)	Integrated Crop Management	Chilli	Low yielding variety, poor nutrient management, flower drops, Murda complex & powdery mildew incidence	-	Integrated Crop Management in Chilli (Arka Kathi)	1	1	-	1	300g	-	-	-	-

8)	Integrated Crop Management	Arecanut	Poor soil fertility status, nut spitting and dropping, improper nutrient management, incidence of pest and disease and low returns	-	Integrated Crop Management in Arecanut	2	1	-	1	-	-	-	AMC(liquid)	20lt
9)	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
10)	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
11)	Inter cropping system	Arecanut	Improper utilization of inter-space and weed menace in younger arecanut gardens	--	French Bean as an intercrop in younger Arecanut garden	2	-	-	2	60kg	-	-	Trichderma Pseudomonas Vegetable special Neem cake	36kg 36kg 48kg 360kg
12)	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

13)	Integrated Crop Management	French bean	Non adoption of photo period insensitive, stringless variety	-	ICM in French bean	2	-	-	1	50kg	-	-	Trichoderma Pseudomonas Vegetable special Neem cake AMC	15kg 15kg 20kg 200 kg 15kg
14)	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
15)	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-
16)		Coconut	Lack of Knowledge on processing and value addition Low income	-	EDP Programme-Coconut : Value Addition, Branding and Market Linkage	3			3	-	-	-	Labels and packaging Miscellaneous	1000 4 bundles
17)		Nutrition garden			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

### 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 Chilli hybrid KBCH-1 and Arka Harita	IIHR(B) & UAS(B)	Chilli	1	-	4	1







#### 4.A3. Abstract on the number of technologies assessed in respect of livestock

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

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	Chilli	Assessment of Chilli hybrid KBCH-1 and Arka Harita	3	3	0.48 ha
	Redgram	Assessment of Redgram Varieties for Terminal Drought conditions	3	4	2 ha
	Jasmine	Assessment of Pruning time in Jasmine (Kakada)	3	3	0.9 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>			09		3.38

#### 4.B.2. Technologies Refined 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	-	-	-	-	-
	-	-	-	-	-
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>	-	-	-	-	-

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

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

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

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

**4. B.5. Technologies assessed under various enterprises by KVKs -Nill**

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			

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(Home science)				

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

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	Net Return Rs. / unit	BC Ratio	Remarks if any
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 KBCH-1 and Arka harita	5	TO1: Ulka hybrid (Pvt.)	Farmer's practice	205.50	q/ha	-	2,11,750	3.19	-
					TO2: Arka harita	IIHR(B)	225.60	q/ha	-	2,49,900	3.82	-
					TO3:KBCH 1	UAS(D)	230.50	q/ha	-	2,61,150	4.09	-

Parameters	TO 1: Ulka hybrid (Pvt.)	TO 2 : Arka harita	TO 3 : KBCH-1
Fruit length (cm)	9.00	8.60	9.90
Fruit circumference (cm)	1.32	1.20	1.25
Fruit weight / plant (g)	1046	1250	1305
No. of fruits / plant	181	198	215
Incidence of anthracnose (%)	9.40	5.02	2.25
Incidence of powdery mildew (%)	10.40	3.00	2.85
Incidence of bacterial wilt (%)	5.20	3.05	1.40
Gross cost (Rs./ha)	96,500	88,500	84,600
Gross Return(Rs./ha)	3,08,250	3,38,400	3,45,750

#### 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 KBCH-1 and Arka harita	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 KBCH-1 and Arka harita
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

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	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	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			Progress			
					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			Progress			
					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			Progress			
					❖ 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	UHS, Bagalkote			Progress			

					g/plant in six splits		
--	--	--	--	--	-----------------------	--	--

#### 4.D1. Results of Technologies Refined

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	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
Redgram	Rainfed	Drought at the end of reproductive stage Moisture stress due to low water retention by light red soil and lower yield	Assessment of redgram varieties for terminal drought	4.0	TO.1 – Variety BRG-2 Duration : 150 – 170 days	UAS(B)	8.38	q/ha	Plant height :128.75 cm No. of branches: 10 Days to 50% flowering : 116 days No. of pods / plant : 213 Chaffiness (%) : 11.80	33739	2.68	-
					TO.2- Variety BRG 4 Duration : 140 – 145 days	UAS(B)	7.81	q/ha	Plant height : 120.3 cm No. of branches: 8 Days to 50% flowering : 107 days No. of pods / plant : 159 Chaffiness (%) : 10.5	32897	2.56	-
					TO.3- Variety TS-3R Duration : 140 – 150 days	UAS(R)	6.95	q/ha	Plant height : 95.25 cm No. of branches: 6 Days to 50% flowering 99 days No. of pods / plant : 130 Chaffiness (%) : 7.28	28653	2.36	-
					TO.2- Variety Ujwala Duration : 130 to 140 days	PJITSAU Telangana	6.67	q/ha	Plant height : 88.5 cm No. of branches: 6 Days to 50% flowering : 92 days No. of pods / plant : 112 Chaffiness (%) : 7.09	27226	2.29	-

#### 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 Assessed : Assessment of redgram varieties for terminal drought
2. Performance of the Technology on specific indicators :

- The higher yield was observed in BRG -2 variety compared to short duration varieties at the cost of 25 to 35 days more duration
- Resulted in 25.63 % increase in yield besides reduced incidence of pod borer through adoption of insect trap.

3. Specific Feedback from farmers: Among the four Varieties BRG 2 has performed higher yield and Pulse magic spray helped in reduction of flower drops

The performance of the variety is accepted by the farmers and interested for horizontal spread among farmers

4. Specific Feedback from Extension personnel and other stakeholders – Higher performance of BRG-2 variety may help to popularize under moisture stress condition

5. Feedback to Research System based on results and feedback received – Best suited for drought period, better yielder in short period & good demand and small size seed



**PART V - FRONTLINE DEMONSTRATIONS (2020)****5.A. Summary of FLDs implemented**

Sl. No.	Category	Farming Situation	Season	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ST	Others	Small/ Marginal	Others
	Oilseeds													
	Pulses													
	Cereals	Irrigated	Kharif	Paddy	Gangavathi Sona	-	Introduction variety		2	2	1	4	1	4
	Millets	Rainfed	Kharif	Finger millet	KMR - 630	-	Introduction variety	<b>Demonstration of Finger millet variety KMR - 630</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</b>  ❖ Use of high yield Hybrid -Arka abedha ❖ Foliar spray of Vegetable special ❖ Application of Neem cake Need based Plant Protection Chemical	1	1	4	6	5	5
	Vegetables	Irrigated	Rabi	Chilli	--	Arka Kyathi	ICM	<b>Integrated Crop Management in chilli</b> • Use of high yield Hybrid – Arka Kyathi • Foliar spray of Vegetable special @ 5g / liter • Spray of Planofix (0.02%) for control of flower drop • Need based Plant Protection Chemical	2.0	2.0	4	6	7	3
	Vegetables	Irrigated	Rabi	French Beans	--	Arka Arjuna	Inter cropping	<b>French Bean as a intercrop in Coconut garden</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	2.0	2.0	5	5	6	4

								flower initiation stage and regular 15 days interval Need based Plant Protection Chemical						
Vegetables	Irrigated	Rabi	French Beans	--	Arka Arjuna	Inter cropping	<b>French Bean as an intercrop in younger Arecanut garden</b> <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>	2.0	2.0	5	5	10	-	
Vegetables	Irrigated	Rabi	French Beans	--	-	ICM	<b>Integrated Crop Management in French bean</b> <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	-	
Fruit	Rainfed	Rabi	Tamarind	GKVK-17	--	ICM	GKVK-17			5	5	7	3	
Fruit	Rainfed	Perennial	Mango	Alphanso	--	ICM	<b>Integrated Crop Management in Mango (Var. Alphanso)</b> <ul style="list-style-type: none"> <li>*Application of Paclobutrazol drenching @ 5 ml/ 10 liter of water for inducing regular bearing</li> <li>*Use of Mango special @ 5 g/L</li> <li>*Spraying 20 ppm NAA at pea size of fruits followed by 2% urea to reduce fruit drop</li> <li>*Plant Protection: powdery mildew - Carbendazim @ 1 g/L</li> <li>hopper- Imidachloprid @ 0.3 ml/L</li> <li>&amp; Fruit fly – traps 20 No./ha</li> </ul>	3	3	0	10	0	10	

	2019-20	Rainfed	Perennial	Mango	Alphanso	--	ICM	<b>Integrated Crop Management in Mango (Var. Alphanso)</b>  *Application of Paclobutrazol drenching @ 5 ml/ 10 liter of 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	2	2	0	10	0	10
	Fodder	Rainfed	Perennial	Fodder-COFs-31	COFs-31	--	ICM	COFs-31			3	7	5	5
	Plantation	Irrigated	Perennial	Arecanut	Hirehalli local	--	ICM	<b>Integrated Crop Management in Arecanut</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 + 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/	1	1	3	7	5	5
	Plantation	Irrigated	Perennial	Coconut	-	-	INM	<b>Integrated nutrient management in Coconut (2019-2020)</b>  *Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, MgSO <sub>4</sub> @ 500 g ) *Mucuna as intercrops which improve soil N content *Soil application of Neem cake @ 5 kg + Trichoderma and Pseudomonas fluorescens @ 100 g each / palm/ year	1.5	1.5	0	3	0	3
	Plantation	Irrigated	Perennial	Coconut	-	--	INM	<b>Integrated nutrient management in Coconut</b>	1.2	1.2	2	8	4	6

								*Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, 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													
	Fibre													
	Dairy													
	Poultry													
	Rabbitry													
	Vermicompost													
	Sericulture													
	Apiculture													
	Implements													
	Others (EDP)						<b>EDP on Coconut</b>	<b>EDP Programme-Coconut : Value Addition, Branding and Market Linkage</b>  Preparation of coconut value added products, coconut chips and branding	-	-	1 SHG.(18 members)	-	-	-
	Demonstration						Nutrition garden to farm families	<b>Demonstration of Nutri garden</b>			30 farm families			

**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	Demonstration of paddy variety Gangavathi Sona Introduction of high yielding Gangavathi Sona Micronutrient application (ZN and Boran) Integrated pest management	Kharif 2020	H	M	L	Paddy
	Millets	Rainfed	Kharif	Finger millet	KMR - 630	-	Introduction variety	<b>Demonstration of Finger millet variety KMR - 630</b> *Use of short duration & blast resistant variety KMR -630 *Micronutrients (ZnSO <sub>4</sub> , 10 kg/ha ) *Machine harvest	Kharif 2020	H	M	L	Finger millet
	Vegetables	Irrigated	Rabi	Tomato	--	Arka Abedha	ICM	<b>Integrated Crop Management in Tomato</b> ❖ Use of high yield Hybrid -Arka abedha ❖ Foliar spray of Vegetable special ❖ Application of Neem cake Need based Plant Protection Chemical	Rabi 2020	H	M	L	Vegetable-Chilli
	Vegetables	Irrigated	Kharif	Chilli	--	Arka Kyathi	ICM	<b>Integrated Crop Management in chilli</b> • Use of high yield Hybrid –Arka Kyathi • Foliar spray of Vegetable special @ 5g / liter • Spray of Planofix (0.02%) for control of flower drop • Need based Plant Protection Chemical •	Rabi 2020	M	M	L	Cowpea
	Vegetables	Irrigated	Rabi	French Beans	--	Arka Arjuna	Inter cropping	<b>French Bean as a intercrop in Coconut garden</b> ❖ Use of Arka Arjuna as a intercrop in coconut ❖ Seed treatment with Rhizobium ❖ Vegetable Special- 2 gm /lit at flower Need based Plant Protection Chemical	Rabi 2020	H	M	M	Cowpea
	Vegetables	Irrigated	Rabi 2020	French Beans	--	Arka Arjuna	Inter cropping	<b>French Bean as an intercrop in younger Arecanut garden</b> • Use of Arka Arjun as a intercrop in Arecanut garden, which increases the soil fertility status • Seed treatment with Rhizobium	Rabi 2020	L	M	M	-



	Fodder													
	Plantation	Irrigated	Perennial	Areca nut	Hirehalli local	--	ICM	<p><b>Integrated Crop Management in Areca nut</b></p> <p>*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 + 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/</p>	Perennial 1	M	L	L	Areca nut	
	Plantation	Irrigated	Perennial	Coconut	-	-	INM	<p><b>Integrated nutrient management in Coconut (2019-2020)</b></p> <p>*Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, MgSO<sub>4</sub> @ 500 g ) *Mucuna as intercrops which improve soil N content *Soil application of Neem cake @ 5 kg + Trichoderma and Pseudomonas fluorescens @ 100 g each / palm/ year</p>	Perennial 1	M	M	L	Coconut	
	Plantation	Irrigated / Rainfed	Perennial	Coconut	-	--	INM	<p><b>Integrated nutrient management in Coconut</b></p> <p>*Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, MgSO<sub>4</sub> @ 500 g ) *Mucuna as intercrops which improve soil N content *Soil application of Neem cake @ 5 kg + Trichoderma and Pseudomonas fluorescens @ 100 g each / palm/ year</p>	Perennial 1	L	M	M	Coconut	
	Fibre													

## 5.B. Results of FLDs

### 5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo	Area (ha)	Yield (q/ha)			Check	% Increase	Economics of demonstration (Rs./ha)			Economics of check (Rs./ha)		
							Demo					Gross Return	Net Return	BCR	Gross Return	Net Return	BCR
							H	L	A								
Oilseeds																	
Pulses																	
Cereals	<b>Demonstration of paddy variety Gangavathi Sona</b> Introduction of high yielding Gangavathi Sona Micronutrient application (ZN and Boran) Integrated pest management	Gangavathi Sona	-	Irrigated	05	02	56.00	49.00	52.50	41.50	26.50	1,15,500	60500	2.10	91300	85800	1.66
Millets	<b>Demonstration of Finger millet variety KMR – 630 (2019-20)</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	18.5	14.00	32.14	60125	35125	2.40	45500	20500	1.82
Vegetables	<b>Integrated Crop Management in Tomato</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	10	1	702	520	<b>604</b>	<b>484</b>	24.79	<b>3,62,400</b>	<b>2,45,800</b>	<b>3.11</b>	<b>2,90,400</b>	<b>1,64,900</b>	<b>2.31</b>
Vegetables	<b>Integrated Crop Management in chilli</b> • Use of high yield Hybrid –Arka Kyathi • Foliar spray of Vegetable special @ 5g / liter • Spray of Planofix (0.02%) for control of flower drop • Need based Plant Protection Chemical	-	Arka Kyathi	Irrigated	10	2.0	301	185	225	186	21.50	361600	267000	3.82	297600	198400	3.00
Vegetables	<b>French Bean as a intercrop in Coconut garden</b> ❖ Use of Arka Arjuna as a intercrop in coconut garden ❖ Seed treatment with Rhizobium ❖ Vegetable Special- 2 gm /lit at flower initiation stage Need based Plant Protection Chemical	-	Arka Arjuna	Irrigated	10	2.0	Coconut 8610 nuts/palm /yr	8680	8590	8650 nuts/palm/yr	Mono-cropping	207900	139100	3.02	129750	84150	2.84
Vegetables	<b>French Bean as an intercrop in younger Arecanut garden</b> • Use of Arka Arjun as a intercrop in Arecanut 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	-	Arka Arjuna	Irrigated	10	2.0	French Beans yield 50.36	French Beans yield : 40.88	French Beans yield : 42.91	younger arecanut monocrop garden	-	184303.6	128604	3.31	-	-	-



Vegetables	<b>Integrated Crop Management in French bean</b> <ul style="list-style-type: none"> <li>• Seed treatment with Rhizobium</li> <li>• Use of Arka microbial consortium: drenching @ 20 g/lt (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
Ornamental																	
Fruit																	
Mango	<b>Integrated Crop management in mango (Var. Alphanso)</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> <li>Need based PP chemical</li> </ul>	Alphanso	--	Raifed	15	3	Flowerin g stage										
Mango (2019-20)	<b>Integrated Crop management in mango (Var. Alphanso)</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> <li>Need based PP chemical</li> </ul>	Alphanso	--	Raifed	10	2	99.60	82.50	94.50	79.30	19.17	1,51,200	1,05,600	3.32	1,26,880	78,380	2.62
Coconut	<b>Integrated nutrient management in Coconut (2019-20)</b> <ul style="list-style-type: none"> <li>*Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, MgSO<sub>4</sub> @ 500 g )</li> <li>*Mucuna as intercrops which improve soil N content</li> <li>*Soil application of Neem cake @ 5 kg + <i>Trichoderma</i> and <i>Pseudomonas fluorescens</i> @ 100 g each / palm/ year</li> </ul>	-	-	Irrigated	3	1.5	9000 nuts/ha	8562 nuts/ha	8781 nuts/ha	7031 nuts/ha	28	1,37,300	84,300	2.59	1,04,166	58,833	2.30

Coconut	<b>Integrated nutrient management in Coconut</b> *Soil test based nutrient application (Soil Application of Urea @ 1.1 kg, SSP @ 1.25 kg, MOP @ 2 kg, Borax @ 50 g, 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	-	-	Irrigated / Rainfed	10	1.2	(In Progress)										
Spices and condiments																	
Fodder																	
Areca nut	<b>Integrated Crop Management in Arecanut</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/	Hirehalli local	-	Irrigated	10	2	17.50	12.75	14.15	11.50	23.04	4,59,875	3,19,375	3.27	3,73,750	2,31,850	2.63
composting methodology	<b>Demonstration on composting methodology for areca husk (2019-20)</b> Alternate practice: 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) ✓	-	-	-	5	5 units	<b>Physico - Chemical properties of arecanut waste</b>										
							<b>Sl. No.</b>	<b>Property</b>	<b>Areca leaf</b>	<b>Leaf sheath</b>							
							1.	pH	6.1 -6.50	6 -6.50							
							2.	EC	1.53 – 1.75	1.6 – 1.78							
							3.	Total Organic carbon (%)	55 – 58	60 – 63							
							4.	Nitrogen (%)	0.70	0.65							
							5.	C : N Ration	82 – 84	96 - 98							
							6.	Lignin (%)	36.20%	38.68							
							7.	Cellulose (%)	37.50%	26.40							
8.	Hemicellulose (%)	14-15%	16 – 17%														

							Sl. No.	C:N Ratio	N (%)	P (%)	K (%)	Ca (%)	Mg (%)	OC (%)	
							Areca husk compost	20:1	0.86	0.58	1.85	2.67	1.05	25.75	
							FYM	10:1	0.56	0.25	0.37	2.1	0.95	10.8	
Fibre															
Others (pl.specify)	Establishment of nutrition garden*, Nutrition education														

\* 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 Results (2019-20):

## Total vegetables produced

SI No	Vegetables	Total yield (Kg) (30 families)	Average yield (Kg)
1	Ridge gourd	681	21.96
2	Bitter gourd	390	19.03
3	Beans	441	14.22
5	Cucumber	292	9.41
6	Knol khol	284	9.44
7	Radish	684	22.06
8	Chilli	212	6.83
9	Brinjal	513	16.54
10	Palak	910	29.35
11	Amaranth	680	21.93

## Impact of intervention on nutrient intake of farm women-30

Nutrients	RDA#	BEFORE		AFTER	
		Mean $\pm$ SD	% adequacy	Mean $\pm$ SD	% adequacy
Energy (Kcal)	2230	1515.87 $\pm$ 138.30	67.97	1743 $\pm$ 403.20	78.1
Protein (g)	55	36.97 $\pm$ 7.56	67.21	42.5 $\pm$ 5.51	77.27
Fat (g)	25	17.20 $\pm$ 3.71	68.8	18.90 $\pm$ 3.93	75.6
Fibre (g)	30	25.3 $\pm$ 4.18	84.33	28.4 $\pm$ 3.98	94.66
Calcium (mg)	600	508.16 $\pm$ 61.80	84.69	543.83 $\pm$ 36.76	90.63
Iron (mg)	21	14.96 $\pm$ 2.511	71.23	16.40 $\pm$ 2.23	78.09
$\beta$ -Carotene ( $\mu$ g)	4800	2269.76 $\pm$ 874.39	47.27	2562.57 $\pm$ 971.68	53.37
Vitamin C (mg)	40	27.13 $\pm$ 6.29	67.82	31.70 $\pm$ 6.31	79.25

## \*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>	



**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
<b>Demonstration of paddy variety Gangavathi Sona</b>	Plant Height (cm)	105	80
	No. of Tillers / plant	35	22
	Blast incidence %	2.5	6.5
	Sheath blight (%)	3.0	5.5
	stemborer damage (%)	4.0	10.5
<b>Demonstration of Finger millet variety KMR-630</b>	Plant height (cm)	80	65
	No. of Tillers / plant	10	7
	No. of fingers / ear head	6	5
	Blast incidence %	3.00	6.5
<b>Integrated Crop Management in Tomato</b>	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
<b>Integrated Crop Management in chilli</b>	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
<b>French Bean as a intercrop in Coconut garden</b>	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	
<b>Integrated crop management in French bean</b>	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





Others (pl.specify)																		
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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

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

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

**5. B4. Feedback on livestock technologies demonstrated**

Name of livestock technology demonstrated	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Demonstration on Fodder CoFS-31	higher yielding and more palatability	Higher yield upto 190 ton per ha.

**5.B.5. Fisheries -Nil**

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

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

\*\* BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

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

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

**5. B6. Feedback on fisheries technologies demonstrated-Null**

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./m <sup>2</sup> )			*Economics of check (Rs./unit) or (Rs./m <sup>2</sup> )		
						Demo				Check if any	Gross Return	Net Return	** BCR	Gross Return	Net Return
H	L	A													
Oyster mushroom															
Button mushroom															
Vermicompost															
Sericulture															
Apiculture															
Others (pl.specify)	<b>EDP Programme-Coconut : Value Addition, Branding and Market Linkage</b> Preparation of coconut value added products, coconut chips and branding	-	1	1 SHG	BCR, Consumer acceptability and Net returns	-	-	-	-	71000	49000	3.33	16400	7800	1.90

\* 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
	Particular	No. (N-100)	%	
consumer acceptability	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 -Nill

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-Nill

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


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

<b>Sl.No.</b>	<b>Activity</b>	<b>No. of activities organised</b>	<b>Number of participants</b>	<b>Remarks</b>
1	Field days	6	280	-
2	Farmers Training	52	1650	-
3	Media coverage	15	-	-
4	Training for extension functionaries	4	89	-
5	Others (Please specify)	-	-	-









Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>d) Plantation crops</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	1	19	2	21	9	2	11	28	4	32
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>e) Tuber crops</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>f) Spices</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>g) Medicinal and Aromatic Plants</b>	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>Soil Health and Fertility Management</b>	-	-	-	-	-	-	-	-	-	-
Soil fertility management	2	42	3	45	5	1	6	47	4	51
Integrated water management	1	16	3	19	10	4	14	26	7	33
Integrated nutrient management	1	25	4	29	7	4	11	32	8	40
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient use efficiency	-	-	-	-	-	-	-	-	-	-
Balanced use of fertilizers	-	-	-	-	-	-	-	-	-	-
Soil and water testing	1	15	4	19	6	1	7	21	5	26





Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Production of fry and fingerlings	-	-	-	-	-	-	-	-	-	-
Production of Bee-colonies and wax sheets	-	-	-	-	-	-	-	-	-	-
Small tools and implements	-	-	-	-	-	-	-	-	-	-
Production of livestock feed and fodder	-	-	-	-	-	-	-	-	-	-
Production of Fish feed	-	-	-	-	-	-	-	-	-	-
Mushroom production	-	-	-	-	-	-	-	-	-	-
Apiculture	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>CapacityBuilding and Group Dynamics</b>	-	-	-	-	-	-	-	-	-	-
Leadership development	-	-	-	-	-	-	-	-	-	-
Group dynamics	-	-	-	-	-	-	-	-	-	-
Formation and Management of SHGs	-	-	-	-	-	-	-	-	-	-
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	-	-	-	-	-	-	-	-	-	-
Others (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>Agro-forestry</b>	-	-	-	-	-	-	-	-	-	-
Production technologies	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Farming Systems	-	-	-	-	-	-	-	-	-	-
Others (Pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>30</b>	<b>430</b>	<b>244</b>	<b>674</b>	<b>189</b>	<b>122</b>	<b>311</b>	<b>619</b>	<b>366</b>	<b>985</b>

### 7.B Training of Farmers and Farm Women including sponsored training programmes (Off campus)

Area of training	No. of	No. of Participants
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Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Livestock feed and fodder production	-	-	-	-	-	-	-	-	-	-
Household food security	-	-	-	-	-	-	-	-	-	-
Any other (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>3</b>	<b>62</b>	<b>39</b>	<b>101</b>	<b>26</b>	<b>26</b>	<b>52</b>	<b>88</b>	<b>65</b>	<b>153</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	1	25	4	29	12	8	20	37	12	49
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	2	6	22	28	2	13	15	8	35	43
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	1	31	13	44	12	5	17	48	18	61
Management in farm animals	-	-	-	-	-	-	-	-	-	-
Livestock feed and fodder production	-	-	-	-	-	-	-	-	-	-
Household food security	-	-	-	-	-	-	-	-	-	-
Any other (pl.specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>4</b>	<b>62</b>	<b>39</b>	<b>101</b>	<b>26</b>	<b>26</b>	<b>52</b>	<b>88</b>	<b>65</b>	<b>153</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	2	12	3	15	9	4	13	21	7	28
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>	2	16	7	23	8	4	12	24	11	35
<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>	2	16	7	23	8	4	12	24	11	35
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	2	5	3	8	10	12	22	15	15	30
12.b.	Others (pl.specify) LRI	15	350	50	400	50	50	100	40	40	80
	<b>Total</b>	<b>23</b>	<b>35</b>	<b>13</b>	<b>46</b>	<b>27</b>	<b>20</b>	<b>47</b>	<b>60</b>	<b>33</b>	<b>93</b>

#### Details of sponsoring agencies involved

1. CDB
2. MANAGE
3. ASCI
4. Sujala Project

#### 7.H. Details of Vocational Training Programmes carried out by KVKs for rural youth

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.	Commercial floriculture	-	-	-	-	-	-	-	-	-	-	-	-
1.b.	Commercial fruit production	-	-	-	-	-	-	-	-	-	-	-	-
1.c.	Commercial vegetable production	-	-	-	-	-	-	-	-	-	-	-	-
1.d.	Integrated crop management	4	21	3	24	12	5	17	33	8	41		
1.e.	Organic farming	1	16	6	20	8	6	14	24	12	36		
1.f.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-	-	-
<b>2</b>	<b>Post harvest technology and value addition</b>	-	-	-	-	-	-	-	-	-	-	-	-
2.a.	Value addition	-	-	-	-	-	-	-	-	-	-	-	-
2.b.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-	-	-
<b>3.</b>	<b>Livestock and fisheries</b>	-	-	-	-	-	-	-	-	-	-	-	-
3.a.	Dairy farming	1	3	12	15	4	8	12	7	20	27		
3.b.	Composite fish culture	-	-	-	-	-	-	-	-	-	-	-	-
3.c.	Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-	-	-
3.d.	Piggery	-	-	-	-	-	-	-	-	-	-	-	-
3.e.	Poultry farming	-	-	-	-	-	-	-	-	-	-	-	-
3.f.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-	-	-
<b>4.</b>	<b>Income generation activities</b>	-	-	-	-	-	-	-	-	-	-	-	-
4.a.	Vermi-composting	-	-	-	-	-	-	-	-	-	-	-	-
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-	-	-
4.c.	Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-	-	-
4.d.	Rural Crafts	-	-	-	-	-	-	-	-	-	-	-	-
4.e.	Seed production	-	-	-	-	-	-	-	-	-	-	-	-
4.f.	Sericulture	-	-	-	-	-	-	-	-	-	-	-	-
4.g.	Mushroom cultivation	-	-	-	-	-	-	-	-	-	-	-	-
4.h.	Nursery, grafting etc.	-	-	-	-	-	-	-	-	-	-	-	-
4.i.	Tailoring, stitching, embroidery, dyeing etc.	-	-	-	-	-	-	-	-	-	-	-	-
4.j.	Agri. para-workers, para-vet training	-	-	-	-	-	-	-	-	-	-	-	-
4.k.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-	-	-
<b>5</b>	<b>Agricultural Extension</b>	-	-	-	-	-	-	-	-	-	-	-	-
5.a.	Capacity building and group dynamics	-	-	-	-	-	-	-	-	-	-	-	-
5.b.	Others (pl.specify)	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Grand Total</b>	3	40	21	59	24	19	33	64	40	94		

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

S. No.	Name of Job Role	Date of Start	Date of Close	Total Participants	No. of Participants									Date of Assessment	No of Participants passed assessment
					General			SC/ST			Grand Total				
					Male	Female	Total	Male	Female	Total	Male	Female	Total		
1	Friends of Coconut tree	10-01-2020	03-02-2020	20	13	-	13	7	-	7	20	-	20	-	-
2.	Organic growers	27-01-2020	20-02-2020	20	12	1	13	6	1	7	18	2	20	-	-

**PART VIII – EXTENSION ACTIVITIES(2020)****8.1. Extension Programmes (including extension activities undertaken in FLD programmes)**

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	17	380	27	307	20	10	30	15	5	20
Kisan Mela	-	-	-	-	-	-	-	-	-	-
Kisan Ghosthi	-	-	-	-	-	-	-	-	-	-
Exhibition	10	900	235	1135	110	40	150	30	20	50
Film Show	31	500	106	606	20	30	50	-	-	-
Method Demonstrations	35	200	109	309	120	61	181	3	2	5
Farmers Seminar										
Workshop	8	70	20	90	35	35	70	3	2	5
Group meetings	35	300	90	390	110	20	130	3	2	5
Lectures delivered as resource persons	97	1800	300	2100	250	100	350	300	57	357
Newspaper coverage	69	-	-	-	-	-	-	-	-	-
Radio talks	2	-	-	-	-	-	-	-	-	-
TV talks	1	-	-	-	-	-	-	-	-	-
Popular articles	6	-	-	-	-	-	-	-	-	-
Extension Literature	10	-	-	-	-	-	-	-	-	-
Advisory Services	1081	800	181	981	30	20	50	11	10	21
Scientific visit to farmers field	89	500	202	702	50	20	70	10	5	15
Farmers visit to KVK	948	508	190	698	30	20	50	-	-	-
Diagnostic visits	34	230	50	280	5	5	10	-	-	-
Exposure visits	12	180	20	200	50	36	86	10	1	11
Ex-trainees Sammelan										
Soil health Camp										
Animal Health Camp	7	590	20	610	35	35	70	-	-	-
Agri mobile clinic	69	8100	210	8310	300	80	380	-	-	-
Soil test campaigns	10	90	50	140	20	30	50	-	-	-
Farm Science Club Conveners meet	-	-	-	-	-	-	-	-	-	-
Self Help Group Conveners meetings	-	-	-	-	-	-	-	-	-	-
Mahila Mandals Conveners meetings	-	-	-	-	-	-	-	-	-	-
Celebration of important days (specify)	12	184	172	356	98	84	182	42	0	42
Any Other (Specify)										
<b>Total</b>	<b>2210</b>	<b>15232</b>	<b>1982</b>	<b>17214</b>	<b>1283</b>	<b>626</b>	<b>1909</b>	<b>427</b>	<b>104</b>	<b>531</b>

## 8.2 Special Extension Programmes

Nature of Extension Programme	Date(s) conducted	No. of farmers (General)			No. of farmers SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Jal Shakti Abhiyan	0	0	0	0	0	0	0	0	0	0
Fertilizer Use Awareness Campaign	0	0	0	0	0	0	0	0	0	0
National Animal Disease Control Programme	0	0	0	0	0	0	0	0	0	0
Tree Plantation Campaign	0	0	0	0	0	0	0	0	0	0
Any other, Pl.specify	0	0	0	0	0	0	0	0	0	0
<b>Swachhta Pakhawada</b>										
Displaying of banner and taking swachhata pledge	16.12.2020	22	08	30	9	5	13	5	3	8
Stock taking on digitization of office records	17.12.2020	0	1	1	1	0	1	0	0	0
Interaction with farmers on cleanliness and sanitation	18.12.2020	5	2	7	6	3	9	6	3	9
Cleanliness and sanitation drive in the villages adopted under the village adoption programme of UAS Bangalore	19.12.2020	51	9	60	15	9	24	2	1	3
Cleanliness of KVK surrounding	20.12.2020	2	3	5	1	1	2	0	0	0
Interaction with farmers on recycling of farm waste	21.12.2020	3	0	3	3	0	3	0	0	0
Training on management of soil and water for higher production	22.12.2020	31	12	43	18	8	26	0	0	0
Farmers day	23.12.2020	82	25	107	49	21	59	2	1	3
Awareness on swachhatha	24.12.2020	17	6	23	9	6	15	0	0	0
Cleanliness in public places	25.12.2020	9	3	12	13	0	13	0	0	0
Awareness on swachhatha and compitation	26.12.2020	52	15	67	9	7	16	0	0	0
Management of waste	27.12.2020	5	0	5	2	0	2	0	0	0
Kitchen garden implementation	28.12.2020	5	6	11	2	5	7	0	0	0
Visit to bio digester unit	29.12.2020	15	3	18	9	4	13	0	0	0
Awareness programme at village level	30.12.2020	9	4	13	11	3	14	0	0	0
Awareness programme at village level	31.12.2020	14	0	14	19	0	19	0	0	0

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

Crop category	Name of the crop	Name of the Variety	Quantity of seed (q)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Ragi	MR-6	45	3200	
Oilseeds	-	-	-	-	
Pulses	Redgram	BRG-1	3	21600	
Commercial crops					
Vegetables					
Flower crops					
Spices					
Fodder crop seeds	Fodder	CoFs-29/31	2.3	1,05,800	128
Fiber crops					
Forest Species					
Others (specify)					
<b>Total</b>					

**9.B. Production of hybrid seeds by the KVKs-Nill**

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 planting material by the KVKs**

Crop category	Name of the crop	Variety	Number	Value (Rs.)	Number of farmers to whom provided
Commercial	-	-	-	-	-
	-	-	-	-	-
Vegetable seedlings	Chilli	ulka	4670	2808	
	Drumsick	bhagya, pkm-1	586	5860	
Fruits	Papaya	redlady	312	5616	
	Tamarind	gkvk-17	10	1000	
	Jamun	chinthamani selection	19	2850	

Ornamental plants	-	-	-	-	
Medicinal and Aromatic	-	-	-	-	
Plantation	Arecanut	hirehally local	116	11600	Arecanut
	Coconut	Tiptur tall	60	6000	Coconut
Spices	-	-	-	-	
Tuber	-	-	-	-	
Fodder crop saplings	-	-	-	-	
Forest Species	-	-	-	-	
Others(specify)	-	-	-	-	
<b>Total</b>					

**9.D. Production of hybrid planting materials by the KVKs-Nill**

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)**

(A) KVK Newsletter:

Date of start Jan 2020 Periodicity:6 months Copies printed in each issue:\_500

(B) Literature developed/published

Item	Number
Research papers- International	7
Research papers- National	1
Technical reports	38
Technical bulletins	5
Popular articles - English	1
Popular articles – Local language	3
Extension literature	9
Others (Pl. specify)	8
<b>TOTAL</b>	<b>72</b>

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

S. No.	Type of media	Title	Details
	CD / DVD	<b>1</b>	
	Mobile Apps	-	
	Social media groups with KVK as Admin	What's app	
	Facebook account name	KVK Tumkur	
	Instagram account name	-	

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

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

**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)
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

Particulars	Frontline demonstration (Demonstrated package)	Farmers practice (Local check)
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**

<b>Sl. No.</b>	<b>Particular</b>	<b>Before FLD</b>	<b>After FLD</b>
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

**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 %.



#### 4. 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, 95ordeaux95 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 95ordeaux95 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, 95ordeaux95 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 rhinocerours beetle in 1500 palms of the district and installed around 150 traps, they suggested around 200 farmers to use *Goniozusnephantidisto* 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 98ordeaux 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)**

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK	Scientific Rationale
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 during 2020:

Period of observing Technology Week: From 15-12-2020 to 19-12-2020

Total number of farmers visited : 240

Total number of agencies involved : 05

Number of demonstrations visited by the farmers within KVK campus :

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

DR. K R. Shreenivasa, Scientist (Plant protection)- Dr. Dwarkinath Best Extension worker award, Alumini Asoosiation, UAS, Bangalore, 2021.

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

	(AAS)		
21	Water softner	01	15600
22	Computer, laptop and other accessories	01	180000
23	Visible spectrophotometer	01	97,940
24	PC link software for spectrophotometer	01	49,560
25	Micro controller based flame photometer	01	64900
<b>TOTAL</b>			<b>Rs. 32,19,294/-</b>

0

**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 the 2020:**

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	590	458	312
Water Samples	499	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-Nill****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
2.		

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

	During 2020	During 2021	Cumulative progress (Total)
Samples analyzed (No.)	25	-	-
Farmers benefited (No.)	20	-	-
Villages covered (No.)	5	-	-

**1-1.3 Details of soil health cards issued based on SWTL & Mobile Soil Testing Kit during 2020:**

Particulars	Date (s)	Villages (No.)	Farmers (No.)	Samples analyzed (No.)	Soil health cards issued (No.)
SWTL		312	458	590	590
Mobile Soil Testing Kit		5	20	25	25
<b>Total</b>		<b>317</b>	<b>478</b>	<b>615</b>	<b>615</b>

**11.4 World Soil Health Day celebration**

Sl. No.	Farmers participated (No.)	Soil health cards issued (No.)	VIPs (MP/Minister/MLA attended (No.))	Other Public Representatives participated	Officials participated (No.)	Media coverage (No.)
1.	84	51	1	4	4	3

**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 added products	2	40	1.000	5.200
			B:C - 1.25	B:C - 2.08

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 104ordeaux104 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	BommalapuraGollarahatti	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

<b>Name of organization</b>	<b>Nature of linkage</b>
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

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

### 13B. List of special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
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)
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<b>01</b>	<b>Meetings</b>	Taluk and district level technical advisory committee	5	-	-
<b>02</b>	<b>Research projects</b>	-	-	-	-
<b>03</b>	<b>Training programmes</b>	Improved production particles in field and horticulture crops	7	2	-
<b>04</b>	<b>Demonstrations</b>	Seed treatment, IPDM etc.	8	3	-
<b>05</b>	<b>Extension Programmes</b>	-	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



Fibers									
Spices & Plantation crops									
Floriculture									
Fruits – Tamarind	-	-	-	GKVK- 17	seedling	10	-	1000	
Fruits- Jamoon	-	-	-	Chintamani selection	seedling	19	-	2850	
Fruits-Papaya	-	-	-	Surya, Prabatha, Redlady	-	312		5616	
Vegetables									
Chilli	-	-	-	Arka Meghana, Arka haritha, Arka Kyathi	-	4670	-	2802	-
Drum stick	-	-	-	Bhagya, PKM-1	-	586	-	5860	-
Others (specify)									

#### 14C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)-Nill

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

#### 14D. Performance of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	cow	HF	milk	3666.8	28600	61476.7	







**PART XV –SPECIAL PROGRAMMES**

**15.1 Paramparagath Krishi Vikas Yojana (PKVY)**

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	Gunnagere, Kunigal Tq. Tumkur Dist	204.47	28.85	280.75	0.38	<ul style="list-style-type: none"> <li>• Vermicomposting</li> <li>• Scientific composting by using microbial consortia</li> <li>• Biofertilizer/Biopesticides</li> </ul>	Finger millet	ML-365	FYM Biofertilizer-DNP <i>Trichoderma</i> <i>Pseudomonas</i> Neem based products	18.5	23500	38500

**15.2 District Agriculture Meteorological Unit (DAMU)**

Agro advisories				Farmers awareness programmes	
Sl No.	No of Agro advisories generated	No of farmers registered for agro advisories	No of farmers benefitted	No of programmes	No of farmers benefitted
1	104	46000	21000	26	11000

**15.3 Fertilizer awareness programme 2020-01; Nil**

State	Name of KVK	Details of Activities/programme Organised	Number of Chief Guests	No. of Farmers attended program	Total participants
Karnataka	KVK, Tumakuru-1	-	-	-	-

**15.4 Seed Hub-Nil**

Crops	Variety	Year of release	Production				Remarks
			Target (q)	Area (ha.)	Actual Production (q)	Category (FS/CS)	

**15.5 CFLD on Oilseeds:**

Sl.No.	Crop	Varieties demonstrated and check	Allocated		Implemented	
			Area (ha)	Demos (No.)	Area (ha)	Demos (No.)
1	Castor	DCH, Jyothi	10	25	10	25
	Total		10	25	10	25

**15.6 CFLDs on Pulses:**

Sl.No.	Crop	Varieties demonstrated and check	Allocated		Implemented	
			Area (ha)	Demos (No.)	Area (ha)	Demos (No.)



## 15.10 SCSP-Nil

Farmer Training		Women Farmer Training		Rural Youths		Extension Personnel		OFT (No of Techno logiess)	Number of farmers involved			Partici pants in extensi on activiti es (No.)	Produ ction of seed (q)	Produ ction of Planti ng materi al (Num ber in lakh)	Produ ction of Livest ock strains (Num ber in lakh)	Produ ction of fingerl ings (Num ber in lakh)	Testi ng of Soil, water , plant, manu res sampl es (Num ber)
No. of Trainings/ Demos	No. of Far mers	No. of Trainings/ Demos	No. of Wo men Far mers	No. of Trainings/ Demos	No. of You ths	No. of Trainings/ Demos	No. of Ext. Per son		On - far m tri als	Front line demo s	Mob ile agro-advis ory to farm ers						

## 15.11 NARI-

Activity	Achievement	
	Number of activity	No. of farmers/ beneficiaries
OFTs – Nutritional Garden (activity in no. of Unit)	01	30
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)	01	18
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
155	14	Y	N	N	N	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

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

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute (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

**16B. 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	10
2	<b>Traveling allowances</b>	1,60,000	1,60,000	1,60,000
3	<b>Contingencies</b>			
A	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
B	POL, repair of vehicles, tractor and equipments	2,35,000	2,35,000	2,35,000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1,04,000	1,04,000	1,04,000
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	70,000	70,000	70,000
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	3,50,000	3,50,000	3,50,000
F	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
G	Training of extension functionaries	25,000	25,000	24,962
H	Maintenance of buildings	50,000	50,000	50,000
I	Establishment of Soil, Plant & Water Testing Laboratory	25,000	25,000	25,000
J	Library	10,000	10,000	9265
k	Extension activities	25,000	25,000	24,538
l	EDP	30,000	30,000	29,915
m	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>		<b>659,949</b>	<b>3,029,384</b>	<b>2,912,998</b>

#### 16C. 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 2018	1085932	1846736	1955867	976801
January to December 2019	976801	2480350	3197211	259940
January to December 2020	259940	2629375	2514343	374972

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. K.R. Shreenivasa	Scientist (Plant Protection)	1. E-training on Pest surveillance 2. DESEE force training youth for providing crop health service	NIPHM, Hyderabad FTI, UAS, GKVK, Bangalore	16.09.2020 to 21.09.2020 22-09-2020 to 23-09-2020
Dr. Anitha M S	Scientist (Soil Science)	1.Short course on Precision Agri tech for income augmentation & entrepreneurship development 2.DESEE force training youth for providing crop health service	Tripura FTI, UAS, GKVK, Bangalore	07-07-2020 to 18-07-2020 22-09-2020 to 23-09-2020
Mr. Pradeep Kumar H	Programme Assistant (Computer)	Full Stack Web Development	ATARI, Zone XI, Bengaluru (IIT, Roorkee)	01.10.2020 to 14.10.2020

18. **Please include any other important and relevant information which has not been reflected above (write in detail). Like details regarding FPO formation, Achievements during COVID-19 lockdown period.**

- KVK has proposed to University for formation of FPO on Tamarind crop
- During lock down period KVK has sent around 86 SMS and Social media messages regarding improved production technologies in crops, health boosting tips and also given market linkage for 15 tones of Banana, 18 tones of tomato, 38 tones of water melon and around 35 tones of other vegetables like chilli, brinjal and leafy vegetables including flower crops