



UNIVERSITY OF HORTICULTURAL SCIENCES, BAGALKOT



ANNUAL PROGRESS REPORT

(JANUARY 2019 TO DECEMBER 2019)



**ICAR- KRISHI VIGYAN KENDRA
KOLAR (KARNATAKA)**

Address and Host Organization details

Krishi Vigyan Kendra, N.H-75, Tamaka, kolar-563103 Office: 08152-243099, 9480696395	University of Horticultural Sciences, Udyanagiri, Bagalkot-587104 Office: 8354-230351, vc@uhsbagalkot.edu.in , de@uhsbagalkot.edu.in Website: www.uhsbagalkot.edu.in
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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
Krishi Vigyan Kendra, N.H-75, Tamaka, kolar-563103	Office: 08152-243099, 9480696395 Fax: 08152-243208	kvk.kolar@icar.gov.in	www.kvkkolar.in

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

Address	Telephone		E mail	Web Address
	Office	Fax		
University of Horticultural Sciences, Udyanagiri, Bagalkot-587104	8354-230351	08354 – 230364	vc@uhsbagalkot.edu.in de@uhsbagalkot.edu.in	www.uhsbagalkot.edu.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
K. Thulasiram	9448633234	9480696395	thulasiram_1968@yahoo.co.in

1.4. Year of sanction: December, 2012

1.5. Staff position as on 31 December 2019

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	Mr. K.Thulasi Ram	Senior Scientist & Head	M	Entomology	M.Sc.(Agri.)	131400 - 217100	156900	26/12/12	Permanent	Others
2	Scientist/SMS	Dr. Anil Kumar	Scientist	M	Soil Science	Ph.D	68000-205500	87200	03/08/19	Permanent	Others
3	Scientist/SMS	Dr. Ambika D.S	Scientist	F	Plant protection	Ph.D	57700-182400	77500	26/06/19	Permanent	Others
4	Scientist/SMS	Dr. Shashidhar K.R.	Scientist	M	Sericulture	Ph.D	57700-182400	77500	17/01/14	Permanent	SC
5	Scientist/SMS	Dr. Nagaraja K.S.	Scientist	M	Horticulture	Ph.D	57700-182400	64900	11/05/15	Permanent	ST
6	Scientist/SMS	Dr. Chikkanna G.S.	Scientist	M	Home Science	Ph.D	57700-182400	64900	22/06/16	Permanent	Others
7	Scientist/SMS	Vacant									
8	Prog. Assist. (Lab Tech.)	Vacant									
9	Prog Assist. (Computer)	Mrs. C.S. Gnanasudha	Prog. Asst. (Comp)	F	-	MCA	9300-34800		27/1/14	Permanent	SC
10	Prog. Assist./ Farm Manager	Mr. Umesha Naik	Farm Manager	M	-	M.Sc.(Agri.)	9300-34800		3/1/14	Permanent	ST
11	Assistant	Mr. Ravi Shankar	Assistant	M	-	M.Com	30350-58250	32450	22/3/13	Permanent	SC
12	Jr. Stenographer	Mrs. Savitri Rudrapur	Steno	F	-	M.Com	37900-70850	42000	12/3/14	Permanent	Others
13	Driver - 1	Mr. Pradeep	Driver	M	-	IX class	-	13500	1/08/14	Temporary	SC
14	Driver - 2	Vacant	-	M	-	-	-	-	-	-	-
15	SS-1	Mr. Srinath	SS	M	-	PUC		10500	02/1/17	Temporary	SC

1.6. Total land with KVK (in ha): 16 ha

S. No.	Item	Area (ha)
1	Under Buildings	--
2.	Under Demonstration Units	0.06
3.	Under Crops	1.12
4.	Orchard/Agro-forestry	2.0
5.	Others	12.82

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							
2.	Farmers Hostel							
3.	Staff Quarters							
	1							
	2							
	3							
	4							
4.	Demonstration Units							
	1. Farm pond	GOK	-	15x15x9 m	2,50,000			
	2 . Curry leaf block	ICAR	-	100	-			
	3.Low cost poly house 1	ICAR	-	216	3,68,185			
	4.Poly tunnels 4	ICAR	-	400				
	5.Jackfruit processing unit	ICAR	-	10	3,95,265			
	6.Hydroponic fodder unit	ICAR	-	4x2 sq.ft	30000			
5	Fencing							
6	Rain Water harvesting system							
7	Threshing floor							
8	Farm godown							
9								
10								

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero ZLX (Four Wheeler)	12/06/2014	663706	129322	Running
Hero splendor (Two Wheeler)	12/05/2013	54600	17178	Running
Honda Activa (Two Wheeler)	31/12/2013	61345	16503	Running

C) Equipment & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Vegetable preservator	2014	3000	Good
Sealing machine	2014	1700	Good
Gas cylinder and stove	2014	5857	Good
Mixer and juicer	2014	4200	Good
Micro Oven	2014	5800	Good
Pressure cooker	2014	1400	Good
Electronic balance (6 kg)	2016	6646	Good
Weighing balance (60 kg)	2016	9495	Good
Vegetable Handy Planter	2016	2000	Good
Branded Heavy duty load bearing cabinet (Steel Almirah)	2016	14470	Good

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Branded carware brand caned seating ('S' type full arm chair)	2016	2445	Good
Knock down Type seating (Wooden peacock chair)	2016	4567	Good
Branded Indexed Cabinet 4 Drawer filing cabinet with 100 CFF(Filing cabinet)	2016	17458	Good
Branded officers Desk (T-9 Table) with 18 mm PLB Top	2016	12033	Good
Jack Fruit Chips machine	2016	8800	Good
Nikon D5300 (with free gb card + carry case +HDMI cable)	2016	34800	Good
Sealing Machine	2017	1000	Good
ISI A,, "Taypcerana Bee hive Box	2017	17600	Good
Branded 12 Pigeons Wooden magazine display cabinet	2017	24390	Good
Steel Book case	2017	14470	Good
Branded officers steel table	2017	11877	Good
Remote calling bell	2017	400	Good
Dell Desktop system	2017	36500	Good
Canon Printer LBP 2900	2017	7800	Good
Hydroponic system unit(1)(72 tray)	2017	30000	Good
Soil sampling Augur set	2017	19980	Good
Executive Revolving chair	2017	12159	Good
Executive table	2017	16299	Good
Officers Revolving chair	2017	58212	Good
Pulp boiling machine	2017	94447	Good
Conventional pulp making machine	2017	54500	Good
Pulp making machine all contact parts made of food grade 304 SSsteel	2017	31700	Good
Digital Hand held refractometer for invert sugar	2017	27000	Good
Digital PH meter make: systronics india Mode 335	2017	14500	Good
Racks 6 ft (8 Angle & 6 Plates)	2017	3600	Good
Toshiba e -studio xerox machine	2017	86000	Good
Acer Desktop Computer	2017	99900	Good
Mridaparikshak soil testing Kit(Mini lab)	2017	86000	Good
Logitech webcam	2017	900	Good
Logitech R400 Presenter	2017	3120	Good
Logitech Mouse wireless	2017	700	Good
Flame photometer	2017	73758	Good
Hand operated cocoon deflossing machine	2017	8000	Good
Water bath circulator	2017	88500	Good
Analytical Balance	2017	67850	Good
EC meter	2017	98530	Good
Kjeldahl apparatus	2017	215800	Good
AAS unit	2017	1489000	Good
Double distillation unit	2017	167000	Good
CC Camera	2017	34700	Good
Desk top	2017	47800	Good
All in one Printer	2017	18000	Good
Epson LCD Projector	2018	44000	Good
Mango Ripening chamber	2019	10620	Good
Solar LED insect light trap	2019	3780	Good
Hydraulic Juice(KSDH)	2019	94,000	Good
Amla shredding machine(KSDH)	2019	72,000	Good
Boiled amla	2019	72200	Good
Officers table both side 3 drawers of size(IMD)	2019	24120	Good
S type full A/c chair(IMD)	2019	5220	Good
Heavy guage steel plain almirah	2019	15039	Good

1.8. Details of SAC meeting conducted during 2019 : Not conducted

Date	Number of Participants	Salient Recommendations	Action taken	Remarks, if any

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	Irrigated (bore well)	Tomato- Pole beans, Potato, Ragi, Vegetables, Mulberry, Coconut, Sapota, papaya, Guava etc.
2	Tank Irrigated	Paddy
3	Rainfed	Ragi based mixed cropping, Groundnut based intercropping, Maize, Pigeon pea, Horse gram, Field bean, Mango, Cashew, Tamarind etc.
4	Enterprises	Sericulture, Dairy, Poultry, Sheep and Goat rearing

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

S. No	Agro-climatic Zone	Characteristics
1	Eastern dry zone	Kolar district is a drought prone district and all the taluks comes under agro climatic zone-5 i.e., eastern dry zone. It is characterized by low, scanty and uneven distributed rainfall with shallow and poor soils. Kolar district is having a typical rain fed situation with an average rainfall of 726.6 mm with 45.1 rainy days. Agriculture in the district is mainly rain fed and it has no perennial rivers. Tanks and tube wells are the main sources of irrigation. The district has 2328 tanks irrigating an area of 22795ha and no. of tube wells are 84286 with a net irrigable area of 33469 ha which accounts for 19.61 % of net sown area.

S. No	Agro ecological situation	Characteristics
1	Semi-arid climate	The district receives an annual rainfall of 744 mm received in 45 rainy days. The duration of the monsoon, however, seems to be shrinking with the first three months in the year receiving very little rainfall in recent times. The rainfall distribution has two peaks, one during May and another during September. It is characterized by erratic and uneven distribution. Predominantly the tube wells/bore wells are the major source of irrigation in the district. There are about 41,311 ha of land being irrigated through such bore wells. The number of irrigation pump sets existing in the district is 50,366. Tanks and open wells are the other sources of irrigation.

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Medium deep, red clayey soil	Red to a bright reddish-orange in color. They are typically quite acidic, often having a pH of less than 5.	7026
2	Medium deep, red gravelly soil	Red in color which is mainly due to ferric oxides. They are usually poor growing soils, low in nutrients and humus.	17946
3	Deep, red clayey loam soil	Clay loam is a soil mixture that contains more clay than other types of rock or minerals. These soils contains a good amount of plant nutrients and supports most types of plants and crops	88400
4	Deep, red clayey soil	Soil mixture contains less clay component. Nutritionally poor.	119720
5	Deep, red gravelly clay soil	Same as clayey loam but gravelly in nature	20363
6	Deep, lateritic clayey soil	These soils are rich in iron and aluminum. Nearly all laterites are rusty-red because of iron oxides.	16813
7	Deep, lateritic gravelly clayey soil	Characteristically similar to the lateritic clayey but stony and gravelly nature less suitable for arable crop cultivation	10940
8	Deep, alluvial clayey soil (salt affected)	A soil deposit developed on floodplain and delta deposits. Soil supports good crop growth.	92843
9	Red gravelly clay soils (Rocky land)	They are less clayey and sandier and are poor in important minerals like lime, phosphorous and nitrogen. Red soil is acidic like that of the Lateritic soil.	11036

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

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
Field crops				
1.	Ragi	60693	1290959	2127
2.	Ground nut	7065	14187	7065

3.	Avare	7675	4028	516
4.	Tur	2335	4213	1252
5.	Maize	206	45232	4000
6.	Cowpea	1048	439	271
7.	Horse gram	239	970	1216
8.	Minor millets	238	685	826
	Vegetable crops			
9.	Tomato	8803	501984	57020
10.	Potato	5982	97619	16320
11.	Beans	3335	35785	10730
12.	Cabbage	1836	37622	20490
13.	Knol-khol	1635	29491	18040
14.	Green chilli	1386	28459	20530
15.	Carrot	1499	29212	19490
16.	Brinjal	1063	33178	31210
17.	Radish	1060	12986	12250
18.	Cauliflower	826	13451	16280
19.	Onion	365	7059.	19340
20.	Capsicum	532	10785	20270
21.	Ladies finger	346	3151	9110
22.	Drumstick	117	242	2070
23.	Beetroot	829	14564	17560
24.	Methi	317	3548	11190
25.	Palak	406	3874	9540
26.	Amaranthus	848	14893	17560
27.	Pumpkin	87	2219	25270
28.	Ridge gourd	137	1185	8650
29.	Bitter gourd	94	755	8040
30.	Bottle gourd	49	716	14610
31.	Snake gourd	63	1005	15960
32.	Ash gourd	131	2776	21110
33.	Cucumber	223	3558	15920
	Fruit crops			
34.	Mango	52371	446615	8530
35.	Banana	2938	96872	32960
36.	Sapota	2965	45611.	15380
37.	Guava	666	11485	17220
38.	Papaya	343	31462	72610
39.	Grapes	165	3377	20470
40.	Citrus and its sps.	98	2436	24730
41.	Pomegranate	139	1494	10730
42.	Custard apple	495	3974	8030
43.	Watermelon	829	36643	44200
44.	Amla	18	144	8037
	Plantation crops			
45.	Coconut	5664	627	110
46.	Cashewnut	2042	3940	1930
47.	Arecanut	3	4.96	1500
	Aromatic crops			
48.	Davana	657	6455	9650
49.	Geranium	63	885	13920
	Spice crops			
50.	Tamarind	3289	13810	4200
51.	Coriander	248	161.23	650
52.	Ginger	107	1419.3	13260
53.	Dry chilli	158	278.04	1760
54.	Turmeric	44	405.98	9230
55.	Garlic	30	231.44	7710
	Flower crops			
56.	Marigold	733	7191	7710
57.	Rose	654	1405	9810
58.	Chrysanthemum	233	3288	2150
59.	Aster	160	1573	14090

60.	Jasmine	154	1103	9840
61.	Crossandra	100	535	7170
62.	Davana	658	6464	5350
	Sericulture			
63.	Mulberry	20596.55	-	72 kg/100 dfls

*Dept of Agriculture & Horticulture (2019)

2.5. Weather data

Month	Rainfall (mm)		Temperature 0 C		Relative Humidity (%)
	Normal	Actual (2019)	Maximum	Minimum	
January	3	12	30	27.1	94.5
February	5	7	32.4	16.3	92.6
March	10	0	36.2	18.29	83.3
April	29	50	37	20.25	85.37
May	76	78	36.6	21.88	83.2
June	63	66	33.4	22.14	86.7
July	76	46	31.6	21.06	87.8
August	94	98	30.9	20.87	85.4
September	154	142	32.1	19.7	84.5
October	151	164	31.1	19.1	86
November	46	16	30.0	20.1	82
December	12	14	31.1	17.1	81
Average	719	693	32.7	20.32	86.03

*Dept of Agriculture, Kolar

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

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	173620	-	-
<i>Indigenous</i>	55416	-	-
Buffalo	45876	-	-
Sheep			
<i>Crossbred</i>	2197		
<i>Indigenous</i>	442903		
Goats	86263		
Pigs	2385		
<i>Crossbred</i>	1872		
<i>Indigenous</i>	312		
Rabbits			
Poultry			
Hens	4275529		
<i>Desi</i>			
<i>Improved</i>			
Ducks			
Turkey and others			
Fish			
<i>Marine</i>			
<i>Inland</i>	38.76 lakh (Fish seed stock)	1848 tons	
Prawn			
Shrimp			

* Kolar Dist. At a glance, Dist. Statistical office, 2019

2.7 District profile maintained in the KVK has been **Updated** for 2019: Yes / No :**Yes**

2.8 Details of Operational area / Villages

Sl. No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Kolar	-	Yadaha lli	1	Ragi, potato, mulberry, Tomato, Marigold, Nutritional security	1.Early or mid season drought, erratic rainfall , blast and lack of awareness on use of micronutrients/biofertilizers 2.Excess haulm development at the cost of tuber, late blight, mite, tuber moth and defoliator problem 3.Severity of American pin orm, Thrips, Red mites, Fruit borer, Early and Late blight, indiscriminate use of PP chemicals 4.Severity of SLM, Thrips, Red mites and Bud worm in marigold 5. Less intake of fresh vegetables in daily diet	Yield optimization through improved varieties, IPM and IPDM and nutritional security
2	Bangarpet		Thimm asandra	2	Tomato, Cauliflower, Mulberry, Silkworm rearing, Milk production, Nutritional Security	1.Injudicious use of fertilizers, Uneven sized fruits, Discolored fruits, Blossom End Rot, Poor quality of fruits affecting marketability 2. Diamond back moth and aphids severity 3. Lack of information on better utilization of sericulture farm residue 4. Reduced good cocoon yield due to increase in disease incidence 5. Lack of awareness and knowledge on preparing value added products, labeling, branding and marketing of the product 6. Less intake of fresh vegetables in daily diet	Judicious use of nutrients, IPM and IPDM and nutritional security and entrepreneurship development
3	Srinivasa pura	-	Kadudevandah alli	2	Horse gram, Mango, Tomato, Mulberry, Silkworm rearing, Tamarind, Nutritional Security	1.Traditional varieties, Low yield and yellow mosaic menace 2.Inadequate water conservation measures, no micro nutrient management, poor canopy management, Improper management of pest and diseases, fruit drop, low yield and quality of fruits 3. Non-utilization of inter space in mango orchards 4.Improper application of chemical fertilizers, non utilization of biofertilizers, green manures and micronutrients 6. Severe infestation of uzi fly during rainy and winter seasons, more defective cocoon leads to low cocoon price 7. Reduced good cocoon yield due to increase in disease incidence 8. Less intake of fresh vegetables in daily diet	Yield optimization through improved varieties, ICM practices, better utilization of interspace, Effective pest and disease mgt.
4	Malur		Thippasandra	2	Chilli, Pole beans, Cauliflower, Ridge gourd, Nutritional Security	1. Poor nutrient management, Flower drop, Murda complex, Leaf spot, Powdery mildew and Anthracnose incidence 2.Severe incidence of Yellow Mosaic Virus and Low yield 3. Whiptail , Brown rot, DBM incidence and Low yield with poor quality curd 4. Heavy incidence of yellow vein mosaic disease resulting in yield losses 5.Less intake of fresh vegetables in daily diet	Yield optimization through improved varieties, IPM and IPDM

2.9 Details of Benchmark Information collected from DFI villages

S.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.	Kolar	Kasaba	Yadahalli	Raghu	118000	80333	37667
2.	Kolar	Kasaba	Yadahalli	Praksah	64500	40832	23668
3.	Kolar	Kasaba	Yadahalli	Shamachari	80500	42000	38500
4.	Kolar	Kasaba	Yadahalli	Ramachandra	103000	52998	500002
5.	Kolar	Kasaba	Yadahalli	Chandrasekar	46666	30498	16168
6.	Kolar	Kasaba	Yadahalli	Nagesh	100832	50582	50250
7.	Malur	Rajenahalli	Thippasandra	Muniyappa	32499	25747	6752
8.	Srinivaspura	Kasaba	Kadudevandahalli	Manjunath	948000	450000	498000
9.	Srinivaspura	Kasaba	Kadudevandahalli	Ramesh	460000	220000	240000
10.	Srinivaspura	Kasaba	Kadudevandahalli	Parvathamma	180000	65000	115000
11.	Srinivaspura	Kasaba	Kadudevandahalli	Muniswamy	255000	85000	170000
12.	Srinivaspura	Kasaba	Kadudevandahalli	Venkateshappa	325000	95000	230000
13.	Srinivaspura	Kasaba	Kadudevandahalli	Munivenkatappa	225000	85000	140000
14.	Srinivaspura	Kasaba	Kadudevandahalli	G.Narayanappa	425000	175000	250000
15.	Kolar	Kasaba	Yadahalli	Raghu	650000	235000	415000
16.	Kolar	Kasaba	Yadahalli	Bacchegowda	240000	110000	130000
17.	Kolar	Kasaba	Yadahalli	Shyamachari	180000	55000	125000
18.	Kolar	Kasaba	Yadahalli	Shekar	320000	105000	215000
19.	Kolar	Kasaba	Yadahalli	Prakash	430000	210000	220000
20.	Kolar	Kasaba	Yadahalli	Babu	345000	125000	220000
21.	Bangarpet	Bethamangala	Thimmasandra	Gopalappa	180000	60000	120000
22.	Bangarpet	Bethamangala	Thimmasandra	Munivenkatappa	225000	80000	145000
23.	Bangarpet	Bethamangala	Thimmasandra	Chandrayappa	345000	180000	165000
24.	Bangarpet	Bethamangala	Thimmasandra	Raju	245000	108000	137000
25.	Bangarpet	Bethamangala	Thimmasandra	Anjanappa	410000	185000	225000
26.	Bangarpet	Bethamangala	Thimmasandra	Munivenkatamma	245000	108000	137000
27.	Bangarpet	Bethamangala	Thimmasandra	Muniswamy	224000	100000	124000
28.	Bangarpet	Bethamangala	Thimmasandra	Venkataramu	328000	188000	140000
29.	Malur	Masti	Thippasandra	Madhu. M	510000	185000	325000
30.	Malur	Masti	Thippasandra	Muniyappa	390000	309000	81000
31.	Malur	Masti	Thippasandra	Satish	110000	59000	51000
32.	Malur	Masti	Thippasandra	Papanna	60800	32500	28300
33.	Malur	Masti	Thippasandra	Muruges	175000	141000	33500
34.	Malur	Masti	Thippasandra	Govindaraju	97000	26000	71000
35.	Malur	Masti	Thippasandra	Chinnappa	180000	71500	108500
36.	Malur	Masti	Thippasandra	Venkateshappa	120000	45000	75000
37.	Malur	Masti	Thippasandra	Ravikumar	305000	157000	148000
38.	Malur	Masti	Thippasandra	Perimal Ganesh	36000	13000	23000
39.	Malur	Masti	Thippasandra	Ashwathappa	100000	78000	22000
40.	Malur	Masti	Thippasandra	Ashwathappa	183000	118000	65000
41.	Malur	Masti	Thippasandra	Ramanji	310000	220000	90000
42.	Malur	Masti	Thippasandra	Harish. K.	1238250	766000	472250
43.	Malur	Masti	Thippasandra	Veeregowda T.N.	326000	190000	136000
44.	Malur	Masti	Thippasandra	Gundappa	69000	44000	25000
45.	Malur	Masti	Thippasandra	Subramani D.	150000	72000	78000

S.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.)
46.	Srinivapura	Kasaba	Kadudevandahalli	Ramesh. M.	372000	349200	22800
47.	Srinivapura	Kasaba	Kadudevandahalli	Munishyami gowda	349992	210000	139992
48.	Srinivapura	Kasaba	Kadudevandahalli	M.,Ramakrishna gowda	660000	402000	258000
49.	Srinivapura	Kasaba	Kadudevandahalli	D.L. Narayaswamy	429600	336000	93600
50.	Srinivapura	Kasaba	Kadudevandahalli	Anjinappa	144000	108000	36000
51.	Srinivapura	Kasaba	Kadudevandahalli	Goplakrishna gowda	462000	343200	118800
52.	Srinivapura	Kasaba	Kadudevandahalli	Madhu	324000	204000	120000
53.	Srinivapura	Kasaba	Kadudevandahalli	N. Venkatesh gowda	168000	139200	28800
54.	Srinivapura	Kasaba	Kadudevandahalli	Dhanunjay gowda	1464000	1428000	36000
55.	Srinivapura	Kasaba	Kadudevandahalli	Venkateshappa C.	1483200	480000	1003200
56.	Srinivapura	Kasaba	Kadudevandahalli	Chowdegowda. R.	193992	160800	33192
57.	Srinivapura	Kasaba	Kadudevandahalli	K..C. Prabhu	399984	249996	149988
58.	Srinivapura	Kasaba	Kadudevandahalli	Munivenkatappa. S.	480000	181200	298800
59.	Srinivapura	Kasaba	Kadudevandahalli	Munishaymigowda . D. R.	187992	160488	27504
60.	Srinivapura	Kasaba	Kadudevandahalli	Krishnappa. K.N.	420000	380796	39204
61.	Srinivapura	Kasaba	Kadudevandahalli	Munivenkatappa.L .	498000	438792	59208
62.	Srinivapura	Kasaba	Kadudevandahalli	Munivenkatappa. E.	1404000	339984	1064016
63.	Srinivapura	Kasaba	Kadudevandahalli	Munishyamigowda	456600	310200	146400
64.	Srinivapura	Kasaba	Kadudevandahalli	Chowdappa	102000	66300	35700
65.	Srinivapura	Kasaba	Kadudevandahalli	Ramachandregowda	987600	922200	65400
66.	Srinivapura	Kasaba	Kadudevandahalli	Harish gowda	145000	108000	37000
67.	Srinivapura	Kasaba	Kadudevandahalli	Munirajgowda	507000	390000	117000
68.	Srinivapura	Kasaba	Kadudevandahalli	K. M.Ravi	331800	288000	43800
69.	Srinivapura	Kasaba	Kadudevandahalli	Munegowda	312000	180000	132000
70.	Srinivapura	Kasaba	Kadudevandahalli	Padmanna	504000	228000	276000
71.	Srinivapura	Kasaba	Kadudevandahalli	Somasekhar	552000	272400	279600
72.	Srinivapura	Kasaba	Kadudevandahalli	Venkateshappa	840000	438000	402000

2.10 Priority thrust areas

S.No.	Thrust area
1.	Yield optimization through improved varieties
2.	IPM and IDM and micro nutrient management in horti. crops
3.	Soil and water conservation & INM practices in fruits and vegetables
4.	Insect pest management in mulberry and silkworm rearing
5.	Effective conversion of organic waste in to manure
6.	Value addition in milk and groundnut
7.	Providing nutritional security to farm families through nutri-gardens

PART III - TECHNICAL ACHIEVEMENTS (2019)

3.A. Target and Achievements of mandatory activities

OFT				FLD			
1		2		3		4	
OFTs (No.)		Farmers (No.)		FLDs (No.)		Farmers (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
6	6	21	19	18	16	167	157

Training				Extension Programmes			
3		4		5		6	
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
98	68	2820	8930	662	1381	12555	29906

Seed Production (Q)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
--	--	Drumstick seedlings-2000	7564
		Mulberry seedlings-25000	8175
		Mango seedlings-1000	0

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
		Mango special-500 kg	--
		Waste Decomposer-NIL	893(units)

3.B1. Abstract of interventions undertaken

S. No	Thrust area	Crop/Enterprise	Identified Problem	Interventions										Supply of bio products				
				Title of OFT if any	Title of FLD if any	No. of Training (farmers)	No. of Training (Youths)	No. of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	No.	Kg				
1		Pole beans	Severe incidence of Yellow Mosaic Virus and Low yield	Assessment on Management of Yellow Mosaic Virus in Pole bean through Integrated Approach												Thiomethaxa Trichoderma harzianum PSB Acephate metasystox Pseudomonas fluorescens Yellow Sticky Traps Beauveria bassiana Neem soap Seaweed extract	100 gm 1 kg 1 kg 500 g 150 ml 3 l 10 1 l 2 kg 500 ml	
2		Ridge gourd	Yellow mosaic menace	Assessment on management of yellow mosaic in Ridge gourd													Neem soap Azadirachtin Yellow sticky trap Azadirachtin Phorate Neem cake Acephate Thiametoxam	2 kg 500 ml 10 no. 500 ml 5 kg 100 kg 250 g 30 g
3		Mango	Non-utilization of inter space in mango orchards	Assessment of suitable intercrops for Mango orchards													Pigeon pea Field bean Horse gram Bio fertilizers Pulse magic	5 kg 5 kg 5 kg 200 g 2 kg

S. No	Thrust area	Crop/Enterprise	Identified Problem	Interventions												
				Title of OFT if any	Title of FLD if any	No. of Training (farmers)	No. of Training (Youths)	No. of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products			
													No.	Kg		
4		Mulberry	Lack of information on better utilization of silkworm bed waste, non availability of proper technology	Assessment of different compost culture in composting of Seri farm residue		2									Seri farm residue + cow dung slurry + microbial culture	2.5 kg
															Seri farm residue + Rock phosphate + microbial culture	20 kg 2.5 kg
															Seri farm residue + Waste decomposer (2kg)	2kg
															Jaggery in 200 L water + waste decomposer)	20
															Compost bag	3 No
															Compost analysis	8 No.
5		Sericul.	Severe infestation of uzifly during rainy and winter, more defective cocoon leads to low cocoon price	Assessment of management of uzifly in silkworm rearing		2									Uzi trap	1 Sheet
															Yellow sticky trap	8 No
															Sex Pheromone trap	8 No
6		Home Sci.	Iron Deficiency	Assessment of anemia among adolescent Girls											Iron and Vitamin-C enriched nutrient cereal health Malt	100 g/trial
															6X50X6	6X300
7		Ragi	Early or mid season drought, erratic rainfall, blast and lack of awareness on use of micronutrients/biofertilizers		Introduction of Ragi variety, ML-365 for drought mitigation and delayed sowings	1									Seeds	10 kg
															Azospirillum	200g
															Carbendazim	250g
8		Horse gram	Traditional varieties, Low yield and yellow mosaic menace		Introduction of CRIDA-18 Horse gram for yield enhancement										Seeds	10 Kg
															Pulse magic	2 kg
															Rhizobium	500g
															PSB	500 g
															Soil Analysis	1 No.
9		Redgram	Phytophthora wilt, sterility mosaic Fusarium wilt and insect pest incidence		Integrated crop management in Red gram (NFSM)	1					Seeds -5 kg				Rhizobium	200 g
															PSB	200 g
															Trichoderma	50 g
															Profenophos	1000 ml
															DDVP	250 ml
															Emamectin	100 g
															Benzoate	
10		Cauliflower	Diamond back moth severity		Integrated pest management in Cauliflower										Mustard seeds	2 kg
															Light traps	2 no.
															Yellow sticky traps	10 no.
															Azadirachtin	500ml
															Spinosad	75 ml
															Ema. benzoate	100 g
															Flubendiamide	50 ml
															Cyantraniliprole	100 ml

S. No	Thrust area	Crop/Enterprise	Identified Problem	Interventions												
				Title of OFT if any	Title of FLD if any	No. of Training (farmers)	No. of Training (Youths)	No. of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products			
													No.	Kg		
11		Tomato	American pin worm, Thrips, Red mites, Fruit borer, Early and Late blight menace, indiscriminate use of PP chemicals		Integrated insect pest and disease management in Tomato	3									AMC Vegetable special Pheromone traps Y/B sticky traps Neem/Pongamia soap Mancozeb Thiamethoxam Fenamidone-mancozeb Flubendiamide Fostyl Al	2 L 3 kg 10 no. 20 no. 4 kg 2.0 kg 30 g 0.6 kg 30 ml 1.0 kg
12		Marigold	Thrips, Red mites and Bud worm menace		Integrated pest management in Marigold	1									Neem cake Blue sticky traps Neem/Pongamia soap Azadirachtin Thiamethoxam Spinosad Propergit	50 10 no. 4 kg 500ml 30 g 75 ml 500 ml
13		Tomato	Injudicious use of fertilizers, Uneven sized fruits, Discolored fruits, Blossom End Rot, Poor quality of fruits affecting marketability		Integrated Nutrient Management in Tomato	2									Trichoderma spp. Pseudomonas spp. AMC Potassium nitrate (13:0:45) Veg. Special	1 kg 1 kg 5 kg 65.25 kg 5 kg
14		Chilli	Poor nutrient management, Flower drop, Murda complex, Leaf spot, Powdery mildew and Anthracnose incidence												Trichoderma spp. Pseudomonas spp. AMC Planofix Veg. Special Fipronil Dicofol Carbendazim Mancozeb	1 kg 1 kg 1 lit 100 ml 8 kg 250 ml 500 ml 0.5 kg 0.5 kg
15		Potato	Excess haulm development at the cost of tuber, late blight, mite, tuber moth and defoliator problem		Integrated Crop Management in Potato	2									Trichoderma spp. Pseudomonas spp. Mepiquat chloride Difencconazole Mancozeb Metalaxyl + mancozeb Fenomidon+Mancozeb Cymoxanil+Mancozeb Dicofol Phosalone	1 kg 1 kg 500 ml 250 ml 1.5 kg 400 g 600 g 400 g 500 ml 400 ml
16		Cauliflower	Whiptail, Brown rot, DBM incidence and Low yield with poor quality curd		Integrated Crop Management in Cauliflower										AMC Mustard seeds Boric acid Ammonium molybdate Neem Soap DBM traps DBM lures Ema. benzoate	2 litres 2 kg 2kg 200g 4 kg 4 No. 16 No. 100 g

S. No	Thrust area	Crop/Enterprise	Identified Problem	Interventions											
				Title of OFT if any	Title of FLD if any	No. of Training (farmers)	No. of Training (Youths)	No. of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	Supply of bio products		
													No.	Kg	
17		Mango	Inadequate water conservation measures, no micro NM, poor canopy management, Improper management of P&D, fruit drop, low yield and quality of fruits		Integrated Crop Management in Mango	1								Sunhemp Fruitfly traps & Lures Mango Special Pruning secateurs Imida Wettable sulphur Lambda cyalothrin	10 kg 4 No.+ 3 lures 6 kg 1 No. 120 ml 1000 g 200 ml
18		Mango	Lack of post harvest management		Good Horticulture practices in post harvest Handling of Mango	1								Arka Mango Wash Mango harvester Ethylene gas packaging material	5 l 1 No. 3 can 100 box
19		Fodder crops	Uninterrupted supply of green fodder for milch animals		Demonstration of high yielding multicut Sorghum variety	1					Seeds- 1 kg				
20		Mulberry	Improper appln of chemical fertilizers, non utilization of biofertilizers & green manures		Integrated nutrient management in mulberry for higher productivity	1								Sunhemp seed AMC Poshan NPK & FYM	8 kg 3 ltrs 1 ltrs -
21		Sericulture	Reduced good cocoon yield due to increase in disease incidence		Effective disinfection of silkworm rearing houses to reduce defective cocoons	1								Seriswach Sanitech super Asthra Ankush Vijetha	100 gm 2.5 ltr 100 gm 6 kg
22		Home Science	Nutritional security		Demonstration of nutrition Garden for nutritional security to farm families	1					Seed Kit- 40 pack ets				

3.B2. Details of technology used during reporting period

S.No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1.	Assessment on Management of Yellow Mosaic Virus in Pole bean through Integrated Approach	IIVR, Varanasi	Pole beans	3	-	-	-
2.	Assessment on management of yellow mosaic in Ridge gourd	IIHR, Bengaluru	Ridge gourd	3	-	1	-
3.	Assessment of suitable intercrops for Mango orchards	UAS, Bangalore	Mango	3	-	-	-
4.	Assessment of different compost culture in composting of Seri farm residue	NCOF, Ghaziabad	Mulberry	3	-	3	-
5.	Assessment of management of uzifly in silkworm rearing	CSRTI Mysore	Sericulture	3	-	-	-
6.	Assessment of anemia among adolescent Girls	ICAR-KVK, Kolar	Home Science	10	-	1	-
7.	Introduction of Ragi variety, ML-365 for drought mitigation and delayed sowings	UAS, Bengaluru	Ragi	-	10	1	-
8.	Introduction of CRIDA-18 Horse gram for yield enhancement	CRIDA, Hyderabad	Horse gram	-	5	-	-
9.	Integrated crop management in Red gram (NFSM)	UAS,B	Redgram	-	25	1	-
10.	Integrated pest management in Cauliflower	UHS Bagalkot & IIHR Bengaluru	Cauliflower	-	05		-
11.	Integrated insect pest and disease management in Tomato	IIHR Bengaluru	Tomato	-	05	4	
12.	Integrated pest management in Marigold	IIHR, Bengaluru and UHS, Bagalkot	Marigold	-	05	1	-
13.	Integrated Nutrient Management in Tomato	IIHR, Bengaluru	Tomato	-	05	3	-
14.	ICM in Chilli	IIHR & UHS (B)	Chilli	-	05	-	
15.	ICM in Potato	UHS, Bagalkot	Potato		05	3	-
16.	Integrated Crop Management in Cauliflower	IIHR, Bengaluru	Cauliflower	-	05	-	-
17.	Integrated Crop Management in Mango	UHS (B) & IIHR, Bengaluru	Mango	-	05	-	-
18.	Lack of post harvest management	IIHR	Mango	-	1	-	-
19.	Demonstration of high yielding multicut Sorghum variety	TNAU	Fodder crops	-	05	1	-
20.	Integrated nutrient management in mulberry for higher productivity	CSRTI Mysore	Mulberry	-	10	2	-
21.	Effective disinfection of silkworm rearing houses to reduce defective cocoons	CSRTI Mysore	Sericulture	-	15	1	-
22.	Demonstration of nutrition Garden for nutritional security to farm families	UHS, Bagalkot	Home Science	-	1	1	-

Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total										

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

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

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

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

4.B. Achievements on technologies Assessed and Refined

4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all Technological Options in a farm)
Integrated Nutrient Management					
Varietal Evaluation					

Integrated Pest Management	Sericulture	Assessment of management of uzifly in silkworm rearing	03	03	-
Integrated Crop Management	Mango	Assessment of suitable intercrops for Mango orchards	03	03	2.4
Integrated Disease Management	Pole beans	Assessment on Management of Yellow Mosaic Virus in Pole bean through Integrated Approach	03	03	0.6
	Ridge gourd	Assessment on management of yellow mosaic in Ridge gourd	03	03	0.6
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition	Mulberry	Assessment of different compost culture in composting of Seri farm residue	03	03	-
	Home Sci.	Assessment of anemia among adolescent Girls	10	10	-
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total	6	6	15	15	3.6

4.B.2. Technologies Refined under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all Technological Options in a farm)
Integrated Nutrient Management					
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					

Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

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

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

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

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

4. C1.Results of Technologies Assessed

Crop/enterprise	Farmer's situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield	Gross Return Rs. / unit	Net Return Rs. / unit	BC Ratio (Gross income/ Gross Cost)
1	2	3	4	5	6	7	8	9	10	11	12	13
Pole beans	Irrigated	Severe incidence of Yellow Mosaic Virus and Low yield	Assessment on Management of Yellow Mosaic Virus in Pole bean through Integrated Approach	03	TO1: Imidacloprid 17.8 SL (0.1%), Thiomethaxam 25 WG (0.05%), Acetamiprid 20%SP 0.1%, Diafenthiuron 500 SC (0.1%), Acephate 0.15%	Farmers practice	21.50	t/ha	Plant height-265.67 cm No. of pods/plant-39.13 Pod length-16.4 cm	430000	248400	1.73
					T02: Seed treatment with imidacloprid (70 WG) – 5g/kg seeds, Sowing of	UAS (B)	22.70	t/ha	Plant height-267.27 cm	454000	249200	1.82

					border crop (SA Tall maize) – 35 - 40 days before sowing of pole bean, Spraying of Imidacloprid 17.8 SL (30 DAS) & Thiomethaxam 25 WG (45 DAS)				No. of pods/plan t-44 Pod length- 16.85 cm			
					TO3: Border cropping with Maize, soil application of carbofuran @ 1.5kg ai/ha, spraying with Acephate (0.15%), Imidachloprid (0.03%) and Neem seed kernal extract (2%)	IIHR, Bengaluru	24.33	t/ha	Plant height- 266.40 cm No. of pods/plan t-49.60 Pod length- 17.28 cm	486667	250100	1.95
					TO4: Seed treatment with Thiomethaxam 25 WG – 5g/kg seeds, Mulching with black silver mulch, Intercropping with two rows of border crops of maize , Soil application of Pseudomonas fluorescens along with neem cake, Installation of yellow sticky trap @ 10no/acre, Spraying of neem soap (5g/L), Salicylic acid 2mM, seaweed extract (1.5ml/L), Entomopathogenic fungus Beauveria bassiana (2ml/L) Thiamethoxam 25% WG (0.5 g/L) and Imidacloprid 17.8 SL (0.5ml/L)	IIVR, Varanasi	26.73	t/ha	Plant height- 267.67cm No. of pods/plan t-51.67 Pod length- 17.8 cm	534667	255200	2.10
Ridge gourd	Irrigated	Yellow mosaic menace	Assessment on management of yellow mosaic in Ridge gourd	3	TO1: Imidacloprid (0.05%)/ Acephate (0.1%) Lancer gold (0.2%), Spinosad (0.15%), Fipronil (0.15%), ynaxypyr (0.05%), Acetamiprid (0.05%), Thiamethoxam (0.1%), Deltamethrin (0	Farmers Practice	7.66	t/ha	Yellow mosaic-	138000	84033	2.55
					TO2: Neem cake application (250 kg/ha) Spray of Neem Soap (10g/l)/ Thiamethoxam (0.05%)/ Azadirachtin (0.3%)/ Acephate (0.1%)/ NSKE (4%) spray	IIHR, Bengaluru	8.83	t/ha	-	159000	102670	2.82

					TO3: Neem cake application (250 kg/ha) Barrier/Border crop with maize/Sorghum/Bajra Seed treatment with Thiamethoxam (5g/kg seeds) Use of yellow sticky trap (25/ac) Application of Phorate 10 G (15kg/ha in furrows) Spray of Seaweed extract (0.2%) & Salicylic acid (20 mM) Need based spray of Thiamethoxam (0.05%)/ Azadirachtin (0.3%)/ Acephate (0.1%)/ NSKE (5%)	IIVR, Varanasi		t/ha	-	189600	131628	3.27
Mango	Non-utilization of inter space in mango orchards	Assessment of suitable intercrops for Mango orchards	3	TO1:Mango	Farmer practice	Under progress						
				TO2:Mango + Pigeon pea	IIHR, Hesaraghatta	7.57	q/ha		34050	8250	1.32	
				TO3:Mango + Field bean	TNAU, Coimbatore	8.10	q/ha		26730	12163	1.84	
				TO4: Mango + Horse gram	UAS, (B)	4.10	q/ha		8200	3033	1.59	
Mulberry	Lack of information on better utilization of silkworm bed waste, non availability of proper technology	Assessment of different compost culture in composting of Seri farm residue	10	TO1:Seri farm residue + cow dung slurry	Farmers practice	755	kg	275 days	2000	5550	3.77	
				TO2:Seri farm residue + cow dung slurry + microbial culture	UAS, Bangalore	856	kg	102 days	8560	7494	8.03	
				TO3:Seri farm residue + rock phosphate + microbial culture	CSRTI, Mysore	874	kg	90 days	8740	7440	6.72	
				Seri farm residue + Waste decomposer (2kg Jaggery in 200 L water + waste decomposer)	NCOF, Ghaziabad	910	kg	75 days	9100	8075	8.87	
Sericul.	Severe infestation of uzifly during rainy and winter, more defective cocoon leads to low cocoon price	Assessment of management of uzifly in silkworm rearing	10	TO1:Fixing Nylon net on all doors and windows	Farmers practice	80.59	Kg/100 dfls	-	31027	20527	2.95	
				TO2: Nylon net + Uzi trap	CSRTI Mysore	84.78	Kg/100 dfls	27 Uzifly trapped	33912	23312	3.20	
				TO3: Nylon net + Yellow sticky trap	KSSRDI, Bangalore	89.11	Kg/100 dfls	41 Uzifly trapped	35644	24744	3.27	
				TO4: Nylon net + Sex pheromone trap	CSRTI Mysore	91.12	Kg/100 dfls	77 Uzifly trapped	36539	25479	3.30	
Home Sci.	Iron Deficiency	Assessment of anemia among adolescent Girls	10	TO1:Normal diet	Farmers Practice	-	Under Progress					
				TO2:Normal Diet + Iron and Folic acid Tablets (Dept. of Health,GOK)	Dept. of Health, GOK							
				TO3: Normal Diet +Iron and Vitamin C enriched Minor Millets Malt (ICAR-KVK,Kolar)	ICAR-KVK, Kolar	-						

OFT: Home Science: Assessment of Anemia among adolescent Girls

Development and Evaluation of Nutrient enriched health drink mix

Raw Material	Quantity (g)	Quantity (g)	Quantity (g)
Oats	100	100	100 (10)
Little Millet	300	300	300 (30)
Aonla Powder	70	60	50 (5)
Bengal gram	80	80	80 (8)
Jaggery/sugar	100	100	100 (10)
Almond	120	130	100 (10)
Cashew	60	60	100 (10)
Cardamom	10	10	10 (1.0)
Cocoa powder	60	60	60(6.0)
Milk powder	100	100	100 (10)
Total	1000	1000	1000 (100)

Physico-chemical analysis of raw ingredients used in Malt

	Little Millet	Aonla Powder	Oats	Bengal gram	Almond	Jaggery	Cashew
Moisture	3.32	4.53	5.35	5.45	4.4	5.8	5.20
Protein (g)	2.54	1.94	0.8	0.3	21.2	0.4	18.22
CHS	0.23	1.00	1.00	1.00	21.6	11.8	30.19
Vitamin-C (mg)	798	16.5	1.35	0	0	4	0.5
Iron	11.8	19.8	2.95	0.1	3.72	11	6.68
Dietary Fibre	81	79	83.6	11	12.5	1.8	3.3

Sensory quality characteristics of Iron and Vitamin C rich Nutri Cereal health drink powder

Colour	Appearance	Flavour	Texture	Taste	Overall Acceptability
7.2-0.2	7.0±0.25	6.8±0.20	7.1±0.31	6.6±0.4	6.8±0.25
6.8-0.24	6.5±0.25	6.4±0.30	7.0±0.25	6.9±0.23	6.6±0.21
7±0.24	7.0±0.25	7.5±0.30	7.5±0.22	7.4±0.22	7.1±0.24
7.6±0.45	7.7±0.42	8.0±0.33	7.6±0.26	8.1±0.31	7.8±0.43

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

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

4.D1. Results of Technologies Refined

Crop/ enterprise	Farmin g situatio n	Proble m definitio n	Titl e of OF T	No. of trial s	Technolo gy Refined	Source of technolo gy	Yiel d	Uni t of yiel d	Observatio ns other than yield	Gross Retur n Rs. / unit	Net Retur n Rs. / unit	BC Ratio (Gross incom e/ Gross Cost)
1	2	3	4	5	6	7	8	9	10	11	12	13
					TO1:							
					T.O.2							
					T.O.3							

4.D.2. Details of Technologies refined:

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

PART V - FRONTLINE DEMONSTRATIONS (2019)

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
	Pulses	Rainfed	Rabi	Horse gram	CRIDA-18	-	Crop production	Introduction of CRIDA-18 Horse gram for yield enhancement	2	2	-	5	0	5
		Rainfed	Kharif	Redgram	BRG-1	-	Crop production	Integrated crop management in Red gram (NFSM)	10	16.8	8	22	18	12
	Cereals	Rainfed	Kharif	Ragi	ML-365	-	Crop production	Introduction of Ragi variety, GPU-66 /KMR-204 for drought mitigation and delayed sowings	4	4	2	8	6	4
	Millets													
	Vegetables	Irrigated	Rabi	Cauliflower		Daval	Plant protection	Integrated pest management in Cauliflower	1	1	1	4	0	0
		Irrigated	Kharif	Tomato	-	Saho	Plant protection	Integrated insect pest and disease management in Tomato	1	1	0	5	0	0
		Irrigated	Kharif	Tomato	-	Abhinav	Nutrient Management	Integrated Nutrient Management in Tomato	1	1	1	4	0	0
		Irrigated	Rabi	Chilli	-	Vaishnavi (Mycho)	Vegetables	Integrated Crop Management in Chilli	1	1	0	5	0	0
		Irrigated	Rabi	Potato	Kufri Jyothi	-	Crop Management	Integrated Crop Management in Potato	1	1	0	5	0	0
		Irrigated	Rabi	Cauliflower		Daval	Crop Management	Integrated Crop Management in Cauliflower	1	1	0	5	0	0
	Flowers	Irrigated	Kharif	Marigold	-	Benz tall	Flower crops	Integrated pest management in Marigold	1	1	0	5	0	0
	Ornamental													
	Fruit	Rainfed	Kharif and winter	Mango	Alphonso	-	Fruit crop	Integrated Crop Management in Mango	1	1	0	5	0	5
		Rainfed	Kharif and winter	Mango	Neelum			Good Horticulture practices in post harvest Handling of Mango	-	-		1	-	-
	Spices and condiments													
	Commercial													
	Medicinal and aromatic													
	Fodder	Irrigated	Kharif	Fodder sorghum		CoFS-31		Demonstration of high yielding multicut Sorghum variety	10	06	5	25	10	20

	Plantation													
	Fibre													
	Dairy													
	Poultry													
	Rabbitry													
	Piggery													
	Sheep and goat													
	Duckery													
	Common carps													
	Mussels													
	Ornamental fishes													
	Oyster mushroom													
	Button mushroom													
	Vermicompost													
	Sericulture	Irrigated	Kharif	mulberry	-	v-1	Nutrient Management	Integrated nutrient management in mulberry for higher productivity	4	4	2	8	0	0
		Irrigated	Kharif	silkworm		FC2XFC1		Effective disinfection of silkworm rearing houses to reduce defective cocoons	-	-	3	12	0	0
	Apiculture													
	Implements													
	Others (Home Science)	-	Kharif	Nutrition garden	Krishnaprabha Kitechen garden kit	-	Establishment of nutrition garden Nutrition Education	Demonstration of nutrition Garden for nutritional security to farm families	20	20	08	12	10	10
				Milk khoa Production (EDP)	Milk		Value addition	Enhancing Farmers income through value addition of Milk (Khoa preparation)	1 group	1 group	4	1	0	0
				Ground nut chikki preparation (EDP)	Groundnut		Value addition	Economic Security thorough Labeling and branding of value added groundnut	1 group	1 group	3	2	0	0

	Fodder	Irrigated	Kharif	Fodder sorghum		CoFS-31				Demonstration of high yielding multicut Sorghum variety						
	Plantation															
	Fibre															
	Others			Sericulture						Integrated nutrient management in mulberry for higher productivity		274.81	274.80	182.10	Mulberry	

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								
Pulses	Integrated pest management	BRG-1		Rainfed	42	16.8	11.26	8.38	9.59	7.29	31.55	43164	17120	1.66	32805	7262	1.28
	Introduction of new variety in horsegram	CRIDA-18			05	2.0	6.20	4.80	5.54	4.18	32.53	11080	5560	1.99	8360	5680	1.47
Cereals																	
Millets	Introduction of Ragi variety for drought mitigation and delayed sowings	ML-365		Rainfed	10	4.0	35.20	27.8	31.6	22.9	37.99	108793	54233	1.99	79087	31293	1.65
Vegetables	Integrated Nutrient Management in Tomato		Abhinava	Irrigated	5	1	62.5	59.5	61.3	54.36	12.76	551700	301340	2.20	489240	244980	2.0
	Integrated Crop Management in Chilli		Vaishnavi	Irrigated	5	1	21.9	21.2	21.58	18.84	14.54	820040	571154	3.31	715920	470134	2.93
	Integrated insect pest and disease management in Tomato		Saho	Irrigated	5	1	71	59.5	64.5	50	29.00	603075	385575	2.76	467500	254890	2.19
	Integrated Crop Management in Potato	Kufri Jyothi		Irrigated	5	1	Under Progress										
	Integrated Nutrient Management in Cauliflower		Daval	Irrigated	5	1	Under Progress										
	Integrated pest management in Cauliflower		Daval	Irrigated	5	1	Under Progress										

FLD : Home Science: Good horticultural practices in post harvest Handling of Mango

Crop : Mango, Variety : Neelum Village: Kadadevandahalli, Srinivasapura TQ

	Taste		Colour		Aroma		Firmness		Texture	
	Conventional Ripening	Ripening chamber	Conventional Ripening	Ripening chamber	Conventional Ripening	Ripening chamber	Conventional Ripening	Ripening chamber	Conventional Ripening	Ripening chamber
2019-20	Sweet	core sour	More Green Patches and small black spots	Light pale yellow colour and less green patches	Good	Mildly good	More soft	Less soft	Attractive but not uniformly colored	Not very attractive but uniformly colored

Sensory Evaluation (Taste, Colour, Aroma, Firmness, Texture) of mango fruits Cv. Alphonso treated in low cost ripening chamber

Year	Ripening Time (No. Days)		TSS (0Brix)		Shelf life (no.Days)	
	Conventional Ripening	Ripening chamber	Conventional Ripening	Ripening chamber	Conventional Ripening	Ripening chamber
2019-20	13	5	14	18	7	12
	14	6	16	18	5	11
	13	5	16	19	6	12
Average	13	5	15	18	6	12

B:C ratio of Low cost plastic ripening chamber

Sl. no	Year	Conventional ripening (ton)	Amount	Low cost Plastic ripening chamber	Amount
1	2019-20	6	6000×60=360000	6	6000×80=480000
			360000-1450=358550		480000-11800=468200
	Net Income		468200-358550=109650,		

Demonstration of nutrition Garden for nutritional security to farm families

Thimmasandra, Bangarpet Tq., Yadahalli, Kolar Tq and Kadadevagondnahalli, Srinivasapura Tq

Table 1: Critical Inputs provided:

Particulars	Quantity (Number)
Krishna Prabha Seed kit	40
Curry leaf	20
Guava	20
Butter fruit	12
Papaya	20
Jamun fruit	20
Nugge	50
Seethapal	14
Ram pal	04
Tualasi	04

Table 2: Comparison of Vegetables production with Nutritional garden and without nutritional garden of Twenty farm Families

SI No	Crop Name	Without Nutritional Garden Production (Kg)	Nutritional Garden Production (Kg)
1	Okra	25	225
2	Tomato	-	198
3	Brinjal	15	136
4	Cucumber	-	65
5	Cluster Bean	-	78
6	Ridge Gourd	-	56
7	Bottle Gourd	-	79
8	Radish	10	180
9	Palak	25 (Bundles)	255 (Bundles)
10	Fenu greek	-	245 (Bundles)
11	Coriander	65 (Bundles)	265 (Bundles)
12	Amaranthus	80 (Bundles)	210 (Bundle s)
13	Chilli	45	123
14	Curryleaf	-	-
15	Guava	-	-
16	Butter fruit	-	-
17	Papaya	-	-
18	Jamun fruit	-	-
19	Drumstick	-	-
20	Seethapal	-	-
21	Rampal	-	-
22	Tulasi	-	-

**Farmer Field School on integrated pest management in mulberry
Results:**

Parameters	Farmer practice	Recommended practice
Initial pest incidence before spray (No/plant)	13.20	13.40
Pest incidence (15 DAS)	1.80	1.60
Pest incidence (25 DAS)	3.80	0.30
No. of adults trapped (solar insect light trap)	0	98
Leaf yield per plant (g)	1.212	1.516
Leaf yield (q/ha/crop)	93.11	110.35
Gross cost (Rs./acre)	10500	11316
Gross Return (Rs./ acre)	46555	55175
Net Return (Rs./ acre)	36055	43859
B:C Ratio (Rs.)	4.43	4.87

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Tomato		
Plant Height(cm)	139.72	130.94
No. of branches/Plant(No)	19.92	18.12
No. of fruits/plant(No)	77.96	68.68
Averages Fruit Weight(gm)	80.80	73.36
TSS(O brix)	5.18	4.52
Firmness of the Fruit(lbs)	5.41	4.65
Keeping quality of fruit(days)	20.76	18.08
Chilli		
Plant Height(cm)	90.22	81.00
No. of branches/Plant(No)	124.40	112.60
No. of fruits/plant(No)	161.64	142.24
Averages Fruit Weight of 5 fruits(gm)	25.76	22.16

Tomato	10.2	18.19
Late blight severity (PDI)	13.13	24.13
Early blight (PDI)	3.45	6.6
Leaf curl incidence (%)	0.44	1.16
Thrips incidence (no/leaf)	0.56	1.76
Mite incidence (no./leaf)	2.04	3.04
Fruit borer incidence (%)	7.48	13.84
American pin worm incidence (%)	118.08	107.36
Plant height (cm)		
Marigold	0.76	1.84
Thrips incidence (no/leaf)	0.32	1.36
Mite incidence (no./leaf)	1.92	4.76
Bud borer incidence (%)	93.66	87.52
Plant height (cm)		
Redgram		
% germination	69.6	62.3
Plant height (cm)	197.4	185.4
Pod length (cm)	6.65	5.76
No. of pods	265.6	242.4
% pod borer damage	3.26	8.94
% leaf webber incidence	6.24	12.28
% SMD	5.62	11.84
Ragi		
Plant Height(cm)	96.12	78.34
Fingers/plant(Numbers)	9.26	6.88
Tillers/pl (no)	8.46	5.62
Horsegram		
Plant height (cm)	32.6	26.4
No. of branches/plant	12.4	8.6
No. of seeds/pod	3.2	3.2
Pods/plant	48.6	36.2
% PDI	6.8	11.4
Fodder Sorghum		
Plant height (cm)	251.5	227.9
Number of tillers /plant	13.4	9.1

5.B.2. Livestock and related enterprises

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

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

** BCR= GROSS RETURN/GROSS COST

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

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

5.B.3. Fisheries

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

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

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

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

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

5.B.4. Other enterprises

Enterprise	Name of the technology demonstrated	Variety/species	No. of Demo	Units / Area (m ²)	Name of the parameter with unit	Yield			% Increase	*Economics of demonstration (Rs./unit) or (Rs./m ²)			*Economics of check (Rs./unit) or (Rs./m ²)			
						Demo				Check if any	Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
						H	L	A								
Oyster mushroom																
Button mushroom																
Vermicompost																
Sericulture	Integrated nutrient management in mulberry for higher productivity	V-1	10	-		131.59	112.08	119.97	93.74	27.98	59950	34976	2.40	46870	26220	2.27
	Effective disinfection of silkworm rearing houses to reduce defective cocoons	FC2X FC1	10	-		103.38	91.07	93.91	84.39	13.5	39913	28603	3.529	33756	22896	3.108
Apiculture																
Others (pl.specify)																

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

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										
Sericulture										
Mulberry production										
INM										
IPM										
Silkworm rearing										
INM & IPM										
Others(Specify)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production	1	18	0	18	4	0	4	22	0	22
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
Apiculture										
Others (pl.specify)										
CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	16	762	195	957	203	65	268	965	260	1225

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIAL (2019)**9.A. Production of seeds by the KVKs**

Crop category	Name of the crop	Name of the Variety	Name of the Hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)						
Oilseeds						
Pulses						
Commercial crops						
Vegetables	Amaranthus	Suvarna	-	0.10	-	-
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others (specify)						
Total						

9.B. Production of planting material by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial	Mulberry Seedlings	V-1	-	8175	32700	5
Vegetable seedlings	Drumstick seedlings	Bhagya	-	7564	75640	49
	Curry Leaves saplings	Suvasini	-	500	-	-
	Curry Leaves saplings	Local	-	100	-	-
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others(specify)						
Total						

9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity (q)	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers				
Bio-pesticide				
Bio-fungicide				
Bio Agents	Waste decomposer	893 Nos	4465	159
Others (specify)				
Total		893 Nos	4465	159

9.D. Production of livestock

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

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

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

(A) KVK Newsletter: Not published

Date of start: _____ Periodicity: _____ Copies printed in each issue: _____

(B) Literature developed/published

Item	Number
Research papers- International	2
Research papers- National	5
Technical reports	-
Technical bulletins	-
Popular articles - English	-
Popular articles – Local language	8
Extension literature(Folders)	6
Others (Pl. specify)	-
compendium	1
TOTAL	22


S.no.	Title	Authors
	Research Papers(International)	
1.	Effect of packaging material & storage period on quality of Amla & serial based extruded R-T-E snack	G.S. Chikkanna, S.K. Jha, Ambika D.S, Sadananda G.K
2.	Women empowerment through processing & marketing of Minor millets value added products: A way for doubling the farmers income	G.S. Chikkanna, K. Thulasiram, B.G.Prakash, Ambika D.S, K.R. Shashidhar


Research Papers(National)		
1.	Effective Management Strategy against Potato Late Blight incited by Phytophthora infestans	Noorulla Haveri, K. Thulasiram , K.R. Shashidhar and H.M. Santhosha
2.	Impact of Different Sources of Organic Nutrients on Chemical Composition of S-36 Mulberry and Soil under Irrigated Condition	K. R. Shashidhar, T. K. Narayanaswamy, S.N.Sudhakar and R. N. Bhaskar,
3.	Organic based nitrogen nutritional management on growth and foliar constituents of S-36 mulberry (Morusindica L.) under irrigated condition	K. R. Shashidhar, T. K. Narayanaswamy, K.S. Krishna and R. N. Bhaskar
4.	Management of Tomato late blight caused by Phytophthora infestans	Noorulla Haveri, B. Anjaneya Reddy and K. Thulasiram
5.	Effectiveness of bed disinfectants on silkworm diseases and cocoon yield under tropical conditions of Kolar district, Karnataka	Dr. Shashidhar K.R., Thulasiram K., Noorulla Haveri
Folders		
1.	Hippuneral maragalige baruva pramukha rogamattu keetagala nirvahane	Dr. Shashidhar K.R, K.Thulasiram, Dr. Noorulla Haveri, Dr. Nagaraj K.S, Dr. Raghunatha Reddy R.L.
2.	Sasya Poshane	Dr. Raghunatha Reddy R.L, Dr. Shashidhar K.R, Bhavya N
3.	Dalimbe beleyalli samgra roga nirvahnae	Dr. Noorulla Haveri, K.Thulasiram, Dr. Nagaraj K.S, Dr. Shashidhar K.R.
4.	Pramukha totagarike belegala iluvari hecchisuvalli tantragnanagalu	Dr. Nagaraj K.S, K.Thulasiram, Dr. Noorulla Haveri, Dr. Shashidhar K.R, Mr. Umeahs Naik
5.	Dalimbe beleyalli samagra keeta nirvahane	K.Thulasiram, Dr. Noorulla Haveri, Dr. Nagaraj K.S, Dr. Shashidhar K.R.
6.	Karnataka sarkaradinda Doreyuva savalattugalu	ICAR-KVK, Kolar
Popular Articles		
1.	Jackfruit production technology	Nagaraja, K.S., Noorulla Haveri and Umesh Naik
2.	Vermicompost – sustainable soil and mulberry productivity	Shashidhar, K. R. & K. Thulasiram
3.	Importance of neem in mulberry cultivation	Dr. Shashidhar k.R, K.Thulasiram
4.	Water conservation techniques in tree mulberry cultivation	Shashidhar, K.R., Nagaraja,KS, Noorullahaveri
5.	Annadata Devalaya	Dr Chikkanna G S, Dr Prashanth K M and Shri Thulasiram K
6.	Benefits of catch pits in dryland mango farming	Dr. Nagaraj K S., Thulasiram, K. and Umesh Naik
7.	Water management in Mango	Nagaraj K S., Thulasiram, K. and Umesh Naik
8.	Importance & uses of Waste decomposer in sericulture cultivation	Dr. Shashidhar K.R, Dr. Noorulla Haveri, K. Thulasiram
Compendium		
1.	Exploration of processing & value addition prospects of underutilized fruits	B.G. Prakash, Chikkann G.S, K.Thulasiram, Shivaraj. B, Dhananjay B.N Basavaraj T.B, Gowtami

10.B. Details of Electronic Media Produced

S. No.	Type of media	Title	Details
1.	CD / DVD	1. Doubling of Farm Women' Income through value addition of Minor Millet 2. Empowerment of Rural woman through ready to cook products entrepreneurship 3. Integrated farming system for sustainable income generation	Duration- 7 min.38 sec Duration- 7 min 24 sec Duration- 7 min
2.	Mobile Apps		
3.	Social media groups with KVK as Admin		
4.	Facebook account name	kvkkolar2012@gmail.com	
5.	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).

Title	1. Success story of Cultivation of tree mulberry – A boon for rainfed sericulture
Background	Sericulture is a major occupation in Kolar district of southern Karnataka. It is the most important commercial crop with high returns in the short term. The mulberry is a perennial crop, once it is transplanted, farmers can continuously carry mulberry leaf production along with silkworm rearing for about 15-20 years. Since most of the famers in Kolar district involved in cultivating mulberry in row method (3x3 feet) of planting system it requires more irrigation water. Though mulberry is the only food plant for silkworm, its production was declined over the past decades and thus economy of the farmers got affected. The probable reason for low productivity in mulberry are decreased water level in the tube wells due to the effect of inadequate rainfall, depletion of underground water table and continuous drought made it difficult in sustainable mulberry leaf production as well as silkworm rearing.
Technology	Central sericulture research and training institute, Mysore (Source) developed a cultivation practice to meet out the irrigation water, leaf yield and quality requirement of mulberry at every stage of its growth and development. As per technology raising mulberry plant in pit method with a dimension of 3 x 3 x 3 ft length, width and height and plant spacing is 10 x 10 ft. After planting, each pit is filled with organic residues like FYM, rearing bed waste, left over mulberry twigs to cover the pit and also later improve the soil moisture and fertility. For canopy management first pruning will be done after 6 months of planting at the height of 3 ft from the ground level, 4-5 active branches are maintained for tree shape with secature only. Subsequent pruning increased branches as well as leaf yield.
Intervention	Cultivation of mulberry in tree method under dry land condition technology developed by CSRTI, Mysore has been taken up in farmers field as a Front line demonstration (FLD) by Krishi Vigyan Kendra, Kolar (In the villages viz., Nayakarahalli and Venugopalapura) during 2016-17 and 2017-18 and also conducted several training programmes to address water management, yield, quality and income related issues in a view to spread the technology.
Impact	Before intervention of the technology most of the sericulture farmers in the villages cultivating mulberry in row system and getting an average leaf yield of 40.08 t/ha/yr. After intervention of tree mulberry plantation system, farmers are getting 9.94 t/ha, 42.68 t/ha and 66.34 t/ha/yr during Ist, IInd and IIIrd year of mulberry cultivation compare to row system of plantation (15.14t/ha, 43.65 t/ha and 49.71 t/ha/year respectively) . Further, leaf moisture content and leaf moisture retention were recorded maximum (73.08% and 82.10 %) compare to row system of mulberry cultivation (72.19% and 81.60%).
Horizontal Spread	In the year 2016-17 & 2017-18 the technology was demonstrated through Front Line Demonstration by KVK, Kolar covering 6 ha area and there was upsurge in area upto 200 ha covering 500 farmers in the year 2018-19 by adopting the technology which is popularized through Front Line Demonstration, training programmes and field day organized by KVK, Kolar for technology dissemination in collaboration with department of sericulture Kolar
Economic gains	The technology was demonstrated through Front Line Demonstration help the farmers in increasing the farm income. The net returns under the FLD plots (Rs. 80215/ha) increased by 21.65 per cent over the farmers practice (Rs. 65937/ha). The benefit cost ratios was recorded 3.03 compare to farmer practice 2.17. At present 500 farmers are involved in tree mulberry cultivation and getting net returns up Rs. 71,39,000/- and water saving up to 3,86,313 ltrs/ Acre during summer. Gaining additional income through intercrops upto 35,000/- per acre of tree mulberry.
Photos	

	
Title	2. Success story of In situ water conservation practice and green manuring for enhancing yield in Mango
Background	Kolar District has played a very important role in horticultural development in the state. Farmers are cultivating horticultural crops like Mango, Banana, Tomato, Potato in a most scientific way. Since the district receives a low rainfall, dry land horticulture is getting importance. Area under Mango, Sapota, Tamarind is increasing year by year. Farmers are very progressive in adoption of new technology and in introduction of new varieties/crops. Among the fruit crops Mango is the major fruit crop covering an area of 50,010 ha with a average productivity of 10 t/ha. Though Mango is regarded as remunerative crop in the district, several farmers experienced with decline in production due to flower drop, fruit drop in relation to water scarcity beside poor soil fertility.
Technology	To harvest the rain water during monsoon, a cost effective technology for in situ water conservation practice i.e..digging catch pits of dimension 6ft x 3ft x 3ft in the centre of every four trees of mango in alternative manner was implemented beside providing green manure seed like sunhemp for enriching soil nutrient status and thus to increase productivity of mango crop.
Interventions	The demonstration of catch pits for in situ water conservation and use of green manure crop for enriching soil nutrient status has been taken up in farmers field as a Front Line Demonstration (FLD) by Krishi Vigyan Kendra, Kolar (In the villages viz.,Neelatur, Y. Hosalli and Parshwaganahalli) and also conducted several training programmes to address yield, quality and income related issues in a view to spread the technology.
Impact	In the year 2015-16 the technology was demonstrated through Front Line Demonstration by KVK, Kolar covering 2 ha area and there was upsurge in area upto 20 ha covering 15 farmers in the year 2018-19 by adopting the technology which is popularized through Front Line Demonstration, training programmes y organized by KVK, Kolar for technology dissemination.
Economic gains	The technology brought the change in farmer net return compared to their previous year income. The result of demonstration showed, the net income of individual farmer 2,61,857/- in the recommended practice when compared to their previous year practice (2,06,361/-). The cost benefit ratio was also found higher (2.43) in recommended practice than farmer practice (2.14). This mode of change tend the neighbouring farmers to adopt technology in their own farm and realizing benefit and spreading of technology. A field day was also carried out in farmer field by KVK, Kolar to disseminate the information about success of demonstration.
	

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

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

10 F. Technology Week celebration during 2019:

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

Other Details

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

10 E. Recognition and Awards:

PART XI – SOIL AND WATER TEST

11.1 Soil and Water Testing Laboratory

A. Status of establishment of Lab : Soil Science lab of College of Horticulture is being utilized

1. Year of establishment : 2010
2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost	Status
1				
Total				

B. Details of samples analyzed since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	2807	2807	20542
Water Samples	1733	1733	1504
Plant samples	0	0	0
Manure samples	0	0	0
Others (specify)	0	0	0
Total	4540	4540	22046

C. Details of samples analyzed during the 2019:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	598	598	542
Water Samples	394	394	383
Plant samples	0	0	0
Manure samples	0	0	0
Others (specify)	0	0	0
Total	992	992	925

11.2 Mobile Soil Testing Kit

A. Date of purchase and current status

Mobile Kits	Date of purchase	Current status
1.	25.3.2017	-
2.		

B. Details of soil samples analyzed during 2019 and since establishment with Mobile Soil Testing Kit:

	Progress during 2019	Cumulative progress
Samples analyzed (No.)	40	80
Farmers benefited (No.)	40	80
Villages covered (No.)	30	30

11.3 Details of soil health cards issued based on SWTL & Mobile Soil Testing Kit during 2019:

Particulars	Date (s)	Villages (No.)	Farmers (No.)	Samples analyzed (No.)	Soil health cards issued (No.)
SWTL	2019	925	992	992	992
Mobile Soil Testing Kit	-	-	-	-	-

11.4 World Soil Health Day celebration

Sl. No.	Farmers participated (No.)	Soil health cards issued (No.)	VIPs (MP/ Minister/MLA attended (No.))	Other Public Representatives participated	Officials participated (No.)	Media coverage (No.)
1	120	40	Shri. Kuldeep sharma General Manager, Advertz group, Bengaluru.	1.Noble Morison, Scientist 'D', CSB, Bangalore 2.K. PRabhakar, Deputy Director of sericulture, 3. Sri. Rudrappa Marilingannavar, Deputy General Manager, Advertz group, Bengaluru. 4.Sri.Nagesh, Senior Manager, Advertz group, Bengaluru. 5. Shri. Manjunath, Reshme, Asst Director, kolar 6. Shri Ram kumar, , Asst Director, Shiddlagatta	12	News Paper 2

PART XII. IMPACT

12.A. Impact of KVK activities (Not restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)

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

12.B. Cases of large scale adoption (Please furnish detailed information for each case with suitable photographs)

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

PART XIII - LINKAGES

13A. Functional linkage with different organizations

Name of organization	Nature of linkage
KSDA	Training programmes, diagnostic field visits, surveys, meetings etc
KSDH	Training programmes, diagnostic field visits, surveys, meetings etc
Veterinary & Animal husbandry	Training programmes, diagnostic field visits, surveys, meetings etc
Sericulture	Training programmes, diagnostic field visits, surveys, meetings etc
Karnataka Milk Federation	Training programmes, diagnostic field visits, surveys, meetings etc
Dept. of Fisheries	Meetings etc
MANAGE, Hyderabad & SAMETI, (South), UAS, Bangalore	DAESI programme

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, and 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.)
Enhancing farmers income and welfare	2016-17	KAPC	10 lakhs
Enhancing farmers income and welfare	2017-18	KAPC	05 lakhs
Enhancing farmers income and welfare	2018-19	KAPC	10 lakhs
Total			25 lakhs

13C. Details of linkage with ATMA Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings				
02	Research projects	Training cum incubation unit for Entrepreneurs in processing of Amla at KVK, Kolar	-	1	-
03	Training programmes				
04	Demonstrations				
05	Extension Programmes				
	Kisan Mela	Minor millets Mela	1		
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
06	Publications				
	Video Films				
	Books	Mane, Anganawad mathu shaleye avaranadalli poushtika kaithota		1	
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				

07	Other Activities (Pl.specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

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

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

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

13F. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	Training cum incubation unit for new Entrepreneurs in processing of the indigenous Horticultural produce at Kolar	Research project	16200000	-	-

13G. Kisan Mobile Advisory Services

Month	Message type (Text/Voice)	SMS/voice calls sent (No.)						Total SMS/Voice calls sent (No.)	Farmers benefitted (No.)
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprises		
January	Text Message	9	0	0	0	0	0	9	97636
February	Text Message	5	0	0	0	0	0	5	60350
March	Text Message	9	0	0	0	0	0	9	113769
April	Text Message	3	0	0	0	0	1	4	49632
May	Text Message	5	0	0	0	0	0	5	64165
June	Text Message	4	0	0	0	0	2	6	86869
July	Text Message	5	0	0	0	0	2	7	109563
August	Text Message	4	0	0	0	0	1	5	72336
September	Text Message	7	0	0	0	0	2	9	154307
October	Text Message	5	0	0	0	0	0	5	55687
November	Text Message	12	0	0	0	0	0	12	223874
December	Text Message	4	0	0	0	0	1	5	96760
Total		72	0	0	0	0	9	81	1184948

PART XIV- PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Drumstick	2014	0.20	Bhagya	Drumstick pods	3 kg	0	120	
2	Curry leaf crop	2016	0.01	Suhasini	Leaves	61 kg	200	1830	

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Pulses									
Oilseeds									
Fibers									
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Waste decomposer	893	17860	22325	

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	

14E. Utilization of hostel facilities :NA

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

14F. Database management

S.No	Database target	Database created
1	Maintenance of Account details of KVK for the year 2019 (Cash receipts & payments)	Yes
2	Maintenance of farmers database(Training & extension activities) & Soil & water Analysis	25920
3	Maintenance of OFT & FLD farmers list	347

15.8 Micro-Irrigation

Type of Activity	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

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	SBI	Bagalkot	17867	Current a/c	30611531173	587002104	SBIN0017867
With KVK	SBI	Kolar	6029	Current a/c	34004434216	563002101	SBIN006029

16B. Utilization of KVK funds during the year 2019(Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	112.00		10685512
2	Traveling allowances	0.85		66216
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	1.20	1,34,10,528	92073
B	POL, repair of vehicles, tractor and equipments	1.50		139706
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1.00		50856
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.50		19814
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	2.90		107630
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	1.00		38768
G	Training of extension functionaries	0.25		13941
	Extension Activities	0.25		18805
	EDP(2 Nos)/Innovative activities	0.34		12630
	Soil & Water testing & issue of soil health cards	0.25		22508
	Nutrigardens	0.25		12320
	Conference on Extension/Farmers Science Congress			
H	Maintenance of buildings			
J	Library Purchase of Journal, Periodicals, News Paper & Magazines)	0.02	1400	
TOTAL (A)				
B. Non-Recurring Contingencies				
1	Works	49.86		
	a) Administrative Building(Instalment Part)			
2	Equipment including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
TOTAL (B)		49.86		
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		172.17		11282179

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2017 to March 2018	739472	434995	194555	979912
April 2018 to March 2019	979912	577618	236998	1320532
April 2019 to December 2019	1320532	319365	403155	1236742

17. Details of HRD activities attended by KVK staff

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. Anil Kumar S	Scientist (Soil Science)	Orientation Training Programme for Newly Recruited KVK Scientists	ICAR-KVK, Sutur, Mysore	16-20 September 2019
Dr. Ambika. D.S	Scientist(Plant Protection)	Orientation Training Programme for Newly Recruited KVK Scientists	ICAR-KVK, Sutur, Mysore	16-20 September 2019
Dr. Chikkanna G.S	Scientist(Hom e Science)	Orientation Training Programme for Newly Recruited KVK Scientists	ICAR-KVK, Kasaragod	23-27 September 2019
Dr. Chikkanna G.S	Scientist(Hom e Science)	Hi-tech Approaches for production & value addition of Horticultural crops in Arid & Semi arid Regions	DHRD, Swami Keshwanand Rajasthan Agricultural University, Bikaner(Rajasthan)	07-27 November 2019

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