ICAR-Krishi Vigyan Kendra,Hirehalli
Tumakuru District

Annual Report-2021

(For the Period from 01January 2021 to 31 December 2021)

ICAR-Krishi Vigyan Kendra,Hirehalli
Hirehalli,NH-48,Tumakuru District Karanataka-572168

ICAR-Indian Institute of Horticultural Research
Hesaraghatta Lake Post, Bengaluru - 560 089

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, 2021 to 31 December, 2021.

- 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		
ICAR-KRISHI VIGYAN KENDRA, HIREHALLI, NH-4, **TUMAKURU-572 168**	0816-2243175/77	-	**kvk.tumakuru2@icar.gov.in iihrkvk@gmail.com**	**https://kvktumakuru2.icar.gov.in**

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

Address	Telephone		E mail	Web Address
	Office	Fax		
ICAR-INDIAN INSTITUTE OF HORTICULTURAL RESEARCH Hesaraghatta Lake Post, Bengaluru-560 089	080-23086100	080-28466291	**director.iihr@icar.gov.in, iihrdirector@gmail.com**	**www.iihr.res.in**

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. N.Loganandhan	---	8277252099	n.loganandhan@icar.gov.in

1.4. Year of sanction: 24th March 2009

1.5. Staff position as on 31 December 2021

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M /F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	Head/Senior Scientist	Dr. N.Loganandhan	Pr. Scientist & Head	M	Agril.Extn	Ph.D. Agriculture	Level 14	1,62,300	02.08.2013	Permanent	OBC
2	Scientist/SMS	Shri K.N. Jagadish	SMS Agril.Extn.	M	Agril.Extn.	M.Sc. Agriculture	Level 11	80,900	17.11.2009	Permanent	OBC
3	Scientist/SMS	Shri P.R.Ramesh	SMS Soil Science	M	Soil Science	M.Sc. Agriculture	Level 11	80,900	17.11.2009	Permanent	OBC
4	Scientist/SMS	Shri Prashanth J.M	SMS Horticulture	M	Horticulture	M.Sc. Agri Horticulture	Level 11	80,900	24.11.2009	Permanent	Others
5	Scientist/SMS	Dr. B. Hanumanthe Gowda	SMS Plant Protection	M	Plant Protection	M.Sc. Agriculture	Level 11	80,900	02.12.2009	Permanent	Others
6	Scientist/SMS	Smt. RadhaR.Banakar	SMS Home Science	F	Home Science	M.Sc. Home Science	Level 11	80,900	05.12.2009	Permanent	Others
7	Scientist/SMS	Dr. Somashekar	SMS Plant Breeding	M	Plant Breeding	M.Sc. Agriculture	Level 11	80,900	07.12.2009	Permanent	Others
8	Programme Assistant (Computer)	Shri.N.Jayasankar	Assistant Chief Technical Officer (Comp. –Lab.)	M	Computer Application	MCA	Level 11	76,200	15.06.2017	Permanent	OBC
9	Programme Assistant (Lab Tech.)	Shri Shashidhara K N	Senior Technical Assistant (Lab.)	M	Crop Physiology	M.Sc. Agriculture	Level 6	44,900	17.10.2012	Permanent	SC
10	Programme Assistant/ Farm Manager	Shri. Sanna Manjunath	Farm Manager	M	Agronomy	M.Sc. Agriculture	Level 7	52,000	29.06.2020	Permanent	OBC
11	Assistant	Shri. G.S. Ramakrishna	LDC	M	-	Diploma in Horticulture	Level 3	27,900	01.06.2018	Permanent	OBC
12	Jr. Stenographer	Smt.VedaKurnalli	Jr.Stenographer	F	Stenographer	DCP	Level 4	35,400	17.02.2010	Permanent	Others
13	Driver - 1	Sri M.H.Ningappa	Driver	M	Driver	S.S.L.C.	Level 3	32,300	30.12.2009	Permanent	ST
14	Driver - 2	Vacant	-	-	-	-	-	-	-	-	-
15	SS-1	Vacant	-	-	-	-	-	-	-	-	-
16	SS-2	Vacant	-	-	-	-	-	-	-	-	-

1.6. Total land with KVK (in ha):….ha

S. No.	Item	Area (ha)
1	Under Buildings	1.7
2.	Under Demonstration Units	2.95
3.	Under Crops	2.3
4.	Orchard/Agro-forestry	9.85
5.	Others	0

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	20.09.2012	283	5199683			
2.	Farmers Hostel	ICAR	20.09.2012	305	6000000			
3.	Staff Quarters							
	1							
	2							
4.	Demonstration Units							
	1 Animal Shed	RFS-KVK	04.01.2018	300	99,800			
	2 Shade net	RFS-KVK	26.12.2017	196	40,000			
	3 AMC Liquid Unit	RFS-KVK	08.10.2017	-	95,000			
5	Fencing							
6	Rain Water harvesting system							
7	Threshing floor							
8	Farm godown							
9	Solar lights	IIHR	03.03.2018	-	6,46,713			
10	Toilet at farm	IIHR	01.01.2018	-	3,96,000			
1.	Administrative Building							
2.	Farmers Hostel							
3.	Staff Quarters							
	1							
	2							

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Bolero Diesel Jeep	2009	5,96,783	335888	Good
Motor Cycle	2010	52,658	63883	Good
Honda – Aviator	2010	46,025	42980	Good
Power Tiller	2010	1,42,400	76 Hours	Good
Tractor – MF Furgison	2011	5,60,000	528 Hours	Good
Tractor – Swaraj	2019	6,53,000	400 Hours	Good
Tractor – Mini Sonalika	2019	3,63,000	328 Hours	Good

C) Lab equipment & AV aids

Name of the equipment	Year of purchase	Quantity (No.)	Cost (Rs.)	Present status
Xerox Machine	2010	01	67,262	Good Condition
White Board with Stand	2010	01	1,500	Good Condition
LCD Projector with Accessories	2010	01	1,00,000	Good Condition

LCD Projector with Accessories	2018	01	45,000	Good Condition
LED TV	2017	01	64,000	Good Condition
Public Address System	2017	01	20,000	Good Condition
R.O.S system	2017	01	72,000	Good Condition
Solar Hot Water System	2017	01	72,000	Good Condition

D) Farm equipment and implements

Name of the equipment/implement	Year of purchase	Quantity (No.)	Cost (Rs.)	Present status
Solar Pump sets	2019	02 Sets	13,79,922	Good Condition
Dhal Mill	2019	01	2,49,750	Good Condition
Flour Mill	2019	01	1,35,000	Good Condition
Multi crop thresher	2019	01	4,93,000	Good Condition
Mini tractor	2019	01	1,85,000	Good Condition
Big tractor	2019	01	6,61,696	Good Condition
Power tree trimmer	2019	01	74,000	Good Condition
Shrub master	2019	01	70,000	Good Condition
Cultivator	2019	01	48,000	Good Condition
Bund former	2019	01	49,000	Good Condition
Power weeder (Brush cutter)	2019	03	1,44,000	Good Condition
Rotovator	2019	02	90,000	Good Condition

1.8. Details of SAC meeting organized

Date	Number of Participants	Salient Recommendations	Action taken	Remarks, if any
10.03.2021	50	**Dr.M.R.Dinesh, Ex-Director, ICAR-IIHR, Bengaluru** 1. 'Arka Bhagavani app' need to be popularized among farmers to get awareness on POP of horticulture crops 2.Farmers and traders can get benefitted by registering 'Arka Vyapar App' for marketing their products 3. ICAR-IIHR Seed portal can be utilized by the farmers for procurement of seeds directly to their doorsteps	Information on the mentioned Apps and Seed portal were shared among the participants in the trainings (26 in no.), Field days (6 in no.), and lectures (19 in no) and other capacity development programmes organized during this year. A poster on IIHR Seed portal has been displayed at the main Notice Board for the farmers and other customers to get benefitted	
		4.KVK has to conduct Field Days, covering the improved technologies of ICAR-IIHR.	Six field days were organized covering the improved technologies of ICAR-IIHR	
		5. Rural Youth (Especially form SC/ST community) can get support in entrepreneurial activities by taking technological backstopping from ICAR-IIHR (Eg. Chocolates from Jackfruit seed powder etc.,)	Information has been shared during the capacity development programmes as mentioned above.	License and machinery cost being high, it was requested to bear the cost under any specified projects
		Dr. M. Byre Gowda, Ex-Director (Extension), UAS Bengaluru 6.Advisory services, Diagnostic field visit and Marketing support may be made available in digital mode to the farmers	About 2,400 persons (farmers, farm women and extension agents) were given advisory services over phone, 20 diagnostic field visits were made, in some of which the initial advices were made on video-call mode	

		7.New varieties tested under OFT, need to be ensured to add in seed chain, if found suitable by the farmers for the region	DGRMB-24 and DGRMB-32 are two drought tolerant groundnut varieties released from DoGR, Junagarh. These are highly promising as per farm trails conducted and results will presented during forth coming ZREAC and ZREFC meeting	
		8.Apps of GKVK on various crop management and toll free advisory numbers may be utilized by the farmers	App like Bheej Aadhar and Toll free No & WhatsApp No. 1800 4250 571 & 9482477812 are being shared among farmers and displayed in the Notice Board	
		9.Popularization of Pusa Mustard varieties shall be executed as intercrop among Finger millet	DDA (Tumakuru Division) has been linked to concerned Scientists for Mustard bio-fortified varieties Pusa 28, 29 and 30. As the seeds are in much demand, initial seed production activities were suggested during Rabi season, in collaboration with KoF and later to be intercropped along with Finger Millet during Kharif	
		Dr. Niranjan Murthy, ADR, UAS Bengaluru 10.Amaranthus shall be taken under Nutri-garden project	Ten families were provided with minimum quantity of seeds under Nutri-garden project in previous years (2019-2020)	Preference for leaves was more than that of grains
		11. KVK can make a booklet on schemes of State and Central Government	A booklet was released in the year 2019. Revised edition, including PM Kisan Samman Nidhi scheme is ready for publication.	
		Dr.Rajendra Hegde, Head, NBSS & LUP, Bengaluru 12.Capacity Development Programmes need to be organised on soil and water conservation by explaining various soil maps	Five trainings were conducted for farmers and DAESI Students at Chikkadodavadi, Halagondanahalli, D.Nagenahalli covering 225 farmers	
		13. Awareness to increase organic carbon content in soil need to be provided to the farmers	Six trainings were conducted for farmers and students covering 336 farmers at Bommanahalli, Chikkadodavadi, Bevinapalya, Thovinakere. Telecast of programme on importance of green manuring crops in dry land horticulture crops in DD Chandana, in which 107 farmers were covered.	
		Other general suggestions		
		Dr. Mallikarjuna Hanji, Nodal Officer, ATARI, Bengaluru 1.KVK is meant for front line demonstration only and staff from Agriculture and Horticulture departments shall involve in first line demonstration	About 14 FLDs are being carried out in the year 2021-22. Appropriate ones shall be implemented by state department as first line demonstration	
		Sri. Raghu, ORDER NGO, Tumakuru: 2. For NGOs/FPOs, about 15-20% discount from the rate may be given to IIHR products.	About 10% discount is given for FPOs and any farmer, for the products purchased above Rs.10,000	
		Sri.Ravish, Organic farmer : 3.KVK should provide all types of fruit crops seedlings to the farmers	All the locally relevant fruit crops seedlings based on farmers' needs are being provided	

		Sri. Anand, Avishakar NGO: 4.Standardized POP for Organic farming technologies need to be made available for the farmers	From ICAR side, standard POP for Natural Farming is getting ready. Organic practices documented from IIHR and UAS-B are shared to the concerned farmers	
		Dr. Balakrishna, DD (Sericulture): 5.Sericulture based IFS model can be much remunerative to the farmers. KVK shall develop a demo unit on tree mulberry model at KVK farm.	Farmers are given appropriate knowledge on tree mulberry model in the adopted villages (Eg.D.Nagenahalli). However, at KVK farm, this model is yet to be initiated	Once unit on silkworm rearing is established, this model will be implemented

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	Dry Land Agriculture
2	Dry Land Horticulture
3	Dairy

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

S. No	Agro-climatic Zone	Characteristics
1.	Central Dry Zone (Zone IV) Taluks: Koratgere, Madhugiri, Sira, Pavagada	• This zone covers an area of 4.74 Lakhs hectare • The Annual rainfall ranges from 454 and 718 mm, of which more than 55% received in Kharif season. • The elevation ranges from 639 and 1197m • Soils are red sandy loams in major areas, shallow to deep black in remaining areas. The major crops grown are Ragi, Paddy, Redgram, Groundnut, Sunflower, Coconut, Arecanut, Mango, Banana, Tomato, Brinjal, Beans, Peas, Aster, Dairy
2.	Eastern Dry Zone (Zone V) Taluk: Tumakuru	• This zone covers an area of 1.04 Lakh hectares. • The Annual rainfall ranges from 679 and 889 mm, of which more than 50% received in Kharif season. • The elevation is 818 m from sea level. • Soils are red loamy in major areas, shallow to deep black in remaining areas. • The major crops grown are Groundnut, Maize, Paddy, (a) Ragi, Redgram, Tomato, Brinjal, Mango, Sapota, Arecanut, Coconut, Aster, Dairy etc.,

S. No	Agro ecological situation	Characteristics
1	Agro eco sub region-1	Hot moist, semi-arid ESR with LGP 150-180 days (LGP-length of growing period)

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Red Sandy Loam	• Colour given by hematite's or Yellow limonite's • Poor in soil fertility • Low base exchange capacity • Deficient in organic matter • Low water holding capacity • The pH ranges from 5.5.-6.5 Low cohesion, plasticity & swelling	6,15,230
2.	Red Loam	• Colour given by oxides of iron • Poor in soil fertility • Low- medium Base Exchange capacity • Deficient in organic matter • Low water holding capacity • The pH ranges from slightly acidic or neutral (a) Low cohesion, plasticity & swelling	2,04,093
3.	Shallow Black Soil	• Colour varying from dark brown to dark yellowish brown	2,45,432

		• Soil with more than 35 per cent clay and crack when it is dry • High soil fertility • High base exchange capacity • High organic matter content • High water holding capacity • The pH ranges from 7.5 -8.5 (b) High cohesion, plasticity & swelling	

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

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
1	Paddy	4,858	37,064	2,993
2	Maize	20,122	56,200	2,323
3	Ragi	1,44,547	2,19,246	1,496
4	Minor Millets	2,929	3,14,003	1,698
5	Rad gram	10,963	3,740	359
6	Horse gram	16,254	8,266	481
7	Field bean (Avare)	6,251	3,456	599
8	Ground nut	55299	31,016	454
9	Coconut	1,45,660	12,53,548 (1000 nuts)	9,000 Nos
10	Areca nut Processed	32,341	2,81,840	9,705

* Source: Tumakuru District at a Glance 2017-18

2.5. Weather data

Month	**Rainfall (mm)**	**Temperature ^{0} C**		**Relative Humidity (%)**
		Maximum	**Minimum**	
January 2021	19	35.5	-	January 2021
February 2021	23	39.6	10.3	February 2021
March 2021	0	42.0	11.3	March 2021
April 2021	65	46.6	16.6	April 2021
May 2021	88	42.3	-	May 2021
June 2021	92.9	46.2	4.6	June 2021
July 2021	110.9	36.4	13.1	July 2021
August 2021	113	35.3	4.2	August 2021
September 2021	44	36.3	-	September 2021
October 2021	296	40.0	17.0	October 2021
November 2021	229	34.9	11.4	November 2021
December 2021	28	34.9	10.0	December 2021

* Source: KSNDMC, Bengaluru

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

Category	**Population**	**Production**	**Productivity**
Cattle			
141190	141190	141190	141190
446636	446636	446636	446636
241607	241607	241607	241607
Sheep			
6565	6565	6565	6565
1061132	1061132	1061132	1061132
517763	517763	517763	517763
144	144	144	144
7631	7631	7631	7631
121	121	121	121
Poultry			

711273	711273	711273	711273

Category	Area	Production	Productivity
Fish	-		
Marine	-		
Inland	-	9251.59 metric ton	-
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 2021: Yes

2.8 Details of Operational area / Villages

Sl.No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Koratagere Tumakuru Pavagada	Kolala Pavagada	Vaddarahalli Pallavalli Veerammanahalli	2 2 2	Tomato	Leaf curl, Late blight, wilting Low yield and Low storability	ICM
2	Madhugiri Sira	Doddere Bukkapattana	K P Halli Hosahalli	2 2	Onion	Non availability of Rabi varieties, Poor storability	New varieties
3	Sira, Koratagere Madhugiri	Bukkapattana Kolala Doddere	Karemadanahalli Tanaganahalli Rangapura	2 3 3	Foxtail millet	Use of Local varieties, Lack of Knowledge on High yielding varieties and lack of knowledge on processing and value addition	New varieties, Value addition
4	Pavagada	Doddenahalli	Doddenahalli Bydanuru	2	Tuberose	Small size flowers, less shelf life & low yield	New Variety
5	Koratagere Madhugiri Sira	Kolala Doddere Bukkapattana	Chikkadoddawadi Rangapura Karemadanahalli	2 3 2	French bean	Mosiac disease, Rust, local varieties low yield	ICM
6	Sira Madhugiri Koratagere	Bukkapattana Doddere Kolala	Karemadanahalli Rangapura Chikkadoddawadi	2 3 2	Nutrition garden	Lack of knowledge on nutrition garden and nutrition insecurity	Food and Nutrition Security
7	Sira Koratagere Madhugiri,	Bukkapattana Kolala Doddere	Karemadanahalli Chikkadoddawadi Rangapura	2 2 3	Ragi	Low yield, Less acceptability of value added products from existing varieties due to brown colour	ICM & Value addition
8	Sira Madhugiri Pavagada	Bukkapattana Doddere Veeramanahalli	Karemadanahalli Rangapura Veeramanahalli	2 3 2	Chilli	Low yield, Local varieties Imbalanced nutrition, Disease incidence – Mosaic virus susceptible	ICM
9	Pavagada	Venkatapura	venkatapura	3	Pomegranate	Bacterial blight, leaf spot disease, sucking pest problem	ICM
10	Sira Madhugiri Koratagere	Bukkapattana Doddere Kolala	Karemadanahalli Rangapura Chikkadoddawadi	2 2 2	Paddy	Water stress, Neck blast, nutrient deficiency, weeds, Non awareness about aerobic paddy, Rat menace	ICM
11	Sira Madhugiri Koratagere	Bukkapattana Doddere Kolala	Karemadanahalli Rangapura Chikkadoddawadi	2 3 2	Fodder	Non availability of suitable fodder crop for higher yield	New Varieties
12	Madhugiri	Dodderi	Rangapura	3	Tamarind	Lack of knowledge on processing and value addition, low income	PHT
13	Sira, Koratagere Madhugiri	Bukkapattana Kolala Dodderi	Karemadanahalli Chikkadoddawadi Rangapura	2 2 3	Brown Top Millet	lack of knowledge on processing and value addition	Processing & Value addition

2.9 Priority thrust areas

S. No	Thrust area
1.	High Yielding varieties / Hybrids
2.	Seed treatment with Bio fertilizers and fungicides

3.	Soil test based fertilizer application
4.	Integrated Cropping Management
5.	Integrated Nutrient Management
6.	Integrated Pest & Disease Management
7.	Intercropping / Mixed / Multistoried cropping system
8.	Seed Production Techniques in Vegetables and field crops
9.	Post harvest technology in Vegetables and Fruits
10.	Soil and Water Conservation
11.	Drudgery Reduction among women
12.	Income Generating Activities and Value Addition
13.	Child and Women Care and balanced nutrition

PART III - TECHNICAL ACHIEVEMENTS

3.A. Target and Achievements of mandatory activities

OFT				FLD			
1				2			
OFTs (No.)		Farmers (No.)		FLDs (No.)		Farmers (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
04	04	12	12	14	14	125	125

Training (Farmers/farm women)				Training (Rural youth)			
3				4			
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
37	**22**	**1095**	**750**	11	5	520	123

Training (Extension personnel)				Training (sponsored)			
5				6			
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
7	**1**	**160**	**22**	2	1	40	33

Training (Vocational)				Extension Programmes			
7				8			
Courses (No.)		Participants (No.)		Programmes (No.)		Participants (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
1	**0**	**20**	**0**	267	298	109800	23723

Seed Production (Q)		Planting material (Nos.)	
9		10	
Target	Achievement	Target	Achievement
36	37.70	82000	82059
Mushroom Spawn - 10	13		

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
11		12	
Target	Achievement	Target	Achievement
Sheeps	21	Neem Soap-2500 Kgs	3393 Kgs
Cows	6	Pongamia soap-1000 Kgs	1440 Kgs
Others		Arka Borer Controller-600 Kgs	958 Kgs
Amla Candy - 100 Kg.	43 Kg.	Banana special 2000kg	7,526
Amla Squash - 500 Ltrs.	220 Ltrs.	Mango special 2000kg	2,259
Ragi Malt - 100 Kg.	95 Kg.	Vegetable special 1500kg	8,398
		Citrus special 1500kg	3,713
		AMC Powder 2000kg	2,256
		AMC Liquid 2000litre	3,238 lit
		Fruit fly trap 3000nos	18,601

Soil, water, plant and manure analysis (including mobile kits)				Mobile agro advisories provided			
13				14			
Samples (No.)		Farmers (No.)		Messages including text, voice (No.)		Farmers (No.)	
Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
750	1,211	500	999	96	19	1945	1945

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	
													No.	Kg
01	Variety Evaluation	Chilli	Private hybrids are susceptible to Leaf curl (40%), Wilt & Powdery Mildew diseases (20%), low quality and low yield Lack of awareness on High yielding and disease resistant hybrids in chilli.	Assessment of Chilli hybrids for disease resistant and Higher productivity	-	0	0	0	06	0.018	0	0	0	0
02	ICM	Chilli	Low yield, Local varieties , Imbalanced nutrition, Disease incidence – Mosaic virus susceptible	-	ICM in Chilli	1	0	0	09	0.0015	0	0	0	5 litrs 10 kg
03	ICM	French Bean	Low yield, Use of local varieties, Non use of disease resistance varieties, Improper Nutrient Management	-	ICM in French Bean	1	1	0	07	0.40	0	0	0	30 kg 10 kg
04	HYV	Tuberose	Small size flowers, Less shelf life (days) Low yield	-	Demonstration of Tube rose variety Arka Prajwal	0	0	0	06	3.60	0	0	1	10 kg

05	ICM	Chilli	Low yield, Local varieties , Imbalanced nutrition, Disease incidence – Mosaic virus susceptible	-	ICM in Chilli	1	0	0	09	0.0015	0	0	0	5 litrs 10 kg
06	ICM	French Bean	Low yield, Use of local varieties, Non use of disease resistance varieties, Improper Nutrient Management	-	ICM in French Bean	1	1	0	06	0.40	0	0	0	30 kg 10 kg
07	ICM	Groundnut	Lack of drought tolerant HY varieties	Assessment of Drought tolerant and High yielding varieties in Groundnut	-	1	1	0	08	40 kgs	0	0	0	300 kgs
08	ICM	Tomato	Tomato Leaf Curl Disease, Bacterial wilt, Early blight Late blight and low yield	-	Integrated Crop Management in Tomato	1	1	0	06	0.0040	0	0	10 No.s	6 Kg 5 Kg
09	Value addition	Foxtail	Reduction in area under minor millets due to lack of knowledge on nutritional value and non availability of processing units	-	Demonstration of Foxtail millet Variety DHFt 109-3 for Value Addition Seeds 10kg/ha. FYM 6.25 t/ha. RDF 40:40:0 NPK kg/ha.	0	0	0	05	0.005	0	0	0	0
10	Value addition	Brown top millet	Reduction in area under minor millets due to lack of knowledge on nutritional value and non availability of processing units	-	Demonstration of brown top millet for Value Addition Seeds 10kg/ha. FYM 6.25 t/ha. RDF 40:40:0 NPK kg/ha.	0	0	0	05	0.005	0	0	0	0
11	organic farming	**Pomegranate**	Severe incidence of blight and wilt. High cost, Lower yield and poor quality	**Assessment of bio formulations for improving productivity, quality and management of diseases in Pomegranate**	-	1			1	0	0	0	0	ACT-25KG AMC-22litre IFFCO-15 litre
12	ICM	**Ragi**	Lack of high yielding varieties. Finger millet blast and low yield	-	**Enhancement of Productivity of Finger millet by short duration var. KMR-630**	2	0	0	0	60kg	0	0	0	25kg
13	ICM	**Aerobic paddy**	**Water scarcity Low income High cost of cultivation Low nutritional variety**	-	**Demonstration of water saving Aerobic Paddy Paustic-9**	2	0	0	0	100kg	0	0	0	25kg

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
01	Demonstration of Foxtail millet Variety DHFt 109-3 for Value Addition	UAS Dharwad	DHFT-109 -3 Foxtail millet	-	10	0	0
02	Demonstration of Brown Top Millet for Value Addition	ITK	Brown top millet	-	10	0	0
03	Assessment of bio formulations for improving productivity, quality and management of diseases in Pomegranate	IIHR Bengaluru	Pomegranate	1	0	1	0
04	Enhancement of Productivity of Finger millet by short duration var. KMR-630	UAS, Bengaluru	Ragi	-	6	2	0
05	Demonstration of water saving Aerobic Paddy Paustic-9	UAS, Bengaluru	Aerobic paddy	-	6	2	0
06	Assessment of Chilli hybrids for disease resistant and Higher productivity	IIHR Bengaluru	Chilli	1	0	0	0
07	Demonstration of Tuberose variety Arka Prajwal	IIHR, Bengaluru	Tuberose	-	1	0	0
08	Demonstration of Chilli Variety Arka Harita	IIHR Bengaluru	Chilli	-	05	01	0
09	Demonstration of in French Bean variety Arka Arjun	IIHR Bengaluru	French bean	-	05	01	0

3.B2 contd..

No. of farmers covered															
OFT				FLD				Training				Others (Specify)			
General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
-	-	-	-	**3**	**1**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
-	-	-	-	**2**	**2**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
03	0	0	0	0	0	0	0	23	5	0	0	0	0	0	0
0	0	0	0	09	01	0	0	46	11	0	0	0	0	0	0
0	0	0	0	08	02	0	0	37	08	0	0	0	0	0	0
02	0	01	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	04	0	0	01	0	0	0	0	0	0	0	0
0	0	0	0	04	0	01	0	15	05	02	0	0	0	0	0
0	0	0	0	03	0	02	0	12	0	04	0	0	0	0	0

PART IV - On Farm Trial

4.A1. Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management										
Varietal Evaluation		01								01
Integrated Pest Management										
Integrated Crop Management								01		01
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										
Cropping Systems										
Farm Mechanization										
Mushroom cultivation										
others										
Total		01						01		02

4.A2. Abstract on the number of technologies refined in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
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										
Cropping Systems										

Farm Mechanization										
Mushroom cultivation										
Others										
Total										

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)						
TOTAL						

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)						
TOTAL						

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	Groundnut	Drought tolerant and High yielding varieties in Groundnut	3	3	1.2
	Chilli	Assessment of Chilli hybrids for disease resistant and Higher productivity	3	3	0.6
Integrated Pest Management					
Integrated Crop Management					

Integrated Disease Management	Pomegranate	Assessment of bio formulations for improving productivity, quality and management of diseases in Pomegranate	3	3	1
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			9	9	2.8

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					

Post Harvest Technology/Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Cropping Systems					
Farm Mechanization					
Others, Pl specify					
Total					

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				
Processing and Value addition				
Production and management				
Feed and fodder management				
Small scale income generating enterprises				
Others, pl. specify				
Total				

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				
Processing and Value addition				
Production and management				
Feed and fodder management				
Small scale income generating enterprises				
Others, pl. specify				
Total				

4.B.5. T**echnologies assessed under various enterprises by KVKs**

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

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

4.B.6.T**echnologies assessed under various enterprises for women empowerment**

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

4.C1. Results of Technologies Assessed

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield	Gross Return Rs. / unit	Net Return Rs. / unit	BC Ratio (Gross income/ Gross Cost)
1	2	3	4	5	6	7	8	9	10	11	12	13
Chilli	Irrigated	Private hybrids are susceptible to Leaf curl (40%), Wilt & Powdery Mildew diseases (20%), low quality and low yield Lack of awareness on High yielding and	Assessment of Chilli hybrids for disease resistant and Higher productivity	03	T.O.1 (Farmers practice)-Demon	Pvt com.	16.42	t/ha	Chlcv disease incidence (%) 12.85	2,46,300	1,34,140	2.20

		disease resistant hybrids in chilli.										
					T.O.2- Arka Tanvi	IIHR, Bengaluru	18.92	t/ha	Chlcv disease incidence (%) 8.10	2,83,800	1,76,650	2.65
					T.O.3- Arka Gagan	IIHR, Bengaluru	19.32	t/ha	Chlcv disease incidence (%) 6.12	2,89,800	1,84,150	2.74
Groundnut	Rainfed	Lack of drought tolerant HY varieties	**Assessment of Drought tolerant and High yielding varieties in Groundnut**	03	T.O.1 (Farmers practice) :K-6	ZARS, Kadri	7.90	Qtls	Germination (%), Days to Flowering, Number of Pegs/plant, No. of Days taken for harvesting	40211	15290	1.62
					T.O.2:DG MRB-24	DOGR, Junagarh	10.33	Qtls		52563	27688	2.12
					T.O.3:DG MRB-32	DOGR, Junagarh	9.85	Qtls		50153	24062	1.92
					T.O.2:Kadri Lepakshi	ZARS, Kadri	11.79	Qtls		60028	32843	2.21
Pomegranate	Irrigated	Severe incidence of blight and wilt. High cost, Lower yield and poor quality	**Assessment of bio formulations for improving productivity, quality and management of diseases in Pomegranate**	03	TO1 (FP)	Pvt bioefrtilizer	7.4	t/ha	Incidence of blight and wilt (%)			
					TO2 RP Aspergillus niger+ pseudomonas + VAM	NRCP, Solapur	8.7	t/ha	Incidence of blight and wilt (%)	5,14,300	3,81,850	3.88
					TO3 AP Actino plus +AMC	IIHR, Bengaluru	8.9	t/ha	Incidence of blight and wilt (%)	6,04,650	4,98,970	5.72
					TO 4 AP IFFCO Biofertilizer	IFFCO	7.8	t/ha	Incidence of blight and wilt (%)	6,18,550	5,18,300	6.17

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
Demon, Arka Tanvi and Arka Gagan	Arka Gagan and Arka Tanvi chilli hybrids recorded less percent of Chlcv disease incidence. Arka Gagan (H 30) was recorded highest yield and pungency is very High	Nil
Assessment of Drought tolerant and High yielding varieties in Groundnut	**Highly suitable for erratic rainfall. Medium duration and bold seeded and potentially high yielding varities**	-
Aspergillus niger+ pseudomonas + VAM Actino plus +AMC	Farmers' feedback was that the application of AMC + ACT and drenching with Aspiriligus niger + Pseudomonas + VAM were reduced the disease incidence and improved the fruit quality compare to that of farmer practice and IFFCO biofertilizer treatment.	Nil

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

1. Title of Technology Assessed: Assessment of Chilli hybrids for disease resistant and higher productivity

2. Performance of the Technology on specific indicators: Arka Gagan (H 30) chilli hybrid recorded less percent of Chlcv disease incidence and recorded highest yield and pungency.

3. Specific Feedback from farmers: Arka Gagan hybrid yielded more, pungency is high as compared to Demon and Arka Tanvi

4. Specific Feedback from Extension personnel and other stakeholders: Chilli hybrid recorded less percent of Chlcv disease incidence compared to Demon even there is a damage caused by heavy rainfall.

5. Feedback to Research System based on results and feedback received: Arka Gagan and Arka Tanvi chilli hybrids recorded less percent of Chlcv disease incidence. High pungency with medium to upright segment

6. Feedback on usefulness and constraints of technology: Nil

OFT - Assessment of Chilli hybrids for disease resistant and higher productivity

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
6. Feedback on usefulness and constraints of technology

1. Title of Technology Assessed: **Assessment of bio formulations for improving productivity, quality and management of diseases in Pomegranate**
2. Performance of the Technology on specific indicators: **Application of Arka action plus and AMC has been recorded blight incidence by 14.2% and wilt incidence by 1.3% and average weight of fruit is 384gm**
3. Specific Feedback from farmers: **Farmers' feedback was that the application of AMC + ACT and drenching with Aspiriligus niger + Pseudomonas + VAM were reduced the disease incidence and improved the fruit quality**
4. Specific Feedback from Extension personnel and other stakeholders**: Application of liquid AMC + ACT increased the fruit yield, reduced the disease incidence and improved the fruit quality**
5. Feedback to Research System based on results and feedback received: Reduced the cost of cultivation by Rs.32, 200/- per ha by application of AMC and ACT.

6. Feedback on usefulness and constraints of technology: **Nil**



OFT-Assessment of bio formulations for improving productivity, quality and management of diseases in Pomegranate

4.D1. Results of Technologies Refined

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

4. D2. Feedback on technologies refined

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

4.D.2. Details of Technologies refined:

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

PART V - FRONTLINE DEMONSTRATIONS

5.A. Summary of FLDs implemented

Sl. No.	Category	Farming Situation	Season	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ ST	Others	Small / Marginal	Others
	Oilseeds													
	Pulses													
	Cereals													
1		Rainfed	Kharif	Ragi	KMR-630	-	ICM	KMR-630 Seeds 12.5 kg/ha. Red gram seeds (intercrop) – 5 kg/ha Bio-fertilizer (AMC)-1Kg FYM-10 t/ha. RDF - 50:37:40 NPK kg/ha Zinc Sulphate – 12.5 kg /ha. Borax - 10kg / ha	04	04	01	09	08	02
2		Irrigated	Kharif	Paddy	Aerobic paddy-Paustic-9	-	ICM	Aerobic Paddy seeds - 15 kg/ha, FYM - 10 ton/ha, Biofertilizer – 0.5 kg/ha, RDF - 100:50:50 NPK kg/ha, Borax - 8 kg/ha, Zinc sulphate – 20 kg/ha	04	04	02	08	08	02
	Millets													
3	Vegetables	Irrigated	Summer	Tomato	-	Arkaab	Enhancement of	Demonstration of Arka Abedh :	2	2	0	0	5	0

						ed h	product ivity	F1 Hybrid resistant to Tomato Leaf Curl, Bacterial wilt, Early blight and Late blight						
4		Irrig ated	Rabi	Fren ch Bea n	Arka Arjun	-	ICM	Arka Arjun AMC: 20g /lit Vegetable Special- 2gm /lit & Neem soap : @ 7 g/lit	1	1	2	3	5	0
5		Irrig ated	Rabi	Chill i		Ark a Har ita	ICM	Arka Harita -F1 hybrid- AMC 20g/lit Vegetable Special- 3gm /lit, Yellow sticky traps Neem Soap @7 gm /lit	1	1	1	4	5	0
6	Millets	Rain fed	Late Kha rif	Fox tail mill et	DHFt 109-3	-	Value addition	Demonst ration of Foxtail millet Variety DHFt 109-3 for Value Addition	4	4	6	4	-	-
7		Rain fed	Late Kha rif	Bro wn top mill et	Local	-	Value addition	Demonst ration of Brown Top Millet for Value Addition and Market linkage	4	4	6	4	-	-
8		Irrig ated	Kha rif	onio n	Arka bheem a		ICM	New variety	4	4	2	8	8	2
		Irrig ated	Kha rif	Rid ge gou rd	Arka prasana		HYV	New variety	4	4	3	7	7	3
	Flowers													
9		Irrig ated	Rabi	Tube rose		Ark a Pra jwa l	ICM	Demonstr ation of Tuberose variety Arka Prajwal	1	1	1	4	4	1
	Ornament al													
	Fruit													

	Spices and condiments													
	Commercial													
10	Medicinal and aromatic	Rain fed	Kharif	Mucuna	Arka Dhanwantari		ICM	Mucuna as a mulch crop in Coconut	10	10	5	15	14	6
	Fodder													
		Irrigated	Kharif	COFS 31			Varietal introduction	Demonstration of Fodder Sorghum CoFS 31	2.5	2.5	0	10	10	0
		Irrigated	Kharif	Marvel Grass			Varietal introduction	Demonstration of Marvel Grass - Perennial Fodder Dicanthium annulatum	1	1	0	5	5	0
	Plantation													
	Fibre													
	Dairy													
	Poultry													
	Rabbitry													
	Piggery													
	Sheep and goat													
	Duckery													
	Common carps													
	Mussels													
	Ornamental fishes													

	Oyster mushroom													
	Button mushroom													
	Vermicompost													
	Sericulture													
	Apiculture													
	Implements													
	Others (specify)													

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

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
	Oilseeds												
	Pulses												
	Cereals												
1		Rained	Kharif 2021	Ragi	KMR630	-	ICM	KMR-630 Seeds 12.5 kg/ha. Red gram seeds (intercrop) – 5 kg/ha Bio-fertilizer (AMC)-1Kg FYM-10 t/ha. RDF - 50:37:40 NPK kg/ha Zinc Sulphate – 12.5 kg /ha.	Kharif 2021	L	M	M	Groundnut

								Borax - 10kg / ha					
2		Irrigated		Aerobic paddy	Puastic 9	-	ICM	Aerobic Paddy seeds - 15 kg/ha, FYM - 10 ton/ha, Biofertilizer – 0.5 kg/ha, RDF - 100:50: 50 NPK kg/ha, Borax - 8 kg/ha, Zinc sulphate – 20 kg/ha	Kharif 2021	M	L	M	Paddy
	Millets												
3	Vegetables	Irrigated	Summer-2021	Tomato	-	Arka Abedh	Enhancement of productivity	Demonstration of Arka Abedh : F1 Hybrid resistant to Tomato Leaf Curl, Bacterial wilt, Early blight and Late blight	Summer-2021	M	M	L	Fallow
4		Irrigated	Summer 2020	French Bean	Arka Arjun	-	ICM	Arka Arjun AMC: 20g /lit Vegetable Special-2gm /lit & Neem soap : @ 7 g/lit	Summer 2020	M	L	M	Ragi
5		Irrigated	Rabi 2020	Chilli		Arka Harita	ICM	Arka Harita - F1 hybrid- AMC 20g/lit Vegetable Special-3gm /lit, Yellow sticky traps Neem Soap @7 gm /lit	Rabi 2020	M	L	L	Groundnut
	Vegetables												
	Flowers												

6		Irrigated	Rabi 2020	Tube rose	Arka Prajwal	-	ICM	Demonstration of tuberose variety Arka Prajwal	Kharif 2020	M	L	M	China Aster
	Ornamental												
	Fruit												
	Spices and condiments												
	Commercial												
7	Medicinal and aromatic	Rain fed	Kharif	Mucuna	Arka Dhanwantari		ICM	Mucuna as a mulch crop in Coconut	Kharif	low	moderate	low	fallow
	Fodder												
		Irrigated	Kharif	Sorghum fodder	COFS 31	-	Varietal introduction	Demonstration of Fodder Sorghum CoFS 31	Kharif	M	L	M	Fodder
		Irrigated	Kharif	Marvel Grass	Marvel Grass	-	Varietal introduction	Demonstration of Marvel Grass - Perennial Fodder Dicanthium annulatum	Kharif	M	M	L	Fodder
	Plantation												
	Fibre												

5.B. Results of FLDs

5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	Economics of demonstration (Rs./ha)			Economics of demonstration (Rs./ha)		
							Demo			Check		Gross Return	Net Return	BCR	Gross Return	Net Return	BCR
							H	L	A								
Oilseeds																	
Pulses																	

Cereals																	
Ragi	Short duration Ragi	KMR630	-	Rainfed	10	4	26.4	19.7	21.7	17.4	24.7	54,250	28,610	2.11	43,500	16,790	1.63
Paddy	Aerobic paddy	Puastic 9	-	Irrigated	10	4	32.9	25.4	31.3	24.8	26.2	46,950	25,200	2.16	37,200	16,950	1.84
Millets																	
Millets	Demonstration of Foxtail millet Variety DHFt 109-3 for Value Addition	DHFt 109-3		Rainfed	10	4	15.68	14.72	15.20	12.6	20.63	61,800	34,300	2.24	37,520	12,920	1.52
	Demonstration of Brown Top Millet for Value Addition and Market linkage	Local		Rainfed	10	4	11.4	9.6	10.5	-	-	11,000	6500	2.44			
Vegetables	Demonstration of Arka Abedh : F1 Hybrid resistant to Tomato Leaf Curl, Bacterial wilt, Early blight and Late blight	-	Arka abedh	Irrigated	05	2.00	63.78	58.60	61.24	47.85	27.98	612440	401646	2.91	478540	266612	2.26
	ICM in onion	Arka bheema		Irrigated	10	4	195	101	182	140	30.0	182000	122000	3.03	140000	65000	1.86
	Arka prasana Ridge gourd demonstration	Arka prasana		Irrigated	10	4	131	112	120	84	42.85	180000	130000	3.6	126000	66000	1.9
	Arka Arjun AMC: 20g /lit Vegetable Special- 2gm /lit & Neem soap : @ 7 g/lit	Arka Arjun	-	Irrigated	05	01	81	75	78	62.70	24.40	1,56,080	1,19,304	4.24	1,25,400	87518	3.31
	Arka Harita -F1 hybrid- AMC 20g/lit Vegetable Special- 3gm /lit, Yellow sticky traps Neem Soap @7 gm /lit	Arka Harita	-	Irrigated	05	01	240.5	225.4.6	238.50	194.20	22.81	298125	199135	3.01	242750	138500	2.33
Flowers																	
	Demonstration of Tuberose variety –Arka Prajwal	Arka Prajwal	-	Irrigated	05	01	74.10	72.30	73.60	58.50	25.81	294400	203650	3.24	234000	139450	2.47
Ornamental																	
Fruit																	
Spices and condiments																	

Commercial																	
Fibre crops like cotton																	
Medicinal and aromatic	Mucuna for the improvement of soil in Coconut	Arka Dhanwantari	Rainfed		20	10	240	145	200	NA	NA	NA	NA	NA	NA	NA	NA
Fodder																	
	Demonstration of Fodder Sorghum CoFS 31	CoFS 31	-	Irrigated	10	2.5	386	365	381	317	18.3	84000	17825	1.23	71000	7200	1.12
	Demonstration of Marvel Grass - Perennial Fodder Dicanthium annulatum	Marvel Grass	-	Irrigated	5	1	-	-	Milk Yield 8 Litres	Milk Yield 5 Litres	3 litres	31680	17280	2.2	18000	8100	1.5
Plantation																	
Fibre																	
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 – Highest Yield, L – Lowest Yield A – Average Yield

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

Data on other parameters in relation to technology demonstrated		
Parameter with unit	**Demo**	**Check**
ICM in Tomato A: Early leaf blight percent disease incidence B:Late leaf blight percent disease incidence C:TLCV percent disease incidence D;Plant height	A;2.89 B:5.66 C: 3.66 D: 128.6	A:16.89 B:19.79 C: 18.68 D: 134.8
Demonstration of foxtail millet Variety DHFt 109-3 for Value Addition (A) Plant height (cm), (B) Productive tillers (no.), (C) Straw yield (t/ha),	(A) 122.10, (B) 5.88,(C) 2.68	(A) 117.66 ,(B) 5.08, , (C) 2.34
Blast incidence per cent	0	23.5
Plant height in cm	94.5	88.4
Dry matter Production of Mucuna in Coconut	20 tons per ha, because of mulch crop, 92% less weed intensity was observed compared to check plot.	Vacant land where negligible amount of Dry matter produced where savior Weed intensity observed as well as available moisture to Coconut was less when compared to demo.

5. B2. Feedback on technologies demonstrated

Name of technology demonstrated	**Useful characters as well as constraints of technology**	**Socio-economic as well as administrative constraints for its adoption**
Demonstration of Arka Abedh : F1 Hybrid resistant to Tomato Leaf Curl, Bacterial wilt, Early blight and Late blight	Resistant to Tomato Leaf Curl, Bacterial wilt, Early blight and Late blight causes major damage to crop and very high yielder.	Nil
Ragi KMR 630	95-100 days duration, Tolerant to blast	Nil
Aerobic paddy Paustic- 9	Water saving, High nutritional value, labor saving	Nil
ICM in French bean –Arka Arjun	Arka Arjun was found to be more profitable with an additional income of Rs. 27,498 per ha as compared to Local during summer.	Nil
ICM in Chilli – Arka Harita	Arka Harita hybrid gives high yield and pungency, Less leaf curl incidence and fetches good price in the market compared to local.	Nil
ICM in Tuberose-Arka Prajwal	Early flowering (65 days), Medium sized with light pinkish and more numbers of florets per plant, suited for loose flowers & garland. Medium shelf life (3 days)	Nil

FLD - Enhancement of Productivity of Finger millet by drought tolerant variety KMR 630

FLD - Demonstration of water saving Aerobic Paddy Paustic-9

5.B.3. 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																
Pigerry																
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. 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

5.B.5. 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. B6. Feedback on fisheries technologies demonstrated

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

5.B.7. Other enterprises

Enterprise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units / Area {m^2}	Name of the parameter with unit	Yield				% Increase	*Economics of demonstration (Rs./unit) or (Rs./m2)			*Economics of check (Rs./unit) or (Rs./m2)		
						Demo			Check if any		Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
						H	L	A								
Oyster mushroom																

Button mushroom																
Vermicompost																
Sericulture																
Apiculture																
Others (pl.specify)																
Value addition	Drum stick leaves: Value Addition, Branding and Market linkage		2SHGs	2	On-going											
Value addition	Coconut Coir, Ridge gourd fiber and Lavancha root - Value Addition, Branding and Market linkage		1SHG	1	On-going											

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= Gross Return/Gross Cost
H-High L-Low, A-Average

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

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

5. 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

5.B.9. Farm implements and machinery

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

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= Gross Return/Gross Cost

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

Data on other parameters in relation to technology demonstrated

Parameter with unit	Demo	Local

5. B10. Feedback on farm implements demonstrated

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

FLD - Demonstration of Foxtail millet Variety DHFt 109-3 for Value Addition

FLD - Demonstration of Brown Top Millet for Value Addition and Market linkage

Demonstration on Nutri Garden at Karemadenahalli and Tanganahalli

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

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	02	340	1) Director, IIHR was also participated 2) Field on Ridge gourd demo
2	Farmers Training	02	76	-
3	Media coverage	02	5520	

4	Training for extension functionaries	-	-	
5	Others (Please specify)	-	-	


ICM in Chilli – Arka Harita


ICM in Tuberose – Arka Prajwal


ICM in French bean – Arka Arjun

PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)			*Economics of check (Rs./ha)		
					Demo			Check		Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
					H	L	A								
Cereals															
Bajra															
Maize															
Paddy															
Sorghum															
Wheat															
Others (pl.specify)															
Total															
Oilseeds															
Castor															
Mustard															
Safflower															
Sesame															
Sunflower															
Groundnut															
Soybean															
Others (pl.specify)															
Total															
Pulses															
Greengram															
Blackgram															
Bengalgram															
Redgram															
Others (pl.specify)															
Total															
Vegetable crops															
Bottle gourd															
Capsicum															
Others (pl.specify)															
Total															
Cucumber															
Tomato	Demonstration of Arka Abedh : F1 Hybrid resistant to Tomato Leaf Curl, Bacterial wilt, Early blight and Late blight	Arka Abedh	05	2.00	63.78	58.60	61.24	47.85	27.98	612440	401646	2.91	478540	266612	2.26
Tomato															
Brinjal															
Okra															
Onion															
Potato															
Field bean															
Others (pl.specify)															
Chilli	Arka Harita - F1 hybrid- AMC 20g/lit Vegetable Special- 3gm /lit, Yellow sticky traps Neem Soap @7 gm /lit	Arka Harita	05	01	240.5	225.46	238.50	194.20	22.81	298125	199135	3.01	242750	138500	2.33

Total			10	3	304.28	58.6	299.74	242.05	50.79	910565	600781	5.92	721290	405112	4.59
Commercial crops															
Sugarcane															
Coconut															
Others (pl.specify)															
Tuberose	Demonstration of Tuberose variety –Arka Prajwal	Arka Prajwal	05	01	74.10	72.30	73.60	58.50	25.81	294400	203650	3.24	234000	139450	2.47
Total			05	01	74.10	72.30	73.60	58.50	25.81	294400	203650	3.24	234000	139450	2.47
Fodder crops															
Maize (Fodder)															
Sorghum (Fodder)															
Others (pl.specify)															
Total															

H-High L-Low, A-Average

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

Feedback on crop hybrids demonstrated

Name of crop hybrid demonstrated	**Useful characters as well as constraints of technology**	**Socio-economic as well as administrative constraints for its adoption**
Demonstration of Arka Abedh : F1 Hybrid resistant to Tomato Leaf Curl, Bacterial wilt, Early blight and Late blight	Resistant to Tomato Leaf Curl, Bacterial wilt, Early blight and Late blight causes major damage to crop and very high yielder.	**Nil**
ICM in Chilli –Arka Harita	Arka Harita hybrid gives high yield and pungency, Less leaf curl incidence and fetches good price in the market compared to local.	**Nil**
ICM in Tuberose-Arka Prajwal	Early flowering (65 days), Medium sized with light pinkish and more numbers of florets per plant, suited for loose flowers & garland. Medium shelf life (3 days)	**Nil**

PART VII. TRAINING

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										

Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology	02	28	20	48	9	0	9	37	20	57
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers	01	98	0	98	0	0	0	98	0	98
Soil and water testing										
Others (pl.specify)										
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										

Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	01	0	36	0	0	0	0	0	36	36
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										
Plant Protection										
Integrated Pest Management										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										

Production of Inputs at site										
Seed Production										
Planting material production	01	11	15	26	0	0	0	11	15	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)										
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	5	137	71	172	9	0	9	146	71	217

7.B Training of Farmers and Farm Women 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**
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										

Nursery management										
Integrated Crop Management	02	39	06	45	0	0	0	39	6	45
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop	01	18	7	25	9	0	9	27	7	34
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify) Organic Farming in Horticulture crops	02	35	01	36	0	0	0	35	01	36
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology										

Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated nutrient management	01	33	0	33	0	0	0	33	0	33
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										
Others (pl.specify) Climate Smart Agriculture	01	21	7	28	0	0	0	21	7	28
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management	01	98	0	98	0	0	0	98	0	98
Feed and Fodder technology										
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	02	7	30	37	0	0	0	7	30	37
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	0	25	25	0	0	0	0	25	25
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										

Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										
Plant Protection										
Integrated Pest Management	01	22	5	27	6	0	6	28	6	34
Integrated Disease Management	01	26	0	26	0	0		26	0	26
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl.specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production	01	0	25	25	0	0	0	0	25	25
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets	01	20	05	25	20	0	20	40	05	45
Small tools and implements										
Production of livestock feed and fodder										

Production of Fish feed										
Mushroom production										
Apiculture										
Others (pl. specify)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths	01	24	05	29	0	0	0	24	05	29
Others (pl.specify) IIHR technologies and extension activities	01	32	06	38	0	0	0	32	6	38
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	17	375	122	497	35	0	35	410	123	533

7.C.Training for Rural Youths including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production	4	51	27	78	12	3	15	63	30	93
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										

Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify) Production of Medicinal plants	01	02	28	30	0	0	0	02	28	30
TOTAL	5	53	55	108	12	3	15	65	58	123

7.D. Training for Rural Youths 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
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										

Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
TOTAL										

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify) Productivity enhancement in Plantation crops	1	16	6	22	-	-	-	16	6	22
Total	1	16	6	22	-	-	-	16	6	22

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										

Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
Total										

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
1	**Crop production and management**										
1.a.	Increasing production and productivity of crops										
1.b.	Commercial production of vegetables										
2	**Production and value addition**										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops										
3.	**Soil health and fertility management**										
4	**Production of Inputs at site**										
5	**Methods of protective cultivation**										
6	**Others (pl.specify)**										
7	**Post harvest technology and value addition**										
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
8	**Farm machinery**										
8.a.	Farm machinery, tools and implements										
8.b.	Others (pl.specify)										
9.	**Livestock and fisheries**										
10	**Livestock production and management**										
10.a.	Animal Nutrition Management	1	0	0	0	5	28	33	5	28	33
10.b.	Animal Disease Management										
10.c	Fisheries Nutrition										
10.d	Fisheries Management										
10.e.	Others (pl.specify)										
11.	**Home Science**										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										
11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
12	**Agricultural Extension**										
12.a.	CapacityBuilding and Group Dynamics										
12.b.	Others (pl.specify)										
	Total	1	0	0	0	5	28	33	5	28	33

Details of sponsoring agencies involved

1.
2.
3.

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
1	**Crop production and management**										
1.a.	Commercial floriculture										
1.b.	Commercial fruit production										
1.c.	Commercial vegetable production										
1.d.	Integrated crop management										
1.e.	Organic farming										
1.f.	Others (pl. specify)										
2	**Post-harvest technology and value addition**										
2.a.	Value addition										
2.b.	Others (pl. specify)										
3.	**Livestock and fisheries**										
3.a.	Dairy farming										
3.b.	Composite fish culture										
3.c.	Sheep and goat rearing										
3.d.	Piggery										
3.e.	Poultry farming										
3.f.	Others (pl. specify)										
4.	**Income generation activities**										
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, dying etc.										
4.j.	Agril. para-workers, para-vet training										
4.k.	Others (pl. specify)										
5	**Agricultural Extension**										
5.a.	Capacity building and group dynamics										
5.b.	Others (pl. specify)										
	Grand Total										

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															
2.															

PART VIII – EXTENSION ACTIVITIES

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

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No.of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Advisory services	26	1801	300	2101	113	46	159	122	42	164
Farmers visit to KVKs	165	5200	1204	6404	120	30	150	24	8	32
Lectures delivered as resource persons	19	344	292	636	25	0	25	108	24	132
Diagnostic Visits	20	68	5	73	2	0	2	9	0	9
Field Days	6	233	18	251	56	0	56	0	0	0
Group discussions/ meetings	7	61	12	73	0	0	0	87	14	101
Kisan Gosthies	0	0	0	0	0	0	0	0	0	0
Film Shows	0	0	0	0	0	0	0	0	0	0
Self help group meetings	0	0	0	0	0	0	0	0	0	0
Mahila mandals meetings	0	0	0	0	0	0	0	0	0	0
Kisan Melas	5	7972	3603	11575	150	134	284	0	0	0
Exhibitions	1	400	350	750	0	0	0	0	0	0
Scientist visit to farmers fields	35	123	41	164	0	2	2	1	0	1
Soil health camps	0	0	0	0	0	0	0	0	0	0
Animal health camps	0	0	0	0	0	0	0	0	0	0
Plant health camps	0	0	0	0	0	0	0	0	0	0
Farm Science Club meetings	0	0	0	0	0	0	0	0	0	0
Ex-trainees Sammelans	0	0	0	0	0	0	0	0	0	0
Farmers seminars	0	0	0	0	0	0	0	0	0	0
Workshops	1	0	0	0	0	0	0	35	15	50
Method Demonstrations	1	22	0	22	0	0	0	2	0	2
Celebration of important days	9	166	59	225	62	54	116	28	7	35
Special day celebrations										
Exposure visits	1	25	0	25	11	0	11	0	0	0
Others, Please specify	0	0	0	0	0	0	0	0	0	0
Bi Monthly Meeting	2	0	0	0	0	0	0	58	35	93
Total	**298**	**16415**	**5884**	**22299**	**539**	**266**	**805**	**474**	**145**	**619**

8.2 Other extension activities like print and electronic media etc.

Sl. No.	Type of media/activity	Number of activities/Number
1	Popular articles	04
2	Newspaper coverage	05
3	Extension Literature	02
4	Radio Talks	02
5	TV Talks	04
6	CD/DVD/Video clips	05
7	Animal health camps (no. of animal treated)	0
8	KVK Portal Information	140
	KMAS messages	18
	Technical reports	08
	Total	**188**

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIAL

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	ML-365	5.80	29000	84
	Ragi	KMR-630	2.0	10000	21
	Navane	DHFT-109-3	1.25	6250	4
	Korale	local	0.60	3600	7
Oilseeds					
Pulses					
Commercial crops					
Vegetables					
	Tomato	Arka meghali	0.166	49800	300
	Brinjal	Arka Neelkant	0.23	69000	140
	chilli	Arka Suphal	0.01	3000	12
	Okra	Arka anamika	2.41	96400	87
	Pumpkin	Arka Suryamukhi	0.26	52000	148
	Ridge gourd	Arka prasana	3.05	762500	215
	Amaranthus	Arka Suguna	0.07	3500	47
	Palak	Arka anupama	0.18	7200	86
	French bean	Arka Komal	1.15	34700	32
	Bottle gourd	Arka bahar	0.155	31000	124
Flower crops					
Spices					
Fodder crop seeds					
	Fodder sorghum	Co(FS)-29	0.14	5600	11
	Fodder sorghum	Co(FS)-31	0.38	15200	21
Fiber crops					
Forest Species					
Others (specify)					
Spawn	Mushroom	Oyster	13	101922	68
Medicinal crops	Mucuna	Arka Dhanwantari	6.30	75600	60
	Mucuna	Arka Subra	10.20	122400	140
Green manuring crops	Sunhemp	local	0.35	2800	nil
Plantation Crops					
	Arecanut Seed Nuts (Loose) – Nos.	Hirehalli Tall	79628 Nos	238884	56
	Arecanut Seed Nuts (Degraded)	Hirehalli Tall	13	26000	2
	Arecanut Seed Nuts (Auction)	Hirehalli Tall	41.60	10,40,000	1
	Coconut nuts	Arsikere Tall	10930	164000	1
Total			34.701	1379550	1539

9.B. Production of hybrid seeds by the KVKs

Crop category	Name of crop	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers to whom provided

Total					

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					
Fruits					
	Acid lime Seedlings	Kazi lime	2500	175000	125
	Tamarind Grafts	PKM-1	1200	84000	48
	Tamarind Seedlings	Gottigere	1000	40000	40
	Amla Grafts	NA7,NA 5	754	52780	62
	Guava Grafts	Allahabad Safed, Arka Mridula, Arka Kiran	2812	196840	56
	Jamun Seedlings	Dhupadal	290	20300	22
	Mango Grafts	Alphanso,, Kesar, Langra, Mallika & Dashahari	3574	250180	66
	Pomello Seedlings	Devanahalli Local	206	8240	38
	Custard Apple Seedlings	Balnagar	368	25760	32
	Lakshmana Phala Seedlings	Local	1069	42760	152
	Rose Apple Seedlings	Local	150	6000	30
	Cherry Seedlings	Singapore cherry	40	1600	20
Ornamental plants					
Medicinal and Aromatic					
Plantation					
	Arecanut Seedlings	Hirehalli Tall	31000	1550000	52
	Arecanut Sprouts	Hirehalli Tall	28000	196000	35
Spices					
Tuber					
Fodder crop saplings					
Forest Species					
Others(specify)					
Total			**72963**	**2649460**	**778**

Home Science Products	Quantity (Kg.)	Value (Rs.)	Number of farmers to whom provided
Amla Candy	43	12900	255
Amla Squash in Ltrs	220	28600	185
Ragi Malt	95	18990	218
Others (specify)			
Total	**358**	**60490**	**658**

9.D. Production of hybrid planting materials by the KVKs

Crop category	Name of crop	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers to whom provided
Fruits	Mango	Mallika	1950	136500	87
	Guava	Arka Kiran	1210	84700	58
Total			**3160**	**221200**	**145**

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	AMC powder	22.56	3,03,856	564
	AMC liquid (lit)	3,238	8,43,647	405
Bio-pesticide				
Bio-fungicide				
Bio Agents	Fruit Fly Traps and lures (Nos.)	18,601	3,73,120	465
Micro Nutrient Fertilizers	Banana Special	75.26	13,68.000	836
	Vegetable Special	22.59	4,75,380	452
	Mango Special	83.98	15,74,244	763
	Citrus Special	22.56	6,71,472	743
Total		**22065.95**	**4241719**	**4228**

9.D. Production of livestock

Particulars of Livestock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows	Hallikar	6	69,500	6
Buffaloes				
Calves				
Sheep	Bannur	21	1,42,570	21
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		**28**	2,12,070	**27**

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

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

(i) KVK Newsletter:
Date of start:_____ Periodicity:_____Copies printed in each issue:_____

(ii) Summary of Literature developed/published

Item	Number
Research papers- International	0
Research papers- National	0
Technical reports	4
Technical bulletins	0
Popular articles - English	2
Popular articles – Local language	3
Extension literature	2
Others if any	0
News paper article	1

(iii) Details of Literature developed/published

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

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

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

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

Radha R.Banakar, Somashekhar and Loganandhan N (2021) Nurti-Garden- Healthy food from our own backyard nutri-garden. Siri Samrudhi kannada quarterly magazine. Volume: 4, Issue: 2, Page Number: 15-18.

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

10.B. Details of Electronic Media Produced

S. No.	**Type of media**	**Title**	**Details**
1	CD / DVD	ICAR-KVK Hirehalli : A glance Farm pond for Rain water harvesting and improving livelihood of farmers. Renovation of Check dam for recharge of open well and bore well Dry land horticulture- Amla (Indian gooseberry for improving livelihood of farmers	Activities of KVK Shorts videos
2	Mobile Apps	NIL	
3	Social media groups with KVK as Admin	eHorticulture,WhatsApp Group	Knowledge sharing and diagnosis of pest & disease based on images shared by farmers.

4	Facebook account name	iihrkvk https://www.facebook.com/iihr.kvk	Dissemination of IIHR Technologies and KVK Updates and Activities
5	Instagram account name	https://twitter.com/iihrkvk	Dissemination of IIHR Technologies and KVK Updates and Activities
6	Others if any	kvkiihr	Dissemination of IIHR Technologies and KVK Updates and Activities

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

Success Story – 1

Title: Success story of Mushroom grower

Background: Mushrooms are gradually becoming popular as they are rich in minerals, vitamins, very low on fat and sugar. They are good source of protein and contain many essential amino acids. It is also known to have medicinal value and certain varieties of mushrooms can inhibit growth at cancerous tumor. Leisure time can be utilized effectively by involving in mushroom cultivation enterprise. Mushroom production is labour and management intensive. There is ample scope for mushroom industry to thrive successfully and can become a lucrative business for the unemployed rural youth, self-help groups, farm women who are in search of viable activities which are promising and giving good returns and an additional income source for the farmer. Mushroom cultivation can effectively utilize theagro residues for production of protein rich food and plays crucial role in management of agro residues. Mushroom cultivation is an eco-friendly activity, as it utilizes the wastes from agriculture which are available in huge quantities in every corner of the state and in turn produces fruiting bodies with excellent nutritional and medicinal attributes.

Introduction: Mrs.Renukadevi, 35 years old graduate woman is involved in mushroom production from last one year. She resides at Arakere village of Tumakuru taluk in Tumakuru district. Before starting mushroom cultivation, she used to prepare and sell paper bags,plastic wall hangings and garlands. But she was not happy with that due to low income and marketing problem. Then she thought of doing something new independently. After getting one day training at Krishi Vigyan Kendra, Hirehalli, Tumakuru, she established her mushroom production unit in her residence. Initially, she started producing oyster mushroom cultivation in small scale by getting spawn from KVK. .Later she attended a 25 days skill training programme on Mushroom grower under ASCI (AgricultureSkill Council of India) programme during 2019-20 at KVK. Then she established this mushroom production unit in a bigger way.

Outcome: Initially she used to prepare 20-30 kg of mushroom per month. After training and guidance from our KVK, she is now producing 130-140 kg of mushroom per month. Now she is selling fresh mushroom both

locally and sending to Bengaluru with the brand name of **"White pearl"**. She is also producing oyster mushroom on buy back basis with the suppliers from Bengaluru.

Impact: Now she started to sell fresh mushroom in different melas organized by Government Organizations and NGO's. She started to give trainings to different SHG's members. After getting training from her, 3-4 members started producing mushroom in a small scale.

Economic gains: By selling mushroom monthly she is getting an income of Rs 18,000-20,000/. She also created employment opportunity to two members. In future, she is planning to start value addition in terms of dried mushroom powder and other value added products. After several failures in mushroom cultivation, now she has become entrepreneur and mushroom production is the main source of income to her family.

Table 1: Production and Income details Before and After ASCI training programme

Mushroom production (kg)		**Annual Income (Rs)**		**% increase**
Before	After	Before	After	366.66
30	140	54,000	2,52,000	

Mushroom Production Unit

Mushroom Bag Filling

	  
Mushroom Harvesting	**Mushroom Packing and Labelling**

Success Story – 2

Bountiful harvest in Mango cultivation

Introduction:

In recent years mango cultivation has taken a back seat in crop preference in Karnataka, as only a few farmers are bold enough to cultivate mango crop in large areas. Though there are many reasons such as strong and hot winds, that affect flowering and fruit formation, heavy hailstorm and irregular rainfall, absence of proper marketing channels appears to be the main reason. But a farmer from Madhugiri taluk of Tumakuru district has a different story to tell. He is cultivating mango crop in 30 acres, but not satisfied with the performance. But, after the intervention of KVK, he is happy with the returns.

Background:

Sri.Sathyanarayana Reddy, aged 57, is a progressive farmer from Ayyanahalli village, Madhugiri taluk, Tumakuru District, Karnataka. He is educated, settled in Tumakuru, taking care of his 30 acres mango orchard, having Alphanso and Mallika varieties. Every year, there used to be heavy crop loss due to poor management practices that led to attack of pests like mango hoppers, fruit flies etc and diseases like powdery mildew and dieback. Initially, he used to spray insecticides by consulting other farmers and stake holders. But, there was no control over the pests and in due course, the tress were debilitating. The farmer was in search of suitable interventions and proper guidance for his mango dry land farming. Further, he used to apply blanket application of manures and fertilizers as well.

Interventions:

Technology:

During 2018-19, he came to know about the ICAR-Krishi Vigyan Kendra (KVK), Hirehalli (under IIHR) at Tumakuru and he contacted the Horticulture SMS. He visited his mango orchard and gave advice to go for integrated approach of good management practices by applying Enriched FYM with Arka Microbial Consortium @ 50 kg per tree and irrigation management etc. He also advised application of Mango special as foliar spray @ 5gm per litre of water @ 5 sprayers in a year to enhance the flowering, uniform mango size etc. Neem soap application @ 7 gm/litre of water was suggested to minimise the incidence of mango hoppers for every 8 days interval during flower initiation and at flowering. Installation of 10-15 Nos./ha fruit fly Pheromone traps for monitoring mango fruit flies and Arka Borer Control for management of stem borer were also advised.

Output and outcome:

In the year 2019-20, from the first bearing, he got a yield of 12,000 kgs in Alphonso and 29,604 kgs in Mallika variety. He could obtain a net profit of Rs.4,96,080 for the whole orchard (12 ha). During 2020-21 same interventions were followed and he got a yield of 13,240 kgs in Alphonso and 33,032 kgs in Mallika. He could obtain a net income of Rs. 5,96,040 from the 30 acres of Mango orchard.

Economic gains :

Before interventions, he used to get an income of Rs.21,380 per hectare only (Table 1). After the technical interventions from KVK, he found a good market due to quality produce. Sri.Sathyanarayana Reddy earned an income about Rs.45,505 per hectare by following the methodologies suggested by KVK (IIHR) for production and post-harvest care of mangoes.

Table 1. Economic analysis of a farmer's returns before and after adoption of technology for mango crop

Details	**Yield (q/ha)**	**Gross Income (Rs/ha)**	**Net Income (Rs/ha)**
Before Intervention			
2018-19	26.76	53520	21380
	Total returns for 12 ha		
	297.12	**642240**	**256560**
After KVK Intervention			
2019-20	34.67	69340	41340
2020-21	38.56	77120	49670
Mean Average	**36.62**	**73230**	**45505**
Total returns for 12 ha			
2019-20	**416.04**	**832080**	**496080**
2020-21	**462.72**	**925440**	**596040**


Plot visit before interventions



Plot visit after the interventions

Success Story – 3

Participatory Seed production with KVK for Higher income

Background:

Seed is critical input in Agriculture, and the availability of Quality seed plays a major role in sustainable yield as well as income of the family. Large number of Vegetable Varieties and Hybrids are released by the public sector research institutes like Indian Institute of Horticultural Research which have umpteen numbers of potential varieties/hybrids for their high yield and other nutritional benefits. Unlike field crops, no government agencies like State seed corporations, etc., are involved in the multiplication of vegetable seed varieties. Farmers are in need of quality seed material in vegetable crops where Multiplications of such varieties/Hybrids need to be done in large quantity which is not possible in the KVK farm/Institute farm. Looking at this problem, Participatory seed production is planned by Krishi Vigyan Kendra, Hirehalli with different farmers in Tumakuru District and under this programme, A farmer Mr.Veerakyatharayappa S/o Iranagappa a resident of Marutipura village in Madhugiri Tq of Tumakuru district with 5 Ac land use to cultivate traditional crops like paddy, ragi and Redgram before the interventions by KVK during 2020 later advised to take up the seed production activity.

Interventions:

For Efficient and effective implementation Seed production activity, which can be taken up in farmers' field under strict vigilance of KVK/Institute staff and for maintaining the seed quality, a memorandum of Agreement is made between Farmer and the KVK for defining terms and conditions on

procurement rate and other modalities. These seeds produced by the farmer will be procured by KVK as per the agreement between two parties. Later this seed material will be processed at the KVK and sold to the farmers. During the first year, He had taken these seed production activity in four crops like cotton hybrid (for Private agencies), Ragi (ML-365), Okra (Arka anamika) and Ridge gourd (Arka Prasana) the details are given in table

Output and outcome:

Components	Names	Area	Production	Gross Income (Rs.)	Net Income (Rs.)
Field Crop 1	Cotton Hybrid seed Production	2 Acre	4 Q	140000	85000
Field Crop 2	Ragi- ML 365	1 Acre	10 Q	40000	25000
Hort. Crop 1	Okra- Arka anamika	1 Acre	3 Q	75000	52000
Hort. Crop 2	Ridge gourd Arka Prasana	1Acre	1Q	120000	80000
Total		**5**	**20 Q**	**335000**	**242000**

Before implementing this intervention, the farmer used to get annual income of Less than One lakh from General crop production Red gram, Ragi, Maize, etc. unlike seed production, where earlier He not only faced problems like low income in Red gram, ragi crop etc. also fluctuation in market price for their produce. With intervention of Farmers participatory seed production in Cotton, Ridge gourd, etc., he is getting Net annual income of Rs.242000/- without facing any marketing problem.

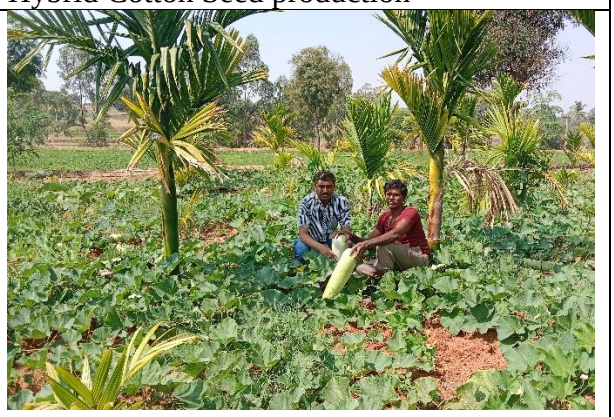
Looking at the success of this farmer, large number of surrounding farmers are interested in Seed production activity and want to collaborate with KVK for seed production activity in surrounding area, for this already more than 30 farmers had come forward and started seed production in their respective land, still many more wanted to involve in this enterprise of seed production activity for sustainable income.

Sustainable farm income of the farmers involved in the participatory seed production and Also Availability of Quality seed to the large number of farmers of the district, leading to increased level of productivity in the district by virtue of supplying the quality seed material to large number of farmers.

Looking at the success of this, KVK wanted to involve the various FPO's present in the district to through group approach for various crops, where involvement of FPO will further strengthen this kind of programme for Capacity development, procurement and marketing of the seeds produced through this approach.

Here the main focus is not only quality seed production which indirectly helpful for the enhancement of income level of the farmers but this kind of activity also helpful for employment generation as activity of seed production involves Manual crossing, Seed extraction, drying, cleaning, packing, etc.,

Photos:

	
Arka Prasana Ridge gourd Seed production plot	Hybrid Cotton Seed production
	
Arka anamika Okra Seed production field	Arka bahar Bottle gourd Seed production

Success Story – 4

Title:- Tomato Hybrid Arka Abedh –A game changer for the farmer's Income

A. **Background information about farmer field:** The farmers of Pavagada taluk have been growing Pomegranate crop since many years. From 2016 onwards, Pomegranate crop susceptible to many pest & diseases and loss is more than 60 per cent. Farmers are not in a position to get at least cost of cultivation.

At this stage, KVK, Hirehalli popularised the Tomato as an alternative crop to Pomegranate and introduce two hybrids i.e Arka Rakshak (F1 hybrid with triple disease resistance to ToLCV, Bacterial Wilt and Early blight. Fruits square round, large weighs 90-100g, deep red colored and firm. Suitable for fresh market and processing) and Arka Abedh (Multiple disease resistance to Tomato Leaf Curl Disease, Bacterial wilt, Early blight and Late blight. Plants are semi-determinate with dark green foliage. Fruits are firm, oblate round & medium large weighs 90-100g, Bred for fresh market & yields

70-75 t/ha in 140-150 days.) released from Indian Institute of Horticultural Research(IIHR), Bengaluru and demonstrated during the year 2016-17.

B. Interventions: Initially, Farmers are very reluctant to replace the crop by suspecting the low income compared to Pomegranate crop. KVK made lot of efforts to convince the farmers and able to demonstrated Arka Rakshak in 5 farmers field in an area of 2 ha 2016-17 in cluster village (Karikyathanahalli) of Pavagada taluk. Front line demonstration along with local check with Pvt. Hybrids was laid out by following full package of practices.

C. Output and Outcome: After seeing the performance of the crop particularly yield and disease resistance compared to pvt. Hybrids, farmers come ward to growing in more area during the year 2019-20.

At this stage we introduced one more new hybrid Arka abedh. The demonstration plot showed the better plant vigour, number of branches per plant and number of fruits/plant compared control plot. There was significant reduction in ToLCV, Early blight and Late blight as shown in the below table.

Technology Practices	**Per cent Disease Incidence**			**Plant ht. in cms**	**Avg. No. of Branches per plant**	**No. of days to Flowering**	**Fruit color**
	ELB (%)	**LLB (%)**	**TLCV (%)**				
Demonstration	2.89	5.66	3.66	128.6	8.80	40 DAP	Light red
Check	16.89	19.79	18.68	134.8	7.40	36DAP	Dark red with yellow band

There was a considerable yield of 27.98 % increase over the check and significant difference in B;C ration in demo(2.91) compared to check(2.26). One of Our FLD Farmer Channnmallapa, Pallvalli village, Pavagada taluk was grown in 5 acres of Tomato Arka abedh hybrid and got an yield of 125 tonnes during Kharif 2020-21. He was very much impressed about the crop stand and resistance to Late blight. He always stressed that this hybrid withstand against late blight when all other pvt. hybrids very much susceptible during the same season. Cost of cultivation is Rs.3.13 lakhs. He got very good rate of Rs.12/Kg and got an net income of Rs.8.25 Lakhs.

Particulars	Yield (ton/ha)	% increase in yield	Gross Cost (Rs./ha)	Gross returns (Rs./ha)	Net return (Rs./ha)	B:C ratio
Demonstration	61.24	27.98	210794	612440	401646	2.91
Check	47.85		211928	478540	266612	2.26

D. **Impact :** So, seeing the success of the Tomato crop, more than 80 per cent of the Pomegranate farmers diverted to Tomato crop. The area under Tomato crop during the year 2015-16 was 550 ha and increased to 2452 ha during the 2019-20.

E. **Farmer feedback :** Farmer was very much impressed about the success of Tomato crop compared to Pomegranate crop. Drastic reduction in pesticide usage as well as failure of crop. The hybrids are also impressive because of their yield and Disease tolerance

Success Story – 5

WATER SAVING AEROBIC PADDY PAUSTIC-9 TO COMBAT CLIMATE VULNERABILITY

Background

Rice (*Oryza sativa* L.) is the most important cereal crop of India. In Karnataka, about 55–60% of the rice is grown under puddled system and the rest is under a rainfed situation. Traditional rice cultivation method is well-suited to countries and regions with low labour cost and high rainfall, as it is very labour intensive. Irrigated rice is typically transplanted into puddled paddy fields, which includes land preparation with 4-6 inches of standing water and this method of cultivation requires large quantities of water and is labour intensive. It is well known that the rice grown under wetland conditions contribute to the bulk of the rice production but consumes huge amount of water and labour. To keep up the rice production during irrigation water shortage, alternate methods of cultivation of rice is essential. One such strategy is cultivation of rice under aerobic situation. Aerobic rice is a promising rice cultivation system for managing water and growing rice under water-

limited conditions, reduce water losses and increasing water productivity. Aerobic rice usually grown in upland conditions in unpuddled soil with nonflooded conditions, i.e., unsaturated (aerobic) soil with less water requirement

Interventions

New Aerobic Paddy variety Paustic-9 was released in 2019 at University of Agricultural Science, Bengaluru for South Eastern Dry Zone of Karnataka. The main advantages of the drought tolerant Aerobic Paddy of Paustic-9 are profuse root system, plant stand and vigor and tolerance to water stress at both vegetative and reproductive stages. It is known for maturity in 115-120 days, medium duration, direct sowing, no need for puddling, improving soil structure, reduction in pollution, more tillering per seed and 50-60% water saving along with 80% seeds saving and reduction in 30% labour cost. Because of increasing water scarcity, cultivation of Aerobic Paddy variety Paustic-9 was promoted and demonstrated in the villages which have water scarcity.

ICAR- Krishi Vigyan Kendra, Hirehalli, Tumakuru had conducted demonstration of Aerobic Paddy Paustic-9 in D.Nagenahalli and Tanganahalli villages of Koratagere Taluk and Karemadanahalli, Sira Taluk of Tumakuru District. The farmers were selected randomly and provided with 3 kg of Pausstic-9 seeds for aerobic cultivation in 4 ha during 2019 to 2021. Combating the climate vulnerability like intermittent dry spells, the Paustic-9 variety has shown resilience and improved yields.

Output and outcome

The results, as shown in below table, showed an increase in Paustic-9 yield 26.21% over the yield of local Paddy variety (Doddi) and an increase in additional income up to 48 %.

Comparison of yield parameters of Aerobic Paddy Paustic-9 and Local Paddy variety

Details of results obtained due to the adoption of technologies	**Improved technology** Aerobic Paddy (Paustic-9)	**Traditional practices** Local Paddy (Doddi)
Productivity per hectare (q/ha)	31.30	24.80
Percent increase in productivity per hectare	26.21	
Cost of production per hectare (Rs.)	21,750	20,250
Gross income per hectare (Rs.)	46,950	37,200
Net income per hectare (Rs.)	25,200	16,950

Percent increase in net income per hectare	48.67%

Aerobic Paddy of Paustic-9

Impact

The performance of Aerobic Paddy Paustic-9 variety was superior in grain yield over local Paddy (Doddi). The farmers harvested an average grain yield of 31.3 q/ha with an yield advantage of 26.21% over the existing variety. Almost all farmers expressed water saving character of this variety during crop growth period. The water saving was also found to be at about 48.67%. In Aerobic Rice fields, as the soil is maintained under aerobic condi□on for the en□re crop cycle, the methane production is nil or minimal. As laborer stand in puddled fields, for long hours, days on end, the damage caused to their feet is immense.The cuts and bruises due to sensi□vity to long □me exposure to water, and infectons thereof, causes ill healthto labor. In aerobic condi□on all these issues are eliminated, as there is no standing water in the field. Thishas long term health benefits to the farm laborers, farming community and the country.

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
	Groundnut	Tying of old Clothes, Installation of scare crow, Installation of empty tin with bell design , Application of phorate all along the borders	Management of Wild boar	Noise and smell scares the animals and birds
	Coconut	Fixing of old oil tin plate all around over middle of trunk.	To avoid the monkey and squirrels	To avoid the climbing of the tree

10 F. Technology Week celebration:

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

Other Details

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

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

PART XI – SOIL AND WATER TEST

11.1 Soil and Water Testing Laboratory

A. Status of establishment of Lab :

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

Sl. No	Name of the Equipment	Qty.	Cost	Status
1	Spectrophotometer with accessories	1	1,81,260	Working
2	Flame photometer	1	53,238	Working
3	Analytical balance	1	28,625	Working
4	Nitrogen Analyzer (Kjeldahl digestion and distillation unit) with spare parts	1	1,79,879	Working
5	Shaker	1	45,800	Working
6	Refrigerator	1	40,200	Working
7	Oven	1	60,456	Working
8	Hot plate	1	18,893	Working
9	Digestion fume chamber	1	99,501	Working
10	Atomic Absorption Spectrophotometer	1	10,00,000	Working
11	Centrifuge	1	58,404	Working
Total		**11**	**17,66,256**	

B. Details of samples analyzed since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	13,799	11,183	2,523	21,29,430
Water Samples	7,514	6,377	1,742	6,46,850
Plant samples	278	54	29	4,3300
Manure samples	-	-	-	-
Others (specify)	-	-	-	-
Total	**21,591**	**17,614**	**4,294**	**28,19,580**

C. Details of samples analyzed during 2021:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	716	569	452	1,56,100
Water Samples	493	428	406	1,06,300
Plant samples	2	2	2	800
Manure samples	0	0	0	0
Others (specify)	0	0	0	0
Total	**1,211**	**999**	**459**	**2,63,200**

11.2 Mobile Soil Testing Kit

A. Date of purchase and current status

Mobile Kits	Date of purchase	Current status
1.Mini Soil Testing Lab	01.03.2017	Not working
2.		

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

	During 2020	During 2021	Cumulative progress (Total)
Samples analyzed (No.)	0	0	**306**
Farmers benefited (No.)	0	0	**257**
Villages covered (No.)	0	0	**63**

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

Particulars	Date (s)	Villages (No.)	Farmers (No.)	Samples analyzed (No.)	Soil health cards issued (No.)
SWTL	452	569	716	716	452
Mobile Soil Testing Kit	0	0	0	0	0

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	45	30	-	1	2	0

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)
ICM in Tomato	10	100	2.66 lakh/ha	4.01 Lakh/ha
Mushroom production	1	100	54,000	2,52,000
Banana Special (For Ellakki banana)	45	66.7	2,64,825	3,67,812
French bean as intercrop in Arecanut	40	72.5	1,71,164	2,15,350
AMC (For Tomato)	51	62.3	1,80,000	2,20,000
Neem Soap (Mango crop)	46	64	52,450	89,270
Enhancement of Productivity of Finger millet by drought tolerant variety ML 365	450	85	20,500	42,500

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)

Addressing Drought Vulnerability by Drought tolerant Ragi ML -365

Preamble : Ragi (*Eleusine coracona*) is also called as Finger millet. Ragi is the main staple food consumed by majority of the people in South Karnataka. Ragi is grown as rainfed as well as irrigated crop, mostly cultivated by poor and marginal farmers, as it is most nutritious among all cereals and grown as pure crop as well as intercrop with pulses. Ragi is rich in carbohydrates, calcium, fibre, protein and vitamins, contains slow releasing carbohydrates and provides continuous energy and is being promoted as food for diabetics. Ragi is grown in 1.8 million ha with average yield of 13 q / ha in India and 9.16 lakh ha with average yield of 16 q / ha in Karnataka. Ragi is grown in 1.87 lakh ha in Tumakuru district, with an average yield of 18 q / ha, which is comparatively low yield. The main reasons for low productivity are delayed on set of monsoon, low rain fall, erratic rain fall, dry spells, high temperature and non-availability and non-adoption of drought tolerant and high yielding variety.

Input :ICAR- Krishi Vigyan Kendra (IIHR) Tumakuru-had conducted front line demonstration of Ragi ML-365 variety in 25 ha covering 62 farmers at 5 taluks Viz., Tumkur, Sira, Koratagere, Madhugiri and Pavagada taluks of Tumakuru district as an alternative to the local GutteRagi. The villages selected are vulnerable to climatic variability like drought, dry spells and extreme temperature. The specific characteristics of the Ragi ML-365 variety are short duration (about 105 days), medium plant height, high grain and fodder yielding, resistant to leaf spot, neck blast disease and lodging, good cooking quality, suitable for dryland agriculture and late sowing.

Outcome: The average yield of Ragi ML365 (25.5 q/ha) is high compared to the local Gutte Ragi (18.7 q/ha). Ragi ML-365 grain yield per ha was 6.8 q higher over local Gutte Ragi. Ragi ML-365 gave higher net income (Rs. 48000/-) compared to local Gutte Ragi (Rs. 32000/-) per ha and generated additional income of Rs.16000/- per ha as shown in Table. The results showed an increase of 36.40% over the yield of local GutteRagi variety and additional income increased to 50% and also reduced the leaf spot and neck blast disease

Particulars	Avg. Plant height (cm)	Avg. Panicle weight (g)	Avg. Yield (q/ha)	% Increase	Gross Cost (Rs./ha)	Gross Returns (Rs./ha)	Net returns (Rs./ha)	B:C ratio
Demonstration	105.2	24.8	25.5	36.4	32750	63750	48072	1.95
Check	79.8	18.4	18.7		28450	46750	32302	1.64

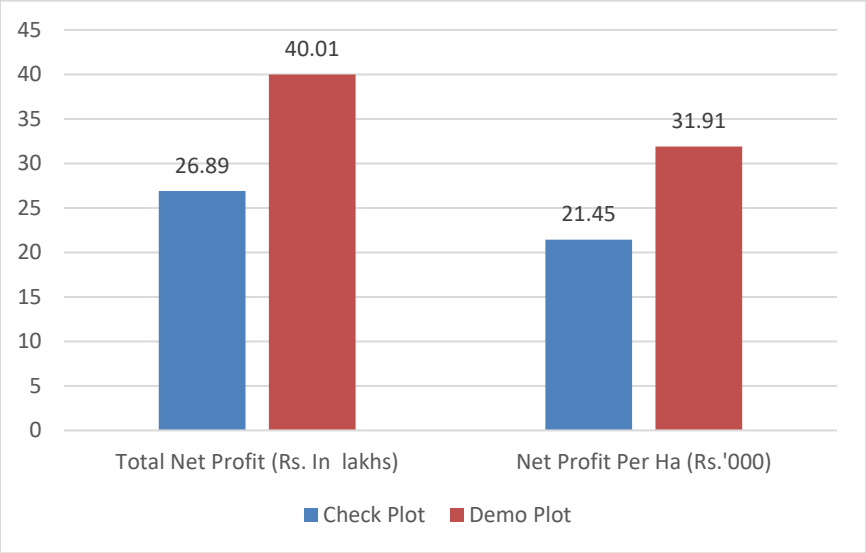
Impact : The Ragi ML-365 variety performed superior to the existing Local Gutte Ragi at Durgada Nagenahalli due to resistance to drought and blast. It was also performed well when adopted during delayed monsoon. The variety was up scaled in Tumakuru District through Department of Agriculture, Tumakuru. Ragi ML-365 was cultivated in 3,200 ha in Tumakuru District during 2020-21. Additional production of 22,800 q gave net income Rs. 4.42 crore and benefitted about 8,200 farmers.

Ragi – ML 365

Gutte Ragi local

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

- About 350 farmers were involved in FLDs in the last five years, covering an area of about 150 ha (On an average 0.4 ha per farmer).
- The total net profit that these farmers obtained by following the KVK's FLDs in the above mentioned technologies is Rs.40.01 lakhs. Whereas the total net profit in the check is Rs.26.89 lakhs. The increase in net profit in demo plots is 49% more than the check plots.
- If we calculate the net profit on per ha basis, it is Rs. 31,905 in demo plots, more than Rs.10,000 compared to check plots (Rs.21,446)
- Infestation of Fruit flies in Mango was a major problem in mango growing area and proper fruit fly control technology measures were not followed because of the lease giving practices among the farmers. The awareness was created and use of fruit flies traps was demonstrated (IIHR technology) at the appropriate time and for effective control of fruit flies at critical stage. Nearly 2650 farmers adopted the technology and farmers realized that it is a low cost technology which is effective to control fruit flies in mango.
- Farmers have realized the importance of AMC technology (Vegetables). This low cost technology has enhanced the income by reducing the cost of production with quality and higher productivity.
- The technologies demonstrated in about six FLDs have reached more than 500 ha within the district, as per the feedback form line department staff, as mentioned in the graph below.



PART XIII - LINKAGES

13A. Functional linkage with different organizations

Name of organization	Nature of linkage
ICAR-CRIDA, Hyderabad	Technology demonstration Component of NICRA and Conservation Agriculture projects
ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Bengaluru	Awareness Programme on Zoonotic Diseases on the occasion of World Zoonoses Day-2021 (7th July 2021) Livestock Production Technologies, Agriculture and allied Activities under NADSC(SCSP) Programme
Department of Women and Child Development	Hands on Trainings paper bag making and grafting (21 & 22nd Dec, 2021)
AVISHKAR NGO, Tumakuru	Various Training Programmes and demonstrations were conducted in the fields of farmers belong to Watershed project and FPOs
DHAN Foundation NGO	Trainings, Walkathon, Bhoosamruddi scheme programmes
National Bee Board	Setting up of honey and other beehive products testing laboratory at KVK campus
Samashti Foundation, Bengaluru	PRA Analysis was carried out at Hunsawadi village, Madhugiri Taluk (29.12.2021)
Directorate of Oilseeds Development, Hyderabad	NMOOP project – Groundnut and Castor
Directorate of Pulses Development, Bhopal	NFSM project- Red gram
SKRDP, Tumakuru district	Capacity Development for women SHGs
ORDER NGO, Tumakuru	FPO support
State Department of Agriculture	Trainings, FLDs, Joint Diagnostic Survey, Krishi Abhiyana Programme, ATMA programme, Demonstration, DATC Training, Exhibition, Organic and Millet Melas, Krishi Melas, Farmers Days and Advisories.
State Department of Horticulture	Trainings, FLDs, Joint Diagnostic Survey, Terrace Gardening, Exhibition, Advisories, Comprehensive Horticultural Development programme etc.
ICAR-NBAIR, Bengaluru	Trainings and for Technology Backstopping
NABARD, Tumakuru	Supporting various FPOs
IIHR Bengaluru	Training programme and Distribution of improved varieties of quality fruit samplings under SCSP scheme

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution

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.)
Technology demonstration component of NICRA	January 2011- April - 2021	ICAR-CRIDA, Hyderabad	**2066000**
National Food Security Mission (NFSM)	April 2021	DOP Kanpur	
National Mission on Oil Seed and Oil Palm (NMOOP)	April 2021	DOOR Hyderabad	
Establishment of Honey test laboratory	April 2021	National Bee Board New Delhi	9949000

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**				
03	**Training programmes**				
04	**Demonstrations**				
05	**Extension Programmes**				
	Kisan Mela				
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
06	**Publications**				
	Video Films				
	Books				
	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**

13G. Kisan Mobile Advisory Services

Month	No of Advisories	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	2	Text	**2**	0	0	0	0	0	2	**1943**
February	1	Text	0	0	0	**1**	0	0	1	**1951**
March	0	Text	0	0	0	0	0	0	0	**0**
April	1	Text	1	0	0	0	0	0	1	**1945**
May	0	Text	0	0	0	0	0	0	0	**0**
June	0	Text	**0**	0	0	0	0	0	0	**0**
July	6	Text	**5**	0	0	0	**1**		6	**1945**
August	4	Text	**4**	0	0	0	0	0	4	
September	1	Text	**1**	0	0	0	0	0	1	**1945**
October	0	Text	0	0	0	0	0	0	0	**0**
November	0	Text	0	0	0	0	0	0	0	
December	4	Text	**3**	0	0	0	**1**	0	4	**1945**
Total	**19**		**16**	**0**	**0**	**1**	**2**	0	**19**	**11674**

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	

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									
Ragi	4/6/2021	4/10/2021	0.4	ML-365	Seed	5.8	9667	29000	
Ragi	14/7/2021	4/11/2021	0.4	KMR-630	Seed	2	3333	10000	
Navane	15/11/20	5/3/2021	0.2	DHFT-109-3	Seed	1.25	2083	6250	
Korale	20/12/20	12/3/2021	0.1	local	Seed	0.6	1200	3600	
Pulses									
Oilseeds									
Fibers									
Spices & Plantation crops									
Areca nut	-	-	0	Hirehalli Tall	Seedlings	31000	496000	1550000	
					Sprouts	28000	84000	196000	
Floriculture									
Fruits									
Mango	-	-	0	Alphanso, Mallika	Grafts	3574	1,25,090	250180	
Guava	-	-	0	AS, Pink flesh, L-49	Grafts	2812	98420	196840	
Lime	-	-	0	Balaji	Seedlings	2500	50000	175000	

Tamarind				PKM 1	Grafts	1200	42000	84000	
Tamarind Seedlings				Gottipura	Seedlings	1000	15000	40000	
Jamun				Dupdhal	Grafts	290	10150	20300	
Custard Apple				Balnagar	Grafts	368	12880	25760	
Others seedlings	-	-	0	Rose apple, Ramphal, Pomello, Cherry, Lakshman Phal etc.,	Seedlings	1465	29300	58600	
Vegetables									
Ragi	4/6/2021	4/10/2021	0.4	ML-365	Seed	5.8	9667	29000	
Ragi	14/7/2021	4/11/2021	0.4	KMR-630	Seed	2	3333	10000	
Navane	15/11/20	5/3/2021	0.2	DHFT-109-3	Seed	1.25	2083	6250	
Korale	20/12/20	12/3/2021	0.1	local	Seed	0.6	1200	3600	
Ragi	4/6/2021	4/10/2021	0.4	ML-365	Seed	5.8	9667	29000	
Ragi	14/7/2021	4/11/2021	0.4	KMR-630	Seed	2	3333	10000	
Navane	15/11/20	5/3/2021	0.2	DHFT-109-3	Seed	1.25	2083	6250	
Korale	20/12/20	12/3/2021	0.1	local	Seed	0.6	1200	3600	
Ragi	4/6/2021	4/10/2021	0.4	ML-365	Seed	5.8	9667	29000	
Ragi	14/7/2021	4/11/2021	0.4	KMR-630	Seed	2	3333	10000	
Others (specify)									
Medicinal Crops									
Mucuna	4/6/2020	4/2/2021	0.4	Arka Dhanwantari	Seed	6.3	25200	75600	
Mucuna	12/6/2020	5/2/2021	0.4	Arka Subra	Seed	10.2	40800	122400	
Fodder crops									
Fodder sorghum	7/6/2021	17/10/2021	0.1	Co(FS)-29	Seed	0.14	1867	5600	
Fodder sorghum	20/6/2021	24/11/2021	0.1	Co(FS)-31	Seed	0.38	5067	15200	

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	

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

Accommodation available (No. of beds) 20

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
January	8	1	NIL
February	0	0	NIL
March	0	0	NIL
April	0	0	NIL
May	0	0	NIL
June	0	0	NIL
July	3	1	NIL
August	18	1	NIL
September	0	0	NIL
October	19	1	NIL
November	1	1	NIL
December	0	0	NIL

14F. Database management

S.No	Database target	Database created

14G. Details on Rain Water Harvesting Structure and micro-irrigation system

(c) Rain Water Harvesting Structure

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		

(d) Micro-irrigation systems

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		

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	1.											
	2.											
2	1.											
	2.											

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					
2					

15.3 Fertilizer awareness programme organised

State	**Name of KVK**	**Details of Activities/programme Organised**	**Number of Chief Guests**	**No. of Farmers attended program**	**Total participants**
Karnataka	ICAR-KVK, Hirehalli	Balanced use of fertilizers	1	98	99

15.4 Seed Hub

Crops	***Variety***	***Year of release***	***Production***				***No of farmers benefited/Sold to no. of farmers***	***Quantity seed sold (q)***
			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.)
01.	Groundnut	K-6 and TMV-2	26	65	26	65
02.	Castor	ICH-66	20	50	20	50

	Total		46	115	46	115

15.6 CFLDs on Pulses:

Sl.No.	Crop	Varieties demonstrated and check	Allocated		Implemented	
			Area (ha)	Demos (No.)	Area (ha)	Demos (No.)
01	Red gram	BRG-5, check-BRG-1	22	55	22	55
	Total		22	55	22	55

15.7 Krishi Kalyan Abhiyan (Aspirational districts)

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**

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**

15.9 Tribal Sub-Plan (TSP)

Farmer Training		Women Farmer Training		Rural Youths		Extension Personnel		OFT (No of Technologiess)	Number of farmers involved			Participants in extension activities (No.)	Production of seed (q)	Production of Planting material (Number in lakh)	Production of Livestock strains (Number in lakh)	Production of fingerlings (Number in lakh)	Testing of Soil, water, plant, manures samples (Number)
No. of Trainings/Demos	No. of Farmers	No. of Trainings/Demos	No. of Women Farmers	No. of Trainings/Demos	No. of Youths	No. of Trainings/Demos	No. of Ext. Person		On-farm trials	Front line demos	Mobile agro-advisory to farmers						

15.10 SCSP

Farmer Training		Women Farmer Training		Rural Youths		Extension Personnel		OFT (No of Technologiess)	Number of farmers involved			Participants in extension activities (No.)	Production of seed (q)	Production of Planting material (Number in lakh)	Production of Livestock strains (Number in lakh)	Production of fingerlings (Number in lakh)	Testing of Soil, water, plant, manures samples (Number)
No. of Trainings/Demos	No. of Farmers	No. of Trainings/Demos	No. of Women Farmers	No. of Trainings/Demos	No. of Youths	No. of Trainings/Demos	No. of Ext. Person		On-farm trials	Frontline demos	Mobile agro-advisory to farmers						
1	33	1	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0

15.11 NARI

Activity	Achievement	
	Number of activity	No. of farmers/ beneficiaries
OFTs – Nutritional Garden (activity in no. of Unit)		
OFTs – Bio-fortified Crops (activity in no. of Unit)		
OFTs – Value addition (activity in no. of Unit/Enterprise)		
OFTs - Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)		
FLDs – Nutritional Garden (activity in no. of Unit)	30	30
FLDs – Bio-fortified Crops (activity in no. of Unit)		
FLDs – Value addition (activity in no. of Unit/Enterprise)	20	20
FLD- Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)		
Trainings	2	45
Extension Activities	8	130

15.12 KVK Portal

No. of Events added by	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	Appliances	Crops	Resources	Fish

KVKs									Cards				
172	19	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y

15.13 KSHAMTA

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

15.14 DFI

Sl	District	Taluks	Villages	Farmers (No.)	Average Benchmark Income (Rs/year)	Crops/ enterprises	KVK Interventions	Additional Net Income generated due to KVK interventions (Rs/year)	Total income of farmer (Rs/year)
1	Tumakuru	Sira Koratagere Madugiri Tumakuru	1 1 4 1	7 4 5 1	2,30,392	Ragi, Foxtail millet, Redgram,Groundnut,chilli,Dolichos,Brinjol, Tomato, Frenchbean, Pomogranate,Papaya, Mushroom, Crysanthemum, China aster, Kakada, Arecanut, coconut, Nutri Garden and value addition	1.Demonstration on white Ragi KMR -340 variety for value addition. 2.Demonstration on DHFt 109-3 Foxtail millet variety for value addition. 3.Demonstration on brown top millet for value addition. 4,Demonstration on backguard nutri garden. 5.EDP on Ragi value addition. 6.EDP on Jackfruit value addition. 7.EDP on Tamarind value addition. 8.processing and value addition	1,77,581	4,66,448

2	Tumakuru	Koratagere, Tumakuru	D.Nagenahalli, Chikkadoddavadi, Tanganahalli, Vaddarahalli, Baichenahalli, Chikkahalli, Neelagondanahallli, Urdigere, Hirehalli	22	2,10,356	Finger millet, Maize, Arecanut, Coconut, China Aster, HFcow,Fodder maize, Chrysanthemum, Kakada, Tomato, Goat, Paddy, Tamarind	Finger millet ML-365, ICM in Areca nut and Coconut, management of Fallarmy worm, intercropping in Coconut, French bean Arka Suvidha, use of vegetable special, multi cut CoFS29, Check dam desilting and borewell recharge, use of AMC biofertilier, value addition in Amla, sericulture,farm pond, Aerobic paddy, Paustic 9, Mineral mixture, Pigeon pea BRG-4, Pruning in jasmine, French bean intercropping	1,81,358	5,50,984
3	Tumakuru	Madhugiri	Rangapura Badavanahalli	25	2,57,753	Ragi, Maize, Redgram,Millets Groundnut Tomato, Brinjal, Chilli, Kakada, Mango, Banana, Arecanut, Dairy, Sheep rearing	Frontline Demonstrations, Trainings	2,30,835	4,88,588

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

16.1 Farmers feedback on performance of crop varieties/hybrids

Sl. No.	Crop varieties/hybrids assessed/ demonstrated	Farmer's feedback
01.	Arka Abedh	High disease resistant and heavy yielder performed vey well
02	DHFt 109-3	Yield of DHFt109-3 variety (15.20 q/ha) was 20.63 % more compared to local (12.60 q/ha). B:C ratio was more for value added products(2.24) compared to selling as such (1.48). Farmer's feedback was that there was a reduction in yield due to damage caused by heavy rainfall.
03	Aerobic Paddy Paustic-9	The new variety required 40% less water compared to flooding. The farmers harvested an average grain yield of 31.3 q/ha with a yield advantage of 27.4 % over the existing variety.
04	Finger millet KMR-630	The new variety is tolerant to Finger millet blast. Can be harvested 20 days early compared to local Finger millet. The farmers harvested an average grain yield of 21.7 q/ha with a yield advantage of 24.7 % over the existing variety. Drastic reduction in yield due to damage caused by heavy rainfall.
05	Chilli – Arka Gagan and Arka Tanvi	Arka Gagan and Arka Tanvi hybrids yielded more, pungency is high in Arka Gagan as compared to Demon
06	Chilli – Arka Harita	Arka Harita hybrid gives high yield and pungency, Less leaf curl incidence and fetches good price in the market compared to local.
07	Tuberose – Arka Prajwal	Early flowering (65 days), Medium sized with light pinkish and more numbers of florets per plant, suited for loose flowers & garland. Medium shelf life (3 days)

16.2 Farmers feedback on performance of agronomic practices

Sl. No.	Agronomic practices	Farmer's feedback

1.	Aerobic Paddy Paustic-9	Drastic reduction of damage caused by rodents attack (due to dry field condition and free movement of cats).

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

Sl. No.	Pest and disease management in crops	Farmer's feedback
01.	Management of Rugose white fly in Coconut	Effective technology from NBAIR, Bangalore. But it needs to be implemented all the farmers of the cluster.
02.	Management of Coconut *Ganoderma* blight	CPCRI technology needs to refined exclusively for Sothern Karnataka region
03	Use of bio formulations for improving productivity, quality and management of diseases in Pomegranate	Application of AMC + ACT and drenching with Aspiriligus niger + Pseudomonas + VAM were reduced the disease incidence and improved the fruit quality. Application of Arka action plus and AMC has been recorded blight incidence by 14.2% and wilt incidence by 1.3%

16.4 Farmers feedback on performance of farm machinery technologies

Sl. No.	Farm machinery technologies	Farmer's feedback

16.5 Farmers feedback on performance of livestock and fisheries technologies

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

PART XVII - FINANCIAL PERFORMANCE

17A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India	Hessaraghatta	041187	The Director, IIHR, Bengaluru	37578009241		SBIN0041187
With KVK							

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	1,46,90,000	1,31,44,778	1,43,37,014
2	**Traveling allowances**			72,996
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			6,75,000
B	POL, repair of vehicles, tractor and equipments			2,30,000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			61,000
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			11,624
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			2,75,000
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			20,000
G	Training of extension functionaries			9,000
H	Maintenance of buildings			25,000
	EDP			30,000
	Soil Water Testing			25,000
I	Establishment of Soil, Plant & Water Testing Laboratory			27,000
J	Library			5000
TOTAL (A)				
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipment including SWTL & Furniture**	2,43,000	2,43,000	2,42,442
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		1,64,24,000	1,40,36,990	1,60,46,076

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

Year	Opening balance as on 1st January	Income during the year	Expenditure during the year	Net balance in hand as on 31st December of each year
April 2019 to March 2020	63,07,518	79,05,495	1,07,65,845	34,47,168

April 2020 to January 2021	34,47,168	81,13,248	1,07,17,862	8,42,554
January to December 2021	8,42,554	1,01,01,496	86,69,168	22,74,879

18. Details of HRD activities attended by KVK staff

Staff Name	Designation	Discipline	Training Title	Institute where attended	Dates
Shri. K.N. Jagadish	Subject Matter Specialist	Agril. Extension	Capacity Development Programme on Virtual Farmers Field School (Online Mode)	ICAR-ATARI Zone XI, UAHS, Shivamogga	14.06.2021
Shri. K.N.Jagadish	Subject Matter Specialist	Agril. Extension	Online Training Programme on Enhancing Resilience through Entrepreneurship (Online Mode)	ICAR-NAARM, Hyderabad	6-10 Dec 2021
Shri. K.N.Jagadish	Subject Matter Specialist	Agril. Extension	Training Module in Sericulture for Krishi Vigyan Kendra (KVKs)	CSR&TI, Mysuru, (Central Silk Board) Karnataka	13-17 Sept.2021
Dr.B.Hanumanthegowda	Subject Matter Specialist	Plant Protection	Training Module in Sericulture for Krishi Vigyan Kendra (KVKs)	CSR&TI, Mysuru, (Central Silk Board) Karnataka	13-17 Sept.20212021
Shri. J. M. Prashanth	Subject Matter Specialist	Horticulture	Online training on Plant Health Management and Amidest Covid Challenges and Strategies	ICAR-CPCRI Kasargod	1-3 Dec.2021
Shri. J. M. Prashanth	Subject Matter Specialist	Horticulture	Online training on IIHR Technologies	ICAR-IIHR, Bengaluru	17-18 Dec. 2021
Ms. Radha R. Banakar	Subject Matter Specialist	Home Science	Online mushroom training course on Road map for KVKS to enhance mushroom production and consumption	ICAR-IIHR, Bengaluru	9-11 August 2021
Dr. Soma Shekhar	Subject Matter Specialist	Plant Breeding	National Online Training on Horticulture Genetic Resources Conservation and Utilization	ICAR-IIHR, Bengaluru	22-26 Nov.2021
Shri. N. Jayasankar	Assistant Chief Technical Officer (Computer-Lab.)	Computer Science	Online Training programme on Advances in Web and Mobile Application Development	ICAR-NAARM Hyderabad	6-10 Dec.2021

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

- KVK in collaboration with ICAR-Indian Institute of Horticultural Research, Bengaluru, organized Honeybee Rearing & Training Programme at Thippenahalli Madugiri Taluk Tumakuru District under Tribal sub plan project on 02.12.2021.

- ICAR-Indian Institute of Horticultural Research, Bengaluru and KVK Hirehalli organized planting material distribution to farmers under SCSP programme at Pavagada in collaboration with Madakari FPO on 05.06.2021.
- ICAR-Indian Institute of Horticultural Research, Bengaluru and KVK Hirehalli organized coconut planting material distribution to farmers under SCSP programme at Aladamarapalya, Tumakuru

  in collaboration with Gramachetana FPO on 05.06.2021.
- For Kasturi Rangappa Naika, DHAN, Nidagal and Madakari FPO's, handholding support was provided in running their business activities, apart from technical support. Farmers were covered under NFSM and NMOOP project by involving them for utilizing the improved varieties of Red gram (BRG-5) and Groundnut (K-6). Technological inputs of KVK like AMC and Micronutrient specials were provided for their FPO on discounted rate.
- KVK Supported Hebbur Horticulture FPO, Horticulture FPO, Pavagada on crop management related activities, Marketing support to sell their products.
- KVK is instrumental in provision of machineries to FPOs: Swavalambi utpadakara samsthe, Madakari Souharda Co-operative Limited, Suvarnamukhi Souharda Co-operative Limited, Gramachetana.

Distribution of Planting Materials under SCSP Project at Pavagada

Distribution of coconut Planting Materials under SCSP Project at Aladamarapalya

Tamarind lollipop Machinery to Suvarnamukhi Souharda Co-operative Badavanahalli

Supporting with Ragi harvesting machine, Swavalambi FPO, Sira