

ICAR-KRISHI VIGYAN KENDRA, GADAG

ANNUAL REPORT –2022-23

(FOR THE PERIOD FROM 01 APRIL, 2022 TO 31 MARCH 2023)



ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti
Gadag district, Karnataka State
Pincode: 582205

Website: <https://kvkgadag.icar.gov.in/> E-mail: kvk.Gadag@icar.gov.in
Host Organisation: Agricultural Science Foundation, Hulkoti



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-K.H.Patil Krishi Vigyan Kendra, Hulkoti, Gadag dist.	(08372)289606 /289325	-	kvk.Gadag@icar.gov.in kvkhulkoti@gmail.com	www.kvkgadag.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		
Agricultural Science Foundation, Hulkoti Gadag dist.	(08372) 289069	-	hulkotiasf@gmail.com	www.asf.ind.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. L.G. Hiregoudar	-	9448358772 8073642868	laxs1961@gmail.com

1.4. Year of sanction: 1985**1.5. Staff position as on 31 March 2023**

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M / F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Level	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Head/Senior Scientist	Dr. L.G. Hiregoudar	Programme Coordinator	M	Crop Physiology	M.Sc (Agri), PhD	L-14	218200	05.09.1992	P	OBC
2	Scientist/SMS	Dr. Sudha V. Mankani	Subject Matter Specialist	F	Home Science	M.H.Sc, PhD	L-12	119300	26.06.1995	P	OBC
3	Scientist/SMS	Mr. N.H. Bhandi	Subject Matter Specialist	M	Soil Science	M.Sc (Agri)	L-11	96600	01.06.2005	P	OBC
4	Scientist/SMS	Mrs. Hemavati R.H.	Subject Matter Specialist	F	Horticulture	M.Sc (Horti)	L-10	61300	14.02.2020	P	OBC
5	Scientist/SMS	Dr. Vinayak Niranjana	Subject Matter Specialist	M	Ag. Engineering	M.Tech(Ag .Eng), PhD	L-10	57800	11.10.2021	P	OBC
6	Scientist/SMS	VACANT	Subject Matter Specialist		Agronomy						
7	Scientist/SMS	VACANT	Subject Matter Specialist		Ag. Extension						
8	Programme Assistant (Lab Tech.)	Dr. B.M. Murgod	Programme Assistant	M	Animal Science	B.V. Sc	L-7	60400	25.06.2007	P	OBC

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M / F	Discipline	Highest Qualification (for PC, SMS and Prog. Asstt.)	Pay Level	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
9	Programme Assistant (Computer)	Mrs. Lalita S.Asuti	Computer Programmer	F	-	M.Sc (IT)	L-7	66000	01.06.2005	P	OBC
10	Programme Assistant/ Farm Manager	Mr. Suresh L. Halemani	Farm Manager	M	-	B.Sc (Agri.)	L-7	53600	01.02.2011	P	OBC
11	Assistant	Mr. M.B. Jakkanagoudra	Assistant	M	-	M.Com	L-7	60400	25.06.2007	P	OBC
12	Jr. Stenographer	Mr. T.K. Sai Swaroop Rao	Jr. Stenographer	M	-	SSC & Certificate in Stenography	L-4	30500	15.12.2016	P	OBC
13	Driver - 1	Mr. N.L. Hadapad	Driver-Cum-Mechanic	M	-	7th Std.	L-4	46100	03.09.1992	P	OBC
14	Driver - 2	Mr. G.D. Madivalar	Driver-Cum-Mechanic	M	-	7th Std.	L-4	41000	26.06.1995	P	OBC
15	SS-2	Mrs. Savita V. Karadani	Field Assistant	F	-	PUC	L-1	19700	14.02.2020	P	OBC
15	SS-1	VACANT	Field Assistant								

1.6. Total land with KVK (in ha):28.0 ha

S. No.	Item	Area (ha)
1	Under Buildings	1.5
2.	Under Demonstration Units	0.5
3.	Under Crops	12.0
4.	Orchard/Agro-forestry	14.0
5.	Others	-

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs. in lakhs)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	1996	800	33.46	-	-	-
2.	Farmers Hostel	ICAR	1997	550	17.26	-	-	-
3.	Staff Quarters	ICAR	31-03-2006	400	25.82	-	-	-
	1							
	2							
	3							
	4							
	5							
	6							
4.	Demonstration Units							
	1. Dairy	ICAR	31-03-1997	50	4.00	-	-	-
	2. Sheep & goat	ICAR	31-03-1997	50	2.63	-	-	-
	3. Organic input production unit	ICAR	31-03-2011	67	3.00			
5	Fencing	ICAR	31-03-2011		8.00			
6	Rain Water harvesting system	ICAR	31-03-2007	-	10.00	-	-	-
7	Threshing floor	ICAR	31-03-2011	278	2.00	-	-	-
8	Farm godown	ICAR	31-03-2011	70	3.00	-	-	-
9	Vermi Compost	DDB	31-03-2002	100	3.50	-	-	-
10	Vehicle & implement shed	ICAR	31-03-2011	80	3.00	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs. in lakhs)	Total kms. Run	Present status
Jeep (Mahindra Bolero)	2009	6.00	218412	Placed order for vehicle under replacement of vehicle
Tractor	2003	5.00	12460Hrs	Needs replacement
Motor cycle - I	2004	0.40	76728	Needs replacement
Motor cycle - II	2009	0.50	56632	Good

C) Lab Equipment & AV aids

Name of the equipment	Year of purchase	Quantity (No.)	Cost (Rs. in lakhs)	Present status
Computer	2008	1	1.00	Good
Digital Amplifier with Public Address System	2013	1	0.36	Good
OHP	2004	1	0.25	Good

Name of the equipment	Year of purchase	Quantity (No.)	Cost (Rs. in lakhs)	Present status
Motorised projection screen	2013	1	0.21	Good
White board	2013	1	0.14	Good
LED display board	2013	1	0.10	Good
Lap top Computer	2007	1	0.53	Not Good
LCD	2007	1	0.45	Good
Ceramic black board	2007	1	0.12	Good
Lab equipments for dairy and goatery	2011	1	0.50	Good
Generator	2011	1	1.00	Good
EPBAX system	2011	1	0.50	Good
Equipments of Plant health diagnostic unit	2011	1	10.00	Good
Laptop computer	2016-17	1	0.589	Good
Desktop computer	2016-17	1	0.25	Good
Printer	2016-17	1	0.181	Good
Copier	2016-17	1	0.595	Good
Projector	2016-17	1	0.48	Good
Digital camera	2016-17	1	0.242	Good
Pico projector	2016-17	1	0.145	Good
Amplifier	2016-17	1	0.055	Good
Class room chairs	2016-17	1	0.21	Good
File cabin	2016-17	1	0.20	Good
Hostel furniture	2016-17	1	0.59	Good
Projector Screen	2020-21	1	0.24	Good
Laptop	2020-21	1	0.79	Good
Desktop	2020-21	1	0.44	Good
Office furniture	2020-21	1	1.02	Good
Desktop (All in one)	2022	1	1.26	Good
Laptop	2022	1	0.62	Good
Printer (All in one)	2022	1	0.30	Good

D) Farm equipment and implements

Name of the equipment/implement	Year of purchase	Quantity (No.)	Cost (Rs.)	Present status
Hipro lab model gin machine	2006	1	0.70	Good
Seed delinting machine	2006	1	0.18	Good
Cotton seed sorter	2007	1	0.50	Good
Seed treatment drum	2007	1	0.40	Good

Name of the equipment/implement	Year of purchase	Quantity (No.)	Cost (Rs.)	Present status
Rotary weeder	2009	1	0.84	Good
Laser guided land leveler	2011	1	3.89	Good
Power tiller	2011	1	2.72	Good
Rotavator	2022	1	1.23	Good
Tamarind de-seeder	2022	1	1.11	Good

1.8. Details of SAC meeting organised

Date	Number of Participants	Salient Recommendations	Action taken	Remarks, if any
22-02-2023	19	Introduce more perennial fruits and vegetables in Nutri Garden.	These recommendations are included in the Action Plan of 2023-24	
		Conduct trainings on vegetable and fruit processing.		
		Include cucumber variety released by IIHR under Vegetable Cafeteria.		
		Impart trainings on IFS in order to enable farmers to get good income and give thrust to animal components also		
		Give thrust to Intercropping and Mixed cropping during trainings.		
		Train farmers to take up seed treatment in Redgram crop to reduce incidence of wilt problem in the district		
		Pure Byadagi variety seed production in Chilli crop be encouraged among farmers so as to make pure Byadagi variety seeds available to villagers.		
		Conduct group meeting / crop seminar in Mango crop to overcome pest problem involving Subject Experts.		
		Advise farmers for going to buffalo rearing as buffalo milk fetches good market price and thus farmers can get good returns.		
		Advise farmers for planting fodder trees on bunds so as to feed animals, sheep and goat even during off-seasons.		
		Take up Paraquat spray for shedding of leaves in Greengram before mechanical harvesting to ease the harvesting operation and also suggested to go for eco-friendly treatment with high salt concentrate in place of chemical i.e Paraquat.		
		Take up method demonstrations of seed treatment in Greengram seeds before sowing to manage Yellow Vein Mosaic Virus.		
		Promote BJV-44 variety of Rabi Sorghum through demonstrations.		
		Advise farmers to go for Ridges and Furrows in Chilli crop in case of excess rainfall during the season.		
Advise farmers to go for wider spacing (row to row) in Bengalgram crop for good mechanical harvesting.				

PART II - DETAILS OF DISTRICT

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

S. No	Farming system/enterprise
Rainfed situation	
1	Agricultural crops + Dairy enterprise
2	Agricultural crops + Horticultural crops
3	Agriculture + Horticulture + Dairy enterprise
Irrigated situation	
1	Agriculture + Dairy enterprise
2	Agriculture + Horticulture + Dairy enterprise

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

S. No	Agro-climatic Zone	Characteristics
1	Northern Dry Zone-3 and Region-2 of the state	This zone comprises of Gadag, Ron, Mundaragi, Gajendragad and Naragund blocks. Rainfall ranges from 450-600 mm with 30-35 rainy days mainly from June – September months. Maximum temperature ranges from 36-40 ^o c. This zone is drought prone. Kharif crops grown: Greengram, Groundnut, Onion, Bt. Cotton Chilli, Sunflower, Maize etc Rabi crops grown: Bengalgram, Rabi Sorghum, wheat, sunflower etc
2	Northern Semi Transitional Zone-8 and Region-4 of the state	This zone comprises of Shirahatti and Laxmeshwar blocks. Average rainfall is 619 mm. Gets rainfall from both South-West and North-East monsoons. Kharif crops grown: Greengram, Sorghum, Bt-cotton, Groundnut, Sunflower, Millets, Maize, Onion, Chilli etc Rabi crops grown: Rabi Sorghum, Sunflower, Bengal gram, Wheat etc

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Very shallow red gravelly loam soils	Less water holding capacity with less runoff and high infiltration rate,	26,625
2	Shallow red gravelly mixed with deep black soils	Less water holding capacity with moderate runoff and high infiltration rate. It contains high sand percent.	10,659
3	Medium deep red clayey soils	Moderate water holding capacity with less runoff and moderate infiltration rate. It contains high clay percent.	25,210
4	Medium deep red gravelly clay soils	Moderate water holding capacity with less runoff and high infiltration rate. It contains high clay percent.	63,163
5	Deep red gravelly clay soils	High water holding capacity with less runoff and less infiltration rate. It contains high clay percent.	8,290
6	Medium deep black clayey soils	Moderate water holding capacity with high runoff and less infiltration	1,50,117
7	Deep black clayey soils	More water holding capacity with low infiltration rate of water & clay content is more than 35 percent	67,444
8	Deep black calcareous clayey soils	More water holding capacity with low infiltration rate and high runoff. It contains more percent of Calcium	92,238
9	Deep alluvial black clayey soils	More water holding capacity with low infiltration rate and high run off.	17,088
10	Deep alluvial clayey soils (salt affected in patches)	More water holding capacity, less infiltration rate and high run off affects the seed germination	1,053
Total			4,61,887

**2.4. Area, Production and Productivity of major crops cultivated in the district
(Reference year: 2022-23)**

Sl. No	Crop	Area (ha)	Production (Tons)	Productivity(Kg /ha)
	Cereals			
1	Maize	113100	489625	4329
2	Rabi Sorghum	76846	54471	709
3	Wheat (Irrigated)	19250	37500	1948
4	Paddy (Irrigated)	4300	20500	4767
	Pulses			
4	Greengram	125000	96000	768
5	Bengalgram	150000	149000	993
6	Redgram	3373	2150	637
	Oilseeds			
7	Groundnut	44560	84400	1894
8	Sunflower	28300	45400	1604
9	Safflower	5600	3300	589
	Commercial crops			
9	Bt. Cotton	28300	146970	5193
10	Onion	29671	343420	11.5 tonns
12	Dry chillies	15102	72489	480

Source: Department of Agriculture, Gadag – 2022-23

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April, 2022	58.0	37.42	23.95	47.65
May, 2022	160.0	33.88	22.65	70.00
June, 2022	96.0	29.38	21.88	81.34
July, 2022	124.7	27.13	21.53	88.21
August, 2022	143.1	27.18	21.03	88.71
September, 2022	218.4	27.91	20.78	87.02
October, 2022	164.1	26.80	19.07	85.85
November, 2022	1.2	26.64	17.26	85.67
December, 2022	14.0	27.05	16.43	82.86
January, 2023	0.0	30.56	15.49	61.60
February, 2023	0.0	34.50	17.27	42.60
March, 2023	0.0	37.37	21.41	37.13

2.6. Production and Productivity of Livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	24153	25968 Lit. of milk/day	5.22 Kg/day
<i>Indigenous</i>	118502	45944 Lit of milk/day	2.40 Kg/day
Buffalo	60989	64088 Lit. of milk/day	2.80 Kg/day
Sheep			
<i>Crossbred</i>	335		
<i>Indigenous</i>	258712	158 tons/year (meat)	15 Kg/animal
Goats	106353	134 tons/year (meat)	16 Kg/animal
Pigs			
<i>Crossbred</i>	557		
<i>Indigenous</i>	6012		
Rabbits	341		
Dogs	16711		
Others	311		
Poultry birds (egg production)	156275	72 lakh/year	100 per year

Source: Gadag District Statistical Report-FY 2018-19

Note: The data for the year 2022 is not available at District Statics Office / Office of Deputy Directory of AH & VS

2.7 District profile has been **Updated** for 2022 : Yes (Latest available data is uploaded)

2.8 Details of Operational area / Villages

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
1	Gadag	Asundi	One Year	Maize	<ul style="list-style-type: none"> • Low yield due to cultivation of Maize as a sole crop • Imbalanced nutrition • Incidence of Army worm • Drudgery during threshing and winnowing of Maize • Incidence of Turcicum leaf blight and Bacterial stalk rot • High labour requirement for harvesting of maize 	<ul style="list-style-type: none"> • FLD on ICM practices in Maize • FLD on Maize + Redgram intercropping • Demonstration of self propelled maize harvester • Trainings on ICM practices in maize • Trainings on use of machineries in maize cultivation • Supply of literature & Field day
				Greengram	<ul style="list-style-type: none"> • Low yield due to use of local variety • Low yield due to incidence of Powdery mildew and Pod borer • Seed shattering problem during harvesting in local variety China Moong • Moisture stress due to long dry spells in Kharif 	<ul style="list-style-type: none"> • OFT of Greengram varieties for higher productivity • FLD on ICM practices in Greengram • FLD on Compartmental Bund Former • Training on ICM in Greengram • Supply of literature • Field day
				Spreading Groundnut	<ul style="list-style-type: none"> • Low productivity in existing local varieties • Imbalanced nutrition • Incidence of leaf minor and leaf spot 	<ul style="list-style-type: none"> • OFT on improved varieties of spreading groundnut • Trainings on ICM practices in Spreading groundnut • Supply of relevant literature • Field day
				Bt. Cotton	<ul style="list-style-type: none"> • Incidence of Pink bollworm • Incidence of Leaf reddening • Incidence of sucking pests 	<ul style="list-style-type: none"> • Training on use of Splat pheromone technique to control pink bollworms with method demonstration • Training on ICM practices in cotton • Field day

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
				Bengalgram	<ul style="list-style-type: none"> • Low yield due to cultivation of local varieties • Low yield due to incidence of pod borer • Incidence of Wilt and Rust 	<ul style="list-style-type: none"> • FLD on ICM practices in Bengalgram • Training on ICM practices in Bengalgram • Supply of literature • Field day
					<ul style="list-style-type: none"> • Low yields due to moisture stress 	<ul style="list-style-type: none"> • FLD on solar nipping machine • FLD on compartmental bund former • Trainings on use of machineries in chickpea cultivation • Field day
				Rabi Sorghum	<ul style="list-style-type: none"> • Low productivity due to use of local variety • Incidence of shoot fly and stem borer • Incidence of smut diseases • Problem of lodging in existing variety 	<ul style="list-style-type: none"> • FLD on ICM practices in Rabi Sorghum • Training on ICM practices in Rabi Sorghum • Supply of literature • Field day
				Summer groundnut operation	<ul style="list-style-type: none"> • Low yield due to use of local varieties • Incidence of collar rot and root grub 	<ul style="list-style-type: none"> • FLD on ICM in Summer Groundnut • Training on ICM practices in summer groundnut • Field Day • Supply of literature
					<ul style="list-style-type: none"> • Drudgery of in manual harvesting • Low income due to high labour cost 	<ul style="list-style-type: none"> • OFT on mechanical harvesting of summer groundnut • Trainings on use of machineries in groundnut cultivation
				Vegetable crops	<ul style="list-style-type: none"> • Low income due to cultivation of local varieties • Application of imbalanced fertilizers 	<ul style="list-style-type: none"> • FLD on Vegetable Cafeteria (Ridgegourd, Radish, Spinach and Dolichos Bean) • Assessment of high yielding okra hybrids for higher productivity

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
						<ul style="list-style-type: none"> • Trainings on ICM in vegetable crops • Supply of literature • Field day
				Red Chilli	<ul style="list-style-type: none"> • Non-availability of quality and pure seeds of Byadgi Dabbi • Lack of proper knowledge on ICM practices resulting in poor productivity and quality with high incidence of pest and diseases • Improper post-harvest management (Drying & storage of chilli and its powder) 	<ul style="list-style-type: none"> • FLD on ICM in Chilli crop • FLD on drying of Red chillies in Solar Drier • Assessment of Shelf Life of Chilli powder • Assessment of packaging methods for chilli powder storage • Training on ICM • Supply of relevant literature • Farm advisory services • Rendering Kisan Mobile Advisory Services to farmers • Field day • Seed production
				Onion	<ul style="list-style-type: none"> • Imbalanced nutrition application without soil testing • Low productivity in existing variety Bellary Red onion • Low keeping quality of bulbs in existing variety • High incidence of thrips & purple blotch • High incidence of weeds • High labour requirement in detopping of harvested onion crop 	<ul style="list-style-type: none"> • FLD on introduction of Bhima Super variety along with ICM practices • Trainings on ICM in onion crop • Seed production activities with identified seed farmers for supply of quality seeds of Bhima Super variety in village • Supply of relevant literature • Field day
				Banana	<ul style="list-style-type: none"> • Less market price • No value addition 	<ul style="list-style-type: none"> • Training on Bakaahu products
				Milch cattle	Low productivity of milk due to non-availability of green fodder	<ul style="list-style-type: none"> • FLD on fodder cafeteria and nutrition in milch cattle

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
					throughout the year.	<ul style="list-style-type: none"> • Training on scientific management of milch cattle • Supply of literature • Field visit • Mobile advisory services • Field day • Animal health camps in collaboration with Department of Animal Husbandry
				Nutrition and health	Less consumption of fruits and vegetables	<ul style="list-style-type: none"> • FLD on Nutri Garden • Training on balanced diet and nutrition • Training on importance of millets in diet • Field day
				PHT in Chilli	Unhygienic way of drying of Red Chillies	<ul style="list-style-type: none"> • FLD on solar drying of Red Chillies • Training on use of solar dryer for drying of chillies
				Grain storage	Incidence of stored grain pest	<ul style="list-style-type: none"> • FLD on demonstration of Super grain bags • Training on management of stored grain pests • Home visits and interactive meetings • Supply of literature • Supply of super grain bags
				Drudgery	<ul style="list-style-type: none"> • Drudgery in cleaning & grading of grains • Less market price due to non-grading of grains 	<ul style="list-style-type: none"> • Demonstration on spiral separator on Greengram, Bengalgram, Rabi Sorghum etc. • UV protected aprons for farm activities

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
				Organic input production	Lack of awareness on importance of organic inputs among farm women	<ul style="list-style-type: none"> • Training • Supply of literature •
				Borewell	Decreased ground water level and less water availability for irrigation	<ul style="list-style-type: none"> • Training on recharge of ground water through borewell • Field visits to demonstration units of artificial recharge of ground water through borewell • Supply of literature
2	Mundaragi	Halligudi	One Year	Greengram	<ul style="list-style-type: none"> • Low yield due to use of local varieties • Incidence of Leaf spot and Powdery mildew • Incidence of Yellow Mosaic Virus and Leaf spot Moisture stress due to long dry spells in Kharif	<ul style="list-style-type: none"> • FLD on ICM practices in Greengram • Training on ICM practices in Greengram • FLD on Compartmental Bund Former • Supply of literature • Field day •
				Bengalgram	<ul style="list-style-type: none"> • Low yield due to cultivation of local varieties • Low yield due to incidence of pod borer • Incidence of Wilt and Rust 	<ul style="list-style-type: none"> • FLD on ICM practices in Bengalgram • Training on ICM practices in Bengalgram • Field day • Supply of literature
					Reduced yield due to moisture stress	<ul style="list-style-type: none"> • FLD on compartmental bund former • FLD on solar nipping machine • Trainings on use of machineries in chickpea cultivation
				Safflower	<ul style="list-style-type: none"> • Low productivity due to cultivation of local variety • Incidence of sucking pests • Incidence of Capsule borer • Incidence of Alternaria leaf spot 	<ul style="list-style-type: none"> • OFT on Assessment of Annigeri 2020 and ISF-764 varieties in Safflower crop • Training on ICM practices in Safflower

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
						<ul style="list-style-type: none"> • Supply of literature • Field Day
				Rabi Sorghum	<ul style="list-style-type: none"> • Low productivity due to use of local variety • Incidence of shoot fly and stem borer • Incidence of smut diseases • Problem of lodging in existing variety 	<ul style="list-style-type: none"> • FLD on ICM practices in Rabi Sorghum • Training on ICM practices in Rabi Sorghum • Supply of literature • Field day
				Nutri cereal Foxtail millet	Low productivity in existing local variety	<ul style="list-style-type: none"> • FLD on ICM practices in Nutri cereal Foxtail millet variety DHFt-109-3 • Trainings • Supply of literature & Field day
				Bio-fortified Pearl millet	Long dry spells result in low yields in majority of the Kharif crops, hence introducing bio-fortified and drought resistant pearl millet	<ul style="list-style-type: none"> • FLD on ICM practices in bio-fortified Pearl millet variety VPMV-9 • Organoleptic evaluation of Roti • Analysis of Zinc and Iron in the flour • Trainings • Supply of literature & Field day
				Sunflower	<ul style="list-style-type: none"> • Incidence of Necrosis • Incidence of Red headed caterpillar (RHHC) 	<ul style="list-style-type: none"> • Training on ICM practices in Sunflower • Supply of literature
				Red Chilli	<ul style="list-style-type: none"> • Non-availability of quality and pure seeds of Byadgi Dabbi • Lack of proper knowledge on ICM practices resulting in poor productivity and quality with high incidence of pest and diseases 	<ul style="list-style-type: none"> • FLD on ICM in Chilli crop • Training on ICM • Supply of relevant literature • Farm advisory services • Rendering Kisan Mobile Advisory Services to farmers • Field day
				Onion	<ul style="list-style-type: none"> • Low income due to cultivation of local varieties 	<ul style="list-style-type: none"> • FLD on introduction of Bhima Super variety along with ICM

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
					<ul style="list-style-type: none"> • Imbalanced nutrition without soil testing • Low keeping quality bulbs in existing variety • High incidence of thrips & purple blotch • High incidence of weeds High labour requirement in detopping of harvested onion crop	practices <ul style="list-style-type: none"> • Trainings on ICM in onion crop • Demonstration of battery operated detopper • Trainings on use of battery operated detopper • Seed production activities with identified seed farmers • Supply of quality seeds of Bhima Super variety • Supply of relevant literature • Field day
				Rabi crops	Non profitability in existing Rabi crops due to moisture stress during Rabi Season	<ul style="list-style-type: none"> • FLD on introduction of Ashwagandha crop for higher income and drought mitigation • Supply of relevant literature • Field day
				Rabi crops	Non profitability in existing Rabi crops due to moisture stress during Rabi Season	<ul style="list-style-type: none"> • FLD on introduction of Ajawain crop for higher income and drought mitigation • Supply of relevant literature • Field day
				Milch cattle	Low productivity of milk due to non-availability of green fodder throughout the year.	<ul style="list-style-type: none"> • Training on scientific management of milch cattle • Supply of literature • Mobile advisory services
				Sheep	Low body weight in lambs	<ul style="list-style-type: none"> • Training on scientific management of sheep
				Goat	Low body weight in kids	<ul style="list-style-type: none"> • Training on scientific management of goats
				Nutrition and health	<ul style="list-style-type: none"> • Less consumption of fruits and vegetables 	<ul style="list-style-type: none"> • FLD on Nutri Garden • Training on balanced diet and nutrition

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
						<ul style="list-style-type: none"> • Training on healthy foods for healthy life • Training on importance of millets in diet • Field day
				Grain storage	Incidence of stored grain pest	<ul style="list-style-type: none"> • FLD on demonstration of Super grain bags • Training on management of stored grain pests • Home visits and interactive meetings • Supply of literature • Supply of super grain bags
				Drudgery	<ul style="list-style-type: none"> • Drudgery in cleaning & grading of grains • Less market price due to non-grading of grains 	<ul style="list-style-type: none"> • Demonstration on spiral separator on Greengram, Bengalgram, Rabi Sorghum etc. • UV protected aprons for farm activities
				Organic input production	<ul style="list-style-type: none"> • Lack of awareness on importance of organic inputs among farm women 	<ul style="list-style-type: none"> • Training • Supply of literature
3	Laxmeshwar	Akkigund	One Year	Maize	<ul style="list-style-type: none"> • Low yield due to cultivation of Maize as a sole crop • Imbalanced nutrition • Incidence of Army worm • Drudgery during threshing and winnowing of Maize • Incidence of Turcicum leaf blight and Bacterial stalk rot • High labour requirement for harvesting of maize 	<ul style="list-style-type: none"> • FLD on ICM practices in Maize • FLD on Maize + Redgram intercropping • Demonstration of self propelled maize harvester • Trainings on ICM practices in maize • Trainings on use of machineries in maize cultivation • Supply of literature & field day

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
				Spreading groundnut	<ul style="list-style-type: none"> • Low productivity in existing local varieties • Imbalanced nutrition • Incidence of leaf minor and leaf spot 	<ul style="list-style-type: none"> • OFT on improved varieties of spreading groundnut • Trainings on ICM practices in Spreading groundnut • Supply of relevant literature
				Bt. Cotton	<ul style="list-style-type: none"> • Incidence of pink bollworm • Problem of leaf reddening • Incidence of sucking pests 	<ul style="list-style-type: none"> • Training on use of Splat pheromone technique to control pink bollworm and method demonstration • Training on ICM practices in cotton
					Drudgery of operation in existing spraying methods	<ul style="list-style-type: none"> • OFT on assessment of different spraying equipment • Trainings on use of machineries in Bt. Cotton cultivation
				Greengram	<ul style="list-style-type: none"> • Low yield due to use of local varieties • Incidence of Powdery mildew • Incidence of Yellow Mosaic Virus and Leaf spot 	<ul style="list-style-type: none"> • FLD on ICM practices in Greengram • Training on ICM practices in Greengram • Supply of literature • Field day •
				Blackgram	<ul style="list-style-type: none"> • Low yield due to use of local varieties • Incidence of Powdery mildew • Incidence of pod borer 	<ul style="list-style-type: none"> • OFT of high yielding varieties of Blackgram • Training on ICM practices in Blackgram • Supply of literature
				Bengalgram	<ul style="list-style-type: none"> • Low yield due to cultivation of local varieties • Low yield due to incidence of pod borer • Incidence of Wilt and Rust 	<ul style="list-style-type: none"> • OFT on assessment of high yielding varieties • FLD on ICM practices in Bengalgram • Training on ICM practices in Bengalgram • Field day&Supply of literature

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
				Wheat	<ul style="list-style-type: none"> • Low productivity due to use of local varieties • Incidence of termites and stem borer • Incidence of rust and leaf spot 	<ul style="list-style-type: none"> • Training on ICM practices in Wheat • Supply of literature
				Rabi Sorghum	<ul style="list-style-type: none"> • Incidence of Shoot fly and Stem borer • Incidence of Smut disease 	<ul style="list-style-type: none"> • FLD on ICM practices in Rabi Sorghum • Training on ICM practices in Rabi Sorghum • Supply of literature • Field day
				Nutri cereal Foxtail millet	Low productivity in existing local variety	<ul style="list-style-type: none"> • FLD on ICM practices in Nutri cereal Foxtail millet variety DHFt-109-3 • Trainings • Supply of literature & Field day
				Rabi crops	Non profitability in existing farming system due to moisture stress during Rabi season	<ul style="list-style-type: none"> • FLD on introduction of Ashwagandha crop for higher income and drought mitigation • Supply of relevant literature
				Borewell	Decreased ground water level and less water availability for irrigation	<ul style="list-style-type: none"> • Training on recharge of ground water through borewell • Field visits to demonstration units of artificial recharge of ground water through borewell • Supply of literature
				Milch cattle	Low productivity of milk due to non-availability of green fodder throughout the year.	<ul style="list-style-type: none"> • FLD on fodder cafeteria and nutrition in milch cattle • Training on scientific management of milch cattle • Supply of literature • Field visit • Mobile advisory services • Field day

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
						<ul style="list-style-type: none"> • Animal health camps in collaboration with Department of Animal Husbandry
				Goat	Low body weight in kids	<ul style="list-style-type: none"> • Training on scientific management of goats
				Nutrition and health	Less consumption of fruits and vegetables	<ul style="list-style-type: none"> • FLD on Nutri Garden • Training on balanced diet and nutrition • Training on healthy foods for healthy life • Training on importance of millets in diet • Field day
				Grain storage	Incidence of stored grain pest	<ul style="list-style-type: none"> • FLD on demonstration of Super grain bags • Training on management of stored grain pests • Home visits and interactive meetings • Supply of literature • Supply of super grain bags •
				Drudgery	<ul style="list-style-type: none"> • Drudgery in cleaning & grading of grains • Less market price due to non-grading of grains 	<ul style="list-style-type: none"> • Demonstration on spiral separator on Greengram, Bengalgram, Rabi Sorghum etc. • UV protected aprons for farm activities
				Organic input production	Lack of awareness on importance of organic inputs among farm women	<ul style="list-style-type: none"> • Training • Supply of literature • Field day

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
4	Naragund	Muganur	One Year	Maize	<ul style="list-style-type: none"> • Low productivity due to imbalanced nutrition • Incidence of Armyworm • Problem of leaf reddening • Incidence of Downey mildew 	<ul style="list-style-type: none"> • FLD on ICM practices in Maize • Training on ICM practices in maize • Supply of literature • Field day
				Greengram	<ul style="list-style-type: none"> • Low yield due to use of local varieties • Incidence of Powdery mildew • Incidence of Yellow Mosaic Virus and Leaf spot 	<ul style="list-style-type: none"> • FLD on ICM practices in Greengram • Training on ICM practices in Greengram • Supply of literature • Field day •
				Blackgram	<ul style="list-style-type: none"> • Low yield due to use of local varieties • Incidence of Powdery mildew • Incidence of pod borer 	<ul style="list-style-type: none"> • OFT on high yielding varieties of Blackgram • Training on ICM practices in Blackgram • Supply of literature
				Wheat	<ul style="list-style-type: none"> • Low productivity due to use of local varieties • Incidence of stem borer • Incidence of rust and leaf spot 	<ul style="list-style-type: none"> • Training on ICM practices in wheat • Supply of literature •
				Bengalgram	<ul style="list-style-type: none"> • Low yield due to cultivation of local varieties • Low yield due to incidence of pod borer • Incidence of Wilt and Rust • Non profitability in existing farming system due to moisture stress • Deterioration of soil physical properties due to unscientific use of machineries • Reduced Water Use Efficiency 	<ul style="list-style-type: none"> • OFT on assessment of high yielding varieties in Bengalgram crop • OFT on conservation agriculture practices • FLD on ICM practices in Bengalgram • FLD on Solar nipping machine • Training on ICM practices in Bengalgram • Field day • Supply of literature

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
				Rabi Sorghum	<ul style="list-style-type: none"> • Incidence of Shoot fly and Stem borer • Incidence of Smut disease 	<ul style="list-style-type: none"> • FLD on ICM practices in Rabi Sorghum • Training on ICM practices in Rabi Sorghum • Supply of literature • Field day
				Safflower	<ul style="list-style-type: none"> • Low productivity due to cultivation of local variety • Incidence of sucking pests • Incidence of Capsule borer • Incidence of Alternaria leaf spot 	<ul style="list-style-type: none"> • OFT on Assessment of Annigeri 2020 and ISF-764 varieties in Safflower crop • Training on ICM practices in Safflower • Supply of literature • Field Day
				Red Chilli	<ul style="list-style-type: none"> • Non-availability of quality and pure seeds of Byadgi Dabbi • Lack of proper knowledge on ICM practices resulting in poor productivity and quality with high incidence of pest and diseases • Unhygienic way of drying of Red Chillies 	<ul style="list-style-type: none"> • FLD on ICM in Chilli crop • FLD on solar drying of Red Chillies • Training on use of solar dryer for drying of chillies • Training on ICM • Supply of relevant literature • Farm advisory services • Field day • Seed production activities with identified seed farmers
				Onion	<ul style="list-style-type: none"> • Low productivity due to imbalanced nutrition • Low productivity due to cultivation of low yielding variety Double Red • Incidence of thrips reduces the yields 	<ul style="list-style-type: none"> • FLD on introduction of Bhima Super variety along with ICM practices • Trainings on ICM in onion crop • Seed production activities with identified seed farmers • Supply of quality seeds of Bhima Super variety • Supply of relevant literature & Field day

Sl. No.	Taluk	Name of the village	How long the village is covered under operational area of the KVK	Major crops & enterprises	Major problems identified	Identified Thrust Areas
				Milch cattle	<ul style="list-style-type: none"> • Low productivity of milk due to non-availability of green fodder throughout the year. 	<ul style="list-style-type: none"> • Training on scientific management of milch cattle • Supply of literature • Mobile advisory services
				Drudgery	<ul style="list-style-type: none"> • Drudgery in cleaning & grading of grains Less market price due to non-grading of grains 	<ul style="list-style-type: none"> • Demonstration on spiral separator on Greengram, Bengalgram, Rabi Sorghum etc. • UV protected aprons for farm activities
				Nutrition and health	<ul style="list-style-type: none"> Less consumption of millets, fruits and vegetables in daily diet 	<ul style="list-style-type: none"> • FLD on Nutri Garden • Training on health and nutrition, importance of millets in diet • Field day
				Grain storage	<ul style="list-style-type: none"> Incidence of stored grain pest 	<ul style="list-style-type: none"> • FLD on demonstration of Super grain bags • Training on management of stored grain pests • Home visits and interactive meetings • Supply of literature • Supply of super grain bags
				Dicoccum wheat	<ul style="list-style-type: none"> Nutritional importance and its value addition 	<ul style="list-style-type: none"> • Training on nutritional importance and its value addition

2.9 Priority thrust areas

S. No	Thrust area
1	Soil fertility management through production and application of bio-manures
2	Promotion of intercropping systems in Maize and Bt.Cotton crops
3	Promotion of JAKI-9218 & BGD-111-01 varieties of Bengalgram
4	Promotion of SPV-2217 variety of Rabi Sorghum
5	Promotion of nutri-farms
6	Popularisation of drudgery reduction equipments
7	Post harvest technologies
8	Livestock nutrition for higher milk productivity

3.B1. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										Supply of bio products	
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of live-stock (No.)	No.	Kg	
1	Varietal demonstration	Rabi Sorghum	Low productivity in exiting M-35-1 variety	-	Demonstration of SPV-2217 variety in Rabi Sorghum crop	2	-	-	6	3	-	-	-	10	
2	ICM	Maize		-	ICM in Maize	2	1	-	8	-	-	-	-	-	
3	Post harvest technology	Maize	Drudgery of operation involved in manual cob harvesting		Demonstration of self propelled Maize harvester	3	-	-	4	-	-	-	-	-	
4	Intercropping system	Maize+ Redgram	Low income due to sole crop	-	Maize+ Redgram (4:2) intercropping system	1	-	-	5	1.5 Qtls (Redgram)	0	0	3	20	
5	Varietal Demonstration	Foxtail Millet	Low productivity due to cultivation of local variety	-	Demonstration of nutri cereal crop foxtail millet with high yielding variety	2	-	-	2	0.75	-	-	-	-	
6	Varietal Demonstration	Pearl Millet		-	Introduction of bio-fortified	1	-	-	2	0.06	-	-	2	1.2	

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 live-stock (No.)	Supply of bio products	
													No.	Kg
					and drought resistant pearl millet									
7	Varietal Assessment	Greengram	Low productivity due to cultivation of local variety	Assessment of high yielding varieties of Greengram	-	2	-	-	2	0.5	-	-	1	2
8	Varietal Demonstration	Greengram	Low productivity due to cultivation of local variety	-	Demonstration of DGGV-2 variety in Greengram crop	2	-	-	4	1.25	-	-	2	10
9	Varietal Assessment	Blackgram	Low productivity due to cultivation of local variety	Assessment of Production potential of different Blackgram varieties under rainfed condition	-	2	-	-	4	0.7	-	-	2	2
10	Varietal Assessment	Bengalgram	Productivity of JAKI-9218 variety is low under irrigated	Assessment of potential productivity of DBGV-	-	4	-	-	5	4.0	-	-	-	1.5

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 live-stock (No.)	Supply of bio products	
													No.	Kg
			condition	204, NBeG-47 and NBeG-49 varieties										
11	Conservation agriculture practice	Bengalgram	Non profitability due to moisture stress, deterioration of soil physical properties due to repeated use of machineries especially Rotavators & reduced water application efficiency	Assessment of conservation agriculture practice for higher productivity in Chickpea preceded with Maize crop	-	3	-	1	8	0.3	-	-	-	-
12	ICM	Bengalgram	Low yield in existing local varieties	-	Demonstration of JAKI-9218 variety of Bengalgram crop	4	-	-	7	0.5	-	-	-	65

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions											
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of live-stock (No.)	Supply of bio products		
													No.	Kg	
13	Low Productivity	Bengalgram	Low productivity due to moisture stress	-	Demonstration of tractor operated bund former in Bengalgram crop	2	-	-	5	-	-	-	-	-	-
14	Drudgery reduction	Bengalgram	High labour and time consumption in hand nipping method	-	Demonstration of solar nipping machine in Bengalgram crop	3	-	-	8	-	-	-	-	-	-
15	Varietal Assessment	Spreading Groundnut	Productivity of existing local varieties is very less under rainfed condition	Assessment of Spreading Groundnut varieties for higher productivity	-	2	-	-	6	1.8	-	-	-	-	-
16	Varietal assessment	Safflower	Low productivity due to cultivation of local variety	Assessment of different Safflower varieties for higher productivity	-	2	-	-	5	0.63	-	-	-	-	-
17	ICM	Safflower	Low productivity due to cultivation	-	Demonstration of ICM practices in high	3	-	-	4	0.86	-	-	-	-	-

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 live-stock (No.)	Supply of bio products		
													No.	Kg	
			of local variety		yielding ISF-764 variety of Safflower										
18	Integrated Crop Management	Onion	Low income due to cultivation of local varieties Double red & Bellary red	-	Demonstration of ICM in Red onion variety Bheema Super	8	-	-	10	0.25	-	-	-	-	
19	Integrated Crop management in Chilli	Red Chilli (Byadagi Dabbi)	Non-availability of quality and pure seeds of Byadagi Dabbi, high incidence of sucking pests leading to murda complex disease & anthracnose disease Lack of proper knowledge on ICM	-	Integrated Crop Management ByadagiChilli	9	-	-	9	0.14	-	-	-	-	

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 live-stock (No.)	Supply of bio products	
													No.	Kg
			practices resulting in poor productivity and quality Improper post-harvest management											
20	Varietal Assessment	Okra	Existing hybrids are low yielding and resulting in low income	Assessment of Okra Hybrids for higher productivity	-	4	-	-	10	0.06	-	-	-	-
21	Varietal demonstration	Vegetable Crop Cafeteria	Low productivity and income due to non-availability of improved vegetable varieties and less profit as farmers grow any of the vegetable crop	-	ICM in Vegetable crop cafeteria	5	-	-	10	0.04 Qtls: Ridgegourd seeds (Arka Prasana variety), 0.4Qtls: Dolichos bean seeds(Arka Amogh variety), 0.03Qtls:Spinach seeds (Arka Anupam variety)&	-	-	-	-

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 live-stock (No.)	Supply of bio products		
													No.	Kg	
											0.01Qtls: Radish seeds(Arka Nishant variety)				
22		Ashwagan dha	Non profitability in existing cropping pattern due to vagaries of Monsoon and lack of crop diversification in field crops resulting in income insecurity to the farmers	-	Introduction of Ashwagand ha crop	3	-	-	5	0.4	-	-	-	-	
23		Ajwain	Non profitability in existing cropping pattern due to vagaries of Monsoon and lack of crop	-	Introductio n of Ajwain crop	2	-	-	3	0.1	-	-	-	-	

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of live-stock (No.)	Supply of bio products	
													No.	Kg
			diversification in field crops resulting in income insecurity to the farmers											
24	Health & Nutrition	Nutrition Garden	Lack of awareness on Nutri Garden & less consumption of fruits and vegetables	-	Nutri Garden	10	1	3	15	10 Kg	200	-	-	1025
25	Post harvest technology	Solar Dryer	Unhygienic way of drying of Red Chillies	-	Demonstration of Solar Dryer	2	-	-	5	-	-	-	-	-
26	Grain storage	Super grain bags	Incidence of stored pest	-	Demonstration of Super grain bags	1	-	-	1	-	-	-	-	-
27	Farm Machineries	Bt. Cotton	<ul style="list-style-type: none"> Incidence of pests, especially white flies and thrips Incidence of 	Assessment of different spraying equipment for effective pest	-	2	-	-	3	-	-	-	-	-

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	
			disease especially Angular leaf spot • Drudgery of operation in existing spraying methods	managem ent in Bt. Cotton											
28	Farm Machineri es and Drudgery Reduction	Onion	Drudgery of operation in manual detopping of harvested onions	-	Demonstra tion of Battery Operated Onion Detopper (Under Demonstra tion of ICM practices in Red onion variety Bhima Super)	2	-	-	3	-	-	-	-	-	-
29	Nutrition Managem ent in dairy animals	Fodder production	Low productivity of milk in CB cow due to Non-cultivation of	-	Demonstra tion of Fodder Production	1	12	2	15	1.05	40931	-	-	-	-

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 live-stock (No.)	Supply of bio products		
													No.	Kg	
			perennial fodder and grass species												

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 (Extension activities)
1	2	3	4	5	6	7	8
1	Demonstration of SPV-2217 variety in Rabi Sorghum crop	UAS, Dharwad	Rabi Sorghum	-	40	2	6
2	ICM in Maize	UAS, Dharwad	Maize	0	20	2	8
3	Demonstration of self propelled Maize harvester	Kissan Kraft	Maize	-	3	3	4
4	Maize + Redgram intercropping system	UAS, Dharwad	Maize + Redgram	-	6	1	5
5	Demonstration of nutri cereal crop foxtail millet with high yielding variety DHFt-109-3	UAS, Dharwad	Foxtail Millet	-	25	2	2
6	Introduction of bio-fortified and drought resistant pearl millet VPMV-9	UAS, Dharwad	Pearl Millet	-	3	1	2
7	Assessment of high yielding varieties of Greengram <ul style="list-style-type: none"> • DGGV-2 • DGGV-7 	UAS, Dharwad	Greengram	3	-	2	2
8	Demonstration of DGGV-2 variety in Greengram crop (ICM practices)	UAS, Dharwad	Greengram	-	25	2	4

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Extension activities)
9	Assessment of Production potential of different Blackgram varieties under rainfed condition <ul style="list-style-type: none"> • DBGV-5 • BDU-12 	UAS, Dharwad UAS, Raichur	Blackgram	5	-	2	5
10	Assessment of potential productivity of DBGV-204, NBeG-47 and NBeG-49 varieties	UAS, Dharwad PJTSAU, Hyderabad	Bengalgram	5	-	4	5
11	Assessment of conservation agriculture practice for higher productivity in Chickpea preceded with Maize crop	PAU, Ludhiana	Bengalgram	3	-	3	1
12	Demonstration of JAKI-9218 variety of Bengalgram crop	UAS, Dharwad	Bengalgram		25	4	7
13	Demonstration of tractor operated bund former in Bengalgram crop	UAS, Raichur	Bengalgram	-	10	2	5
14	Demonstration of solar nipping machine in Bengalgram crop	UAS, Raichur	Bengalgram	-	10	3	8
15	Assessment of Spreading Groundnut varieties for higher productivity <ul style="list-style-type: none"> • DSG-1 • GJG-19 	UAS, Dharwad JAU, Gujarat	Spreading Groundnut	3	-	2	6
16	Assessment of different Safflower varieties for higher productivity under rainfed condition	ICAR-IIOR, Hyderabad & UAS, Dharwad	Safflower	5	-	2	5
17	Demonstration of ICM practices in high yielding ISF-764 variety of Safflower	ICAR-IIOR, Hyderabad	Safflower	-	25	2	5
18	ICM in Red onion variety Bheema Super	UHS Bagalkot and ICAR-DOGR, Pune	Red Onion	-	25	8	10
19	ICM in ByadagiChilli	ICAR- IIHR, Bengaluru and UHS, Bagalkot	Red chilli	-	14	9	9
20	Assessment of Okra Hybrids for higher productivity	ICAR-IIHR, Bengaluru	Okra	3	-	4	10
21	ICM in Vegetable Crop Cafeteria	ICAR-IIHR, Bengaluru	Vegetable crops	10	-	5	10
22	Introduction of Ashwagandha crop	CSIR-CIMAP, Lucknow, UP	Ashwagandha	-	10	3	5

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Extension activities)
23	Introduction of Ajwain crop	ICAR-NRC on seeds spices, Ajmer, Rajasthan	Ajwain	-	5	2	3
24	Nutrition Garden	UAS, Bengaluru	Health and nutritional security	-	25	14	15
25	Solar dryer	Rudra solar drier	Chilli	-	3	2	5
26	Super grain bags	UAS, Raichur	Grain storage	-	40	4	6
27	Drone Sprayer	UAS, Raichur	Bt. Cotton	03	-	2	3
28	Battery Operated Onion Detopper	Farmio Pvt. Ltd.	Onion	-	10	2	6
29	Demonstration of Fodder production	ICAR-IGFRI, RRS, Dharwad & UAS, Dharwad	CB Cows	-	10	14	15

3.B2 contd..

	No. of farmers covered															
	OFT				FLD				Training				Others (Extension activities)			
	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	
Demonstration of SPV-2217 variety in Rabi Sorghum crop	0	0	0	0	16	9	0	0	38	12	12	8	110	28	10	2
ICM Maize	0	0	0	0	13	1	6	0	50	6	4	0	60	8	7	12
Demonstration of self propelled Maize harvester	0	0	0	0	3	0	0	0	60	20	8	2	65	21	6	4
Maize + Redgram intercropping system	0	0	0	0	6	0	0	0	24	3	1	0	53	2	6	0
Demonstration of nutri cereal crop foxtail millet with high yielding variety DHFt-109-3	0	0	0	0	25	0	0	0	35	14	5	6	80	20	8	9
Introduction of bio-fortified and drought resistant pearl millet VPMV-9	0	0	0	0	3	0	0	0	15	10	3	2	40	20	6	7

	No. of farmers covered																
	OFT				FLD				Training				Others (Extension activities)				
	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	
Assessment of high yielding varieties of Greengram • DGGV-2 • DGGV-7	3	0	0	0	0	0	0	0	0	14	11	4	3	45	23	5	6
Demonstration of DGGV-2 variety in Greengram crop (ICM practices) DGGV-2	0	0	0	0	20	5	0	0	40	20	0	0	65	35	12	10	
Assessment of Production potential of different Blackgram varieties under rainfed condition • DBGV-5 • BDU-12	0	0	4	1	0	0	0	0	35	15	5	6	43	22	10	8	
Assessment of potential productivity of DBGV-204, NBeG-47 and NBeG-49 varieties	5	0	0	0	0	0	0	0	72	30	10	8	75	46	10	12	
Assessment of conservation agriculture practice for higher productivity in Chickpea preceded with Maize crop	3	0	0	0	0	0	0	0	55	25	8	2	44	12	5	1	
Demonstration of JAKI-9218 variety of Bengalgram crop	0	0	0	0	23	0	2	0	69	30	8	4	86	43	12	9	
Demonstration of tractor operated bund former in Bengalgram crop	0	0	0	0	9	0	1	0	41	19	4	3	42	22	5	4	

	No. of farmers covered															
	OFT				FLD				Training				Others (Extension activities)			
	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
Demonstration of solar nipping machine in Bengalgram crop	-	10	3	8	8	0	2	0	37	13	5	2	64	28	10	7
Assessment of Spreading Groundnut varieties for higher productivity • DSG-1 • GJG-19	3	0	0	0	0	0	0	0	37	12	3	2	85	26	12	8
Assessment of ISF-764 and A-2020 Safflower varieties for higher productivity	6	0	0	0	0	0	0	0	45	10	4	1	20	10	6	2
Demonstration of ICM practices in high yielding ISF-764 variety of Safflower	-	25	2	5	23	0	2	0	34	12	8	4	57	33	6	3
ICM in Red onion variety Bheema Super	0	0	0	0	18	3	2	2	117	11	32	4	87	45	11	10
ICM in ByadagiChilli	0	0	0	0	12	2	0	0	112	14	37	3	54	32	4	5
Assessment of Okra Hybrids for higher productivity	2	0	1	0	0	0	0	0	20	16	5	2	34	17	22	12
ICM in Vegetable Crop Cafeteria	0	0	0	0	6	1	3	0	90	10	32	18	60	20	23	17
Introduction of Ashwagandha crop	0	0	0	0	8	0	2	0	45	20	9	4	54	24	8	4
Introduction of Ajwain crop	0	0	0	0	4	0	1	0	37	13	6	4	38	20	5	4
Nutrition Garden	0	0	0	0	0	23	0	2	42	383	10	49	45	204	5	20
Solar Dryer	0	0	0	0	3	0	0	0	35	20	3	2	68	32	4	6
Supre grain bags	0	0	0	0	2	10	4	4	12	34	2	4	0	35	0	6

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Storage Technique										
Mushroom cultivation										
Total		4	4		1					9

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

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										
Mushroom cultivation										
Total										

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

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

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

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

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

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Integrated Nutrient Management					
Varietal Evaluation	Bengalgram	Assessment of potential productivity of DBGV-204, NBeG-47 and NBeG-49 varieties	5	5	2 ha / trial (Total : 10 ha)
	Safflower	Assessment of ISF-764 and A-2020 varieties for higher productivity	5	5	0.4 ha/trial (2.0 ha)
	Okra	Assessment of Okra Hynbrids for higher productivity	3	3	0.6 ha / trial (Total: 1.8 ha)
	Greengram	Assessment of high yielding varieties of Greengram	3	3	0.4 ha/trial (1.2 ha)
	Blackgram	Assessment of production potential of different Blackgram varieties	5	5	0.4 ha/trial (2.0 ha)
	Spreading Groundnut	Assessment of Spreading Groundnut varieties for higher productivity	3	3	0.4 ha/trial (1.2 ha)
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology	Bengalgram	Assessment of conservation agriculture practice for higher productivity	3	3	1.2 (0.4 ha/ trial)
Farm Machineries	Bt.Cotton	Assessment of different spraying equipments in Bt. Cotton	3	3	1.2 (0.4 ha/trial)
	Summer Groundnut	Assessment of mechanical harvesting of Summer Groundnut for higher productivity	3	3	1.2 (0.4 ha/trial)
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			33	33	

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

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

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

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

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

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

4.B.5. Technologies 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				

Sl.	Thematic areas	Name of the enterprise	Name of technology(s)	No. of trials	No. of locations
6	Small-scale income generation				
7	Storage techniques				
8	Household food security				
9	Organic farming				
10	Agroforestry management				
11	Mechanization	Drone Sprayer	Assessment of different spraying equipments in Bt. Cotton	3	1
12	Resource conservation technology				
13	Value Addition				
14	Others				

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

	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(Home science)				

4.C1.Results of Technologies Assessed

(I) Results of On Farm Trial

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 (No. of pods per plant)	Gross Return Rs./ha	Net Return Rs./ ha	BC Ratio
1	2	3	4	5	6	7	8	9	10	11	12	13
Greengram	Rainfed	Low productivity due to cultivation of local variety	Assessment of high yielding varieties of Greengram	3	T.O.1 (Farmer practice) Shining Moong	-	7.78	Qtl/ha	23.29	51315	28065	2.21
					T.O.2 DGGV-2	UAS, Dharwad	11.93	Qtl/ha	31.89	78705	54955	3.31
					T.O.3 DGGV-7	UAS, Dharwad	7.98	Qtl/ha	24.22	52635	28885	2.22

4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of high yielding varieties of Greengram	DGGV-2 variety grows taller than DGGV-7 and this is suitable for Mechanical harvesting	-

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

1.Title of Technology Assessed: Assessment of high yielding varieties of Greengram

2. Performance of the Technology on specific indicators

Varieties	Duration (Days)	Plant height (cm)	Pod length (cm)	100 seed weight (g)	Grain yield (Qtl/ha)	% Increase in yield	Net returns (Rs/ha)	B:C Ratio
Local: Shining Moong	94	33.2	8.72	4.141	7.78	-	28065	2.21
T1: DGGV-2	90	44.2	11.6	6.543	11.93	53.34	54955	3.31
T2: DGGV-7	94	33.8	8.8	4.521	7.98	2.50	28885	2.22

3. **Specific Feedback from farmers:** DGGV-2 variety grows taller than DGGV-7 and has got more number of pods.

4. **Specific Feedback from Extension personnel and other stakeholders:** Nil

5. **Feedback to Research System based on results and feedback received:** DGGV-7 is not suitable for mechanical harvesting

6. **Feedback on usefulness and constraints of technology :** Since most of the Greengram under cultivation undergoes mechanical harvesting, this variety (DGGV-2) suits for the district.

(II) Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield (Qt/Ha)	Unit of yield	Observations other than yield (Plant height(cm))	Gross Return Rs./ha	Net Return Rs. / ha	BC Ratio (Gross income/ Gross Cost)
1	2	3	4	5	6	7	8	9	10	11	12	13
Bengalgram	Protective irrigation	Productivity of JAKI- 9218 variety is low under irrigated condition	Assessment of potential productivity of DBGV- 204, NBeG- 49 and Phule Vikram varieties	5	T.O.1 (Farmers' practice) Cultivation of JG-11 variety	-	17.80	Qtl/ha	30.12	85440	50940	2.48
					T.O.2 Cultivation of JAKI-9218 variety	UAS, Dharwad	19.78	Qtl/ha	30.96	94920	59420	2.67
					T.O.3 Assessment of DBGV-204 variety	UAS, Dharwad	20.50	Qtl/ha	31.98	97680	62180	2.75
					T.O.4 Assessment of NBeG-49 variety	PJ TSAU, Hyderabad	22.05	Qtl/ha	34.62	105840	70340	2.98
					T.O.5 Assessment of Phule Vikram variety	MPKV, Rahuri	22.23	Qtl/ha	39.34	106680	71180	3.01

4. C2.Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of potential productivity of DBGV-204, NBeG-49 and Phule Vikram varieties	NBeG-49 and Phule Vikram varieties are high yielding and suitable for mechanical harvesting. No constraints in adoption of Technology.	<ul style="list-style-type: none"> NBeG-49 variety seeds need to be made available in large quantity in command area villages.

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

1. **Title of Technology Assessed** :Assessment of potential productivity of DBGV-204, NBeG-49 and Phule Vikram varieties

2. **Performance of the Technology on specific indicators**

Technology Assessed	Performance indicators						
	Grain Yield (Qt/ha)	Net Returns (Rs./ha)	B.C. Ratio	Plant height (cm)	No. of pods/plant	Test weight (g)	Duration (Days)
Farmer's practice: Cultivation of JG-11 variety	17.80	50940	2.48	30.12	37.02	23.01	110
Recommended practice: Cultivation of JAKI-9218 variety	19.78	59420	2.67	30.96	38.12	24.23	110
Alternate practice-1: Assessment of DBGV-204 variety	20.5	62180	2.75	31.98	41.87	24.45	112
Alternate practice-2: Assessment of NBeG-49 variety	22.05	70340	2.98	34.62	46.24	25.08	115
Alternate practice-3: Assessment of Phule Vikram variety	22.23	71180	3.01	39.34	46.67	25.12	112

3.**Specific Feedback from farmers:**NBeG-49 and Phule Vikram varieties are high yielding and suitable for mechanical harvesting. No constraints in adoption of Technology.

4.**Specific Feedback from Extension personnel and other stakeholders:**Check suitability of NBeG-49 under rainfed condition also.

5. **Feedback to Research System based on results and feedback received:** NIL

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

(III) Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield (Qt/Ha)	Unit of yield	Observations other than yield (Soil moisture content*(%d.b.))	Gross Return Rs./ha	Net Return Rs. / ha	BC Ratio (Gross income/ Gross Cost)
1	2	3	4	5	6	7	8	9	10	11	12	13
Bengalgram	Protective irrigation	Non profitability due to moisture stress, deterioration of soil physical properties due to repeated use of machineries especially Rotavators& reduced water application efficiency	Assessment of conservation agriculture practice for higher productivity in Chickpea preceeded with Maize crop	3	T.O.1 (Farmers' practice) Sowing of Chickpea following conventional tillage after maize harvest		19.50	Qtl/ha	14.45	87750	58150	2.96
					T.O.2 Direct sowing of Chickpea in standing stubbles after combined harvester operation	PAU, Ludhiana	20.85	Qtl/ha	21.17	94050	65750	3.32
					T.O.3 Direct sowing of chickpea in cut and spread maize crop residue after harvesting with Self Propelled Single Row Maize Harvester	PAU, Ludhiana	21.20	Qtl/ha	22.56	95400	68000	3.48

4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of conservation agriculture practice for higher productivity in Chickpea preceeded with Maize crop	Conservation Agriculture practices in Chickpea enhanced the yield and resulted in early germination of seeds. Soil water holding capacity was also improved.	Lack of knowledge to farmers regarding the technology

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

1. **Title of Technology Assessed** :Assessment of conservation agriculture practice for higher productivity in Chickpea preceded with Maize crop

2. Performance of the Technology on specific indicators

Technology Assessed	Performance indicators					
	Grain Yield (Qtl/ha)	Net Returns (Rs./ha)	B.C. Ratio	Soil Moisture Content* (% d.b.)	Soil Bulk Density (g/cm ³)	Saving in cost of cultivation (%)
Farmer's practice: Sowing of Chickpea following conventional tillage after maize harvest	19.50	58150	2.96	14.45	1.44	-
Recommended practice: Direct sowing of Chickpea in standing stubbles after combined harvester operation	20.85	65750	3.32	21.17	1.32	4.39
Alternate practice-1: Direct sowing of chickpea in cut and spread maize crop residue after harvesting with Self Propelled Single Row Maize Harvester	21.20	68000	3.48	22.56	1.34	7.43

3.**Specific Feedback from farmers:**Conservation Agriculture practices in Chickpea enhanced the yield and resulted in early germination. Soil water holding capacity was also improved.

4.**Specific Feedback from Extension personnel and other stakeholders:**Conservation agriculture practices are well suited for irrigated condition and farmers may adopt the technology.

5. **Feedback to Research System based on results and feedback received:**Nil

6. Feedback on usefulness and constraints of technology :

- The technology has to be adopted over a long period to obtain good results.
- Incidence of weeds and mites are the major constraints.

(IV) Results of On Farm Trial

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 (No. of pods per plant)	Gross Return Rs./ ha	Net Return Rs./ ha	BC Ratio
1	2	3	4	5	6	7	8	9	10	11	12	13
Blackgram	Rainfed	Low productivity due to cultivation of local variety	Assessment of Production potential of different Blackgram varieties under rainfed condition	5	T.O.1 (Farmer practice) Unidentified variety	-	5.35	Qtl/ha	24.12	33170	9670	1.41
					T.O.2 DBGV-5	UAS, Dharwad	7.80	Qtl/ha	28.12	50700	26700	2.11
					T.O.3 BDU-12	UAS, Raichur	7.53	Qtl/ha	27.14	48913	24913	2.04

4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of Production potential of different Blackgram varieties under rainfed condition	Both varieties performed well under rainfed condition (T.O.2 & T.O.3)	Non availability of seeds on larger scale

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

1.Title of Technology Assessed: Assessment of Production potential of different Blackgram varieties under rainfed condition

2. Performance of the Technology on specific indicators

Varieties	Duration (Days)	Plant height (cm)	Pod length (cm)	100 seed weight (g)	Grain yield (Qtl/ha)	% Increase in yield	Net returns (Rs/ha)	B:C Ratio
Local: Unidentified	85	33.20	8.60	5.167	5.35	-	9670	1.41
T1: DBGV-5	85	39.20	10.8	6.942	7.80	45.79	26700	2.11
T2: BDU-12	85	38.60	9.9	6.156	7.53	40.74	24913	2.04

3. Specific Feedback from farmers: Both varieties have got more number of pods and thus result in higher yield

4. Specific Feedback from Extension personnel and other stakeholders: Nil

5. Feedback to Research System based on results and feedback received: Need to develop taller varieties which can be suitable for mechanical harvesting

6. Feedback on usefulness and constraints of technology : Nil

(V) Results of On Farm Trial

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 (No. of pods per plant)	Gross Return Rs./ha	Net Return Rs. / ha	BC Ratio
1	2	3	4	5	6	7	8	9	10	11	12	13
Spreading Groundnut	Rainfed	Productivity of existing local varieties is very less under rainfed condition	Assessment of Spreading Groundnut varieties for higher productivity	3	T.O.1 (Farmer practice) Maradur local	-	2.93	Qtl/ha	20.05	18135	-13115	0.58
					T.O.2 DSG-1	UAS, Dharwad	3.03	Qtl/ha	20.13	19663	-8837.5	0.69
					T.O.3 GJG-19	JAU, Gujarat	3.58	Qtl/ha	23.40	23238	-5262.5	0.82

*Since crop received high rainfall during early stages, crop performance was very poor. Hence, there is lower yield resulting in negative net returns

4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of Spreading Groundnut varieties for higher productivity	-	-

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

1. **Title of Technology Assessed:** Assessment of Spreading Groundnut varieties for higher productivity

2. **Performance of the Technology on specific indicators**

Varieties	Duration (Days)	Plant height (cm)	100 Kernal weight (g)	Pod yield (Qtl/ha)	% Increase in yield	Net returns (Rs/ha)	B:C Ratio
Local: Maradur local	135	32.12	37.21	2.93	-	-13115	0.58
T1: DSG-1	124	31.20	37.60	3.03	3.41	-8837.5	0.69
T2: GJG-19	124	34.29	39.80	3.58	22.18	-5262.5	0.82

*Since crop received high rainfall during early stages, crop performance was very poor. Hence, there is lower yield resulting in negative net returns

3. **Specific Feedback from farmers:** Nil

4. **Specific Feedback from Extension personnel and other stakeholders:** Nil

5. **Feedback to Research System based on results and feedback received:** Nil

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

(VI) Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield (Qt/Ha)	Unit of yield	Observations other than yield (No. of capsules/Plant)	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
Safflower	Rainfed	Low productivity due to cultivation of local variety	Assessment of ISF-764 and A-2020 varieties for higher productivity	6	T.O.1 (Farmers' practice) / Recommended practice Cultivation of local A-1 variety	UAS, Dharwad	12.25	Qtl. /ha.	37	66600	35150	2.13
					T.O.2 Assessment of ISF-764 variety	IIOR, Hyderabad	16.25	Qtl. /ha	54	87750	56750	2.83
					T.O.3 Assessment of A-2020 variety	UAS, Dharwad	13.75	Qtl. /ha	42	74250	43250	2.39

4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of ISF-764 and A-2020 varieties for higher productivity	ISF-764 has following advantages <ul style="list-style-type: none"> • More number of capsules per plant • Higher grain weight 	-

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

1. **Title of Technology Assessed** : Assessment of ISF-764 and A-2020 varieties for higher productivity

2. **Performance of the Technology on specific indicators**

Technology Assessed	Performance indicators					
	Grain Yield (Qtl/ha)	Net Returns (Rs./ha)	B.C. Ratio	% increase in yield	No. of capsules / plant	100 seed weight (gm)
Farmer's practice: Cultivation of A-1 variety	12.25	35150	2.13	-	37	4.36
Alternate practice-1: Assessment of ISF-764 variety	16.25	56750	2.83	32.65	54	5.29
Alternate practice-2: Assessment of A-2020 variety	13.75	43250	2.39	12.24	42	4.56

3. **Specific Feedback from farmers:** Number of branches and capsules are more in ISF-764 variety and matures one week earlier than A-2020

4. **Specific Feedback from Extension personnel and other stakeholders:** The variety needs to be promoted in large area

5. **Feedback to Research System based on results and feedback received:** Need to develop leaf spot resistant variety

6. **Feedback on usefulness and constraints of technology:** More number of branches and capsules per plant in ISF-764 variety resulted in higher grain yield

(VII) Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield (Qt/Ha)	Unit of yield	Observations other than yield (Fresh fruit weight in gms)	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
Okra	Irrigated	Low yield, keeping quality and income due to cultivation of local variety	Assessment of Okra Hybrids for higher productivity	3	T.O.1 (Farmer practice) Cultivation of Private Hybrids	-	126.14	Qtl/ha	9.95	214444	112720	2.11
					T.O.2 Assessment of CoBH-4 Okra Hybrids	TNAU, Tamilnadu	143.21	Qtl/ha	10.86	243457	139104	2.33
					T.O.3 Assessment of Arka Nikita Okra Hybrids	ICAR-IIHR, Bengaluru	149.14	Qtl/ha	11.22	283360	177418	2.67

4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of Arka Nikita	Fruits of Arka Nikita are very tender, attractive and preferred in Gadag city market	-

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

1. **Title of Technology Assessed** :Assessment of Okra Hybrids for higher productivity

2. **Performance of the Technology on specific indicators** :

Technology Assessed	Performance indicators					
	Fresh fruit weight (gms)	Average Plant height (cm)	Average fruit length (cm)	Net Returns (Rs./ha)	B.C. Ratio	Market price (Rs./Qtl)
Farmers' practice: Cultivation of Private Hybrids	9.95	95.82	11.30	112720	2.11	1700
Recommended practice: Assessment of CoBH-4 Okra Hybrid	10.86	106.5	13.90	139104	2.33	1700
Alternate practice-1: Assessment of Arka Nikita Okra Hybrid	11.22	118.25	14.70	177418	2.67	1900

3. **Specific Feedback from farmers:** Arka Nikita is suitable for Rabi cultivation, which fetches better price. The fruits are very tender, attractive and preferred in Gadag market. Therefore farmers accepted Arka Nikita Okra Hybrid.
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:**Arka Nikita is suitable for Rabi cultivation, which fetches better price. The fruits are very tender, attractive and preferred in Gadag market. Therefore farmers accepted Arka Nikita Okra Hybrid.

(VIII) Results of On Farm Trial

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./ha	Net Return Rs. / ha	BC Ratio
1	2	3	4	5	6	7	8	9	10	11	12	13
Bt. Cotton	Rainfed	a. Incidence of pests, especially white flies and thrips b. Incidence of disease especially Angular leaf spot c. Drudgery of operation in existing spraying methods	Assessment of different spraying equipment for effective pest management in Bt. Cotton	3	T.O.1 (Farmer practice): Spraying by Battery operated knapsack sprayer	-	13.20	Qtl./ha	i. Application Rate (l/ha) = 259 ii. Labour requirement (man-h/ha) = 12 iii. Area coverage (ha/h) = 0.09 iv. Percentage reduction in pest (%) = 63.85 v. Droplet size (microns) = 1027.39 vi. Droplet Density(No's/cm ²) = 17.34	132000	75125	1.75
					T.O.2: Spraying by Tractor Operated Boom Sprayer	UAS, Raichur	13.80	Qtl./ha	i. Application Rate (l/ha) = 363 ii. Labour requirement (man-h/ha) = 1.5 iii. Area coverage (ha/h) = 1.40 iv. Percentage reduction in pest (%) = 83.13 v. Droplet size (microns) = 1300.74 vi. Droplet Density(No's/cm ²) = 14.88	138000	83750	2.54
					T.O.3: Spraying by Drone Sprayer	UAS, Raichur	13.75	Qtl./ha	i. Application Rate (l/ha) = 27 ii. Labour requirement	137500	84750	2.60

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./ha	Net Return Rs. / ha	BC Ratio
									(man-h/ha) = 0.5 iii. Area coverage (ha/h) = 2.48 iv. Percentage reduction in pest (%) = 74.69 v. Droplet size (microns) = 980.17 vi. Droplet Density (No's/cm ²) = 34.14			

4. C2. Feedback on technologies assessed

Name of technology assessed	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Assessment of different spraying equipment for effective pest management in Bt. Cotton	<ul style="list-style-type: none"> Technologies (Tractor Operated Boom Sprayer and Drone Sprayer) performed well and shown good control of pests in Bt. Cotton. Use of Drone Sprayer resulted in saving of pesticide chemical by 15-20%. There was significant saving in labour and time of operation when compared to Farmers' practice 	High Initial cost of machines is the major constraint in adoption of the technologies.

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

1. Title of Technology Assessed : Assessment of different spraying equipment for effective pest management in Bt. Cotton

2. Performance of the Technology on specific indicators

Technologies	Yield (Qtl/ha)	Application Rate (l/ha)	Labour requirement (man-h/ha)	Area coverage (ha/h)	Percentage reduction in pest (%)	Droplet size (microns)	Droplet Density (No's/cm ²)	Net Returns (Rs./ha)	B:C Ratio
Farmers Practice: Spraying by Battery Operated Knapsack Sprayer	13.20	259	12	0.09	63.85	1027.39	17.34	75125	1.75
T.O-1: Spraying by Tractor Operated Boom Sprayer	13.80	363	1.40	1.40	83.13	1300.74	14.88	83750	2.54
T.O-2: Spraying by Drone Sprayer	13.75	27	0.50	2.48	74.69	980.17	34.14	84750	2.64

3. Specific Feedback from farmers : Drone sprayer reduced the cost of labour and saves time of operation but has lesser efficacy in controlling pests compared to Tractor operated Boom Sprayer.
4. Specific Feedback from Extension personnel and other stakeholders : Nil.
5. Feedback to Research System based on results and feedback received : Recommendation of pesticide doses need to be standardized for better results with Drone Sprayer
6. Feedback on usefulness and constraints of technology : High initial cost and lack of technical skills are the major constraints

4.D1. Results of Technologies Refined : NIL

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Refined	Source of technology	Yield	Unit of yield	Observations other than yield	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
					T.O.1 (Farmer 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	Rainfed	Rabi	Safflower	ISF-764	-	Varietal demonstration	Demonstration of high yielding ISF-764 variety of Safflower	10	10	2	23	23	2
	Pulses													
1		Rainfed	Kharif	Greengram	DGGV-2	-	ICM practices	Demonstration of DGGV-2 variety in Greengram crop	10	10	5	20	21	4
2		Rainfed	Rabi	Bengalgram	JAKI-9218	-	ICM practices	Demonstration of ICM practices in JAKI-9218 variety of Bengalgram crop	10	10	2	23	20	5
3		Rainfd	Rabi	Bengalgram	-	-	Farm Machineries	Demonstration of tractor operated compartment bund former in Bengalgram crop	4	4	1	9	9	1
4		Rainfed	Rabi	Bengalgram	-	-	Farm Machineries	Demonstration of solar nipping machine in Bengalgram crop	-	-	2	8	8	2
	Cereals													
5		Rainfed	Rabi	Rabi Sorghum	SPV- 2217	-	Varietal demonstration	Demonstration of SPV-2217	16	16	3	37	38	2
6		Rainfed	Kharif	Maize	-	CP-848	ICM	Soil test based	8	8	6	14	11	9

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
								nutrient application & soil application of FeSo4 & ZnSo4 @ 25 Kg/ha						
7		Rainfed	Kharif	Maize	-	CP-848	Farm machinaries	Demonstration of self propelled Maize harvester	3	3	0	3	0	3
8		Rainfed	Kharif	Redgram	TS-3R	-	Intercropping system	Maize + Redgram intercropping system with ICM practices	2.4	2.4	1	5	4	2
	Millets													
9		Rainfed	Kharif	Foxtail millet	DHFt-109-3	-	Varietal demonstration	Demonstration of high yielding Nutri cereal Foxtail millet crop variety DHFt-109-3	10	10	0	25	25	0
10		Rainfed	Kharif	Pearl millet	VPMV-9	-	Varietal demonstration	Demonstration of biofortified pearl millet variety vpmv-9	3	3	0	3	3	0
11	Vegetables	Irrigated	Rabi 2022	Vegetable crops	Ridgegourd- Arka Prasana Dolichos Bean – Arka Amogh Spinach – Arka Anupam	-	Varietal demonstration	Introduction of new varieties in vegetable crops of ICAR-IIHR, Bengaluru	4.0	4.0	3	7	6	4

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
					Radish-Arka Nishant									
12		Rainfed	Kharif 2022	Onion	Bheema Super	-	Varietal demonstration and ICM	Demonstration of ICM in Red onion variety Bheema Super	10	10	-	25	8	17
13		Rainfed	Kharif	Onion	Bhima Super		Farm Machineries	Battery Operated Onion Detopper	-	-	2	8	9	1
	Flowers													
	Ornamental Fruit													
14	Spices and condiments	Rainfed	Kharif 2022	Red chilli	Byadagi Dabbi	-	ICM in ByadgiChilli	ICM in ByadgiChilli	5.6	5.6	-	14	2	12
15		Rainfed	Rabi 2022	Ajwain	Ajmer Ajwain-1	-	Crop introduction	Introduction of Ajwain crop	2	2	1	4	5	0
	Commercial													
16	Medicinal and aromatic	Rainfed	Rabi 2022	Ashwagandha	Poshita	-	Crop introduction	Introduction of Ashwagandha crop	4	4	2	8	8	2
17	Fodder	Irrigated	Kharif	Perennial fodder crops	Hybrid Napier-DHN 6, Multicut Jowar-VH-988, Guinea grass, Rhodes grass, Signal grass: Lucerne, Stylosanthes Hamata 555	-	Nutrition Management in dairy animals	Demonstration on Fodder Production & feeding to milch animals for enhanced milk productivity	1	1	0	10	10	-

Sl. No.	Category	Farming Situation	Season	Crop	Variety/ breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ST	Others	Small/ Marginal	Others
	Sericulture													
	Apiculture													
	Implements													
	Others (specify)													
18	Nutri Garden	Irrigated & Rainfed	Kharif & Rabi	Vegetables	-	-	Nutrition	Demonstration of Nutri Garden	-	-	8	17	22	3
19	PHT			Red Chilli			PHT	Demonstration of solar dryer for drying of Red chillies	-	-	0	3	3	0
20	Grain storage			Greengram&Bengalgram	-	-	Grain storage	Demonstration of Super grain bags	-	-	8	12	10	10

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	
1	Oilseeds	Rainfed	Rabi 2022	Safflower	ISF-764	-	ICM practices	Demonstration of ISF-765 variety in Safflower crop	Rabi 2022	L	M	M	Rabi Sorghum
2		Rainfed	Summer 2023	Summer Groundnut	Kadari Lepakshi	-	ICM practices	Demonstration of Kadari Lepakshi variety in Safflower crop	Summer 2023	L	L	L	Greengram
3	Pulses	Rainfed	Kharif-2022	Greengram	DGGV-2	-	ICM practices	Demonstration of DGGV-2 variety in Greengram crop	Kharif-2022	L	L	M	Bengalgram
4		Rainfed	Rabi 2022	Bengalgram	JAKI-9218	-	ICM practices	Demonstration of JAKI-9218 variety in Bengalgram crop	Rabi 2022	L	L	M	Greengram
5		Rainfed	Rabi 2022	Bengalgram	-	-	Farm machinaries	Demonstration of tractor operated compartment bund former in Bengalgram crop	Rabi 2022	L	L	M	Greengram
	Cereals												
6		Rainfed	Kharif	Maize	-	CP-848	Integrated	Integrated Crop Management	Kharif 2022	L	L	M	Chickpea

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	
			2022				Crop Management						
7		Rainfed	Kharif 2022	Maize	-	CP-848	Farm machinaries	Demonstration of self propelled Maize harvester	Kharif 2022	L	L	M	Chickpea
8		Rainfed	Kharif 2022	Redgram	TS-3R	-	Intercropping system	Maize+Redgram intercropping system with ICM practices	Kharif 2022	L	L	M	Groundnut
9		Rainfed	Rabi 2022	Rabi Sorghum	SPV-2217	-	ICM	Demonstration of SPV-2217 variety	Rabi 2022	L	L	H	Greengram & fallow land
	Millets												
10		Rainfed	Kharif 2022	Foxtail Millet	DHft-190-3		Varietal demonstration	Demonstration of high yielding DHft-190-3 variety	Kharif 2022	L	L	M	Ragi Sorghum
11		Rainfed	Kharif 2022	Pearl Millet	VPMV-9		Varietal demonstration	Demonstration of high yielding VPMV-9 variety	Kharif 2022	L	L	M	Rabi Sorghum
12	Vegetables	Irrigated	Rabi 2022	Vegetable crops	Ridgegourd - Arka Prasana Dolichos Bean – Arka Amogh Spincah– Arka Anupam Radish – Arka Nishant	-	Varietal demonstration	Introduction of new varieties in vegetable crops of ICAR-IIHR, Bengaluru	Rabi 2022	L	L	M	Greengram
13		Rainfed	Kharif 2022	Red Onion	Bheema Super	-	ICM practices	Demonstration of Bheema Super variety in Red Onion	Kharif 2022	L	L	M	Chickpea
	Flowers												
	Ornamental												
	Fruit												
14	Spices and condiments	Rainfed	Kharif 2022	Red chilli	Byadagi Dabbi	-	ICM in Byadgi	ICM in ByadgiChilli	Kharif 2022	L	L	M	Rabi Sorghum

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 check (Rs./ha)		
							Demo			Check		Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
							H	L	A								
Oilseeds																	
Safflower	Demonstration of ISF-764 variety in Safflower	ISF-764	-	Rainfed	25	10	16.5	13.6	15.35	12.05	27.38	82890	51090	2.61	65070	34670	2.14
Summer Groundnut	Demonstration of Kadari Lepakshi variety in Summer Groundnut	Kadari Lepakshi	-	Rainfed	25	10	Results are awaited										
Pulses																	
Greengram	Demonstration of DGGV-2 variety in Greengram crop	DGGV-2	-	Rainfed	25	10	12.62	7.91	10.30	8.35	23.4	67975	44225	2.86	54246	30996	2.33
Bengalgram	Demonstration on JAKI-9218 variety in Bengalgram crop	JAKI-9218	-	Rainfed	25	10	18.3	15.4	17.8	14.0	27.14	83660	53200	2.75	65800	37480	2.38
Cereals																	
Rabi Sorghum	Demonstration of SPV-2217 variety	SPV-2217	-	Rainfed	40	16	22.8	17.9	21.02	17.50	20.11	54652	27152	1.99	45500	18000	1.65

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 check (Rs./ha)		
							Demo			Check	Gross Return		Net Return	** BCR	Gross Return	Net Return	** BCR	
							H	L	A									
Maize	Integrated Crop Management		CP-848	Kharif 2022	20	8	59.00	51.25	56.16	51.51	9.0	112320	65224	2.38	103020	56904	2.23	
Maize+ Redgram	Maize+ Redgram intercropping system with ICM practices	TS-3R in Redgram	CP-848 in Maize	Rainfed	6	2.4	CEY of Maize: 66.8	CEY of Maize: 62.1	CEY of Maize: 65.01	54.83	18.56	130033	77887	2.48	109666	62166	2.30	
Millets																		
Foxtail Millet	Demonstration of DHFt-109-3 variety	DHFt-109-3	-	Rainfed	25	10	Crop vitiated due to excess rainfall											
Pearl Millet	Demonstration of VPM-9 variety	VPM-9	-	Rainfed	3	1.2	Crop vitiated due to excess rainfall											
Vegetables:	Introduction of new varieties of ICAR-IIHR Bengaluru under Vegetable Crop Cafeteria	Ridgegourd:	-	Irrigated	10	4	27.62	20.72	23.92	18.92	26.42	265635	196000	3.81	212048	147338	3.28	
		Arka Prasanna																
		Dolichos bean:																
		Arka Amogh																
		Radish :																
Arka Nishant	23.75	19.37	21.50	17.90	20.11													
Spinach:	69.00	53.12	61.12	47.50	28.67													
Arka Anupam	33.75	24.57	28.85	23.35	23.55													

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 check (Rs./ha)		
							Demo			Check		Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
							H	L	A								
Red Onion	Demonstration of ICM in Red onion variety Bheema Super	Bheema Super	-	Rainfed	25	10	46.25	30.00	37.78	29.79	26.80	45330	22154	1.97	29790	8205	1.39
Flowers																	
Ornamental																	
Fruit																	
Spices and condiments																	
Ajwain	Introduction of Ajwain crop	Ajmer Ajwain-1	-	Rainfed	5	2	7.25	6.0	6.50	*		58500	28138	1.93			
Chilli	Integrated Crop Management in ByadagiChilli	Byadagi Dabbi	-	Rainfed	14	5.6	9.50	5.20	6.10	4.96	22.84	213438	150761	3.02	173750	116155	3.40
Commercial																	
Fibre crops like cotton																	
Medicinal and aromatic																	
Ashwagandha	Introduction of Ashwagandha crop	Poshita	-	Rainfed	10	4	4.00	3.00	3.58	*		71500	51934	3.65			

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 check (Rs./ha)			
							Demo		Check		Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR	
							H	L	A								
Fodder																	
Plantation																	
Fibre																	
Others (pl.specify)																	

** BCR= GROSS RETURN/GROSS COST

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

* Ajwain and Ashwagandha crop demonstrations do not have local check as these crops are new introduction during rabi season. Hence, Ajwain is compared with Bengalgram and Ashwagandha is compared with Rabi Sorghum crop as local checks to show that Ajwain and Ashwagandha are more profitable compared to traditional rabi season crops. Bengalgram and Rabi Sorghum respectively.

1) Data on additional parameters other than yield : Demonstration of DGGV-2 variety in Greengram crop

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Plant height	43.42	36.20
No. of pods per plant	30.12	23.81

2) Data on additional parameters other than yield : Demonstration of SPV-2217 variety in Rabi Sorghum

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration plot	Local check plot
Lodging of plants (Percentage) at harvest	2.12	9.16
Plant height (cm)	217	196

3) Data on additional parameters other than yield : FLD on ICM in Onion

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Bulb weight (gms)	102.78	91.83

4) Data on additional parameters other than yield : Demonstration of Battery Operated Onion Detopper (FLD on ICM in Onion)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Rate of detopping (Kg/hour)	180	130
Labour requirement (man-h/tonne)	11	16
Saving in Time (%)	38.50	-
Saving in Labour (%)	31.25	-

5) Data on additional parameters other than yield : FLD on Introduction of new varieties of vegetable crops of ICAR -IIHR, Bengaluru

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Ridgegourd		
Average number of fruits / vine (Nos.)	11.74	9.64
Average fruit weight (gm/fruit)	112.10	99.89
Dolichos bean		
Number of days for 1 st harvest	48.50	45.25
Number of pods / plant	30.10	23.50
Radish		
Number of days for harvest	46	43
Root length (Cms)	15.20	12.70
Fresh root weight (gms)	160.25	125.56
Spinach		
Leaf length (Cms)	25	18
Leaf width (Cms)	8.25	6.50

6) Data on additional parameters other than yield : Demonstration on introduction of Ajwain crop

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Test weight (1000 seeds weight) of the seeds (gms)	0.93	-

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 DGGV-2 variety in Greengram crop	The variety demonstrated is taller in stature and resistant to pod shattering which makes it suitable for mechanical harvesting	-
Demonstration of SPV-2217 variety in Rabi Sorghum	Variety is comparatively lodging resistant besides having higher productivity	-
Maize + Redgram intercropping system with ICM technology	The Maize + Redgram intercropping system is suitable for dryland area to enhance the income of the farmers	-
Demonstration of vegetable crop cafeteria	<p>Ridgegourd - Arka Prasan variety</p> <ul style="list-style-type: none"> • An early variety, • Gives more yield • Low incidence of powdery mildew compared to local variety • Fruits are tender with good taste and cooking quality <p>Dolichos bean – Arka Amogh</p> <ul style="list-style-type: none"> • More yield, good marketability and consumer acceptability <p>Radish – Arka Nishant</p> <ul style="list-style-type: none"> • More yield • Mild in pungency • Attractive roots and foliage <p>Spinach- Arka Anupam</p> <p>More yield, thick and big leaves make large bunch & attractive green leaf colour and Good Shelf life</p>	-
Demonstration of ICM in Red onion variety Bheema Super	<p>Bheema Super</p> <ul style="list-style-type: none"> • Bulb weight and quality is superior • Attractive pink bulbs fetches better market price (Rs. 200/-more per Qtl) compared to local variety • Low incidence of thrips and purple blotch compared to local variety • Application of Gypsum helped in less bulb rotting compared to local varieties • Application of Arka Vegetable Special helped to get large and dark pink coloured bulbs. 	-

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

** 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.)

FLD on Fodder production

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

Data on additional parameters : Demonstration on Fodder production

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demonstration	Check
Feeding of Fodder	<ul style="list-style-type: none"> Gradual improvement in the general condition of the animal health Increase in intake of dry fodder Cows are coming to heat within the period 	-
Nutrition	30 Kg green fodder, 10 Kg dry fodder and 2 Kg concentrated feed / Cow / day	No systematic nutrition

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
FLD on Fodder production	After production and feeding of perennial green fodder, and grasses to milking cow, there was <ul style="list-style-type: none"> Enhanced intake of fodder Increased Milk production Improvement in health condition and reduced cost of cattle feed 	-

5.B.5. Fisheries : NIL

Type of Breed	Name of the technology demonstrated	Breed	No. of Demo	Units/ Area (m ²)	Yield (q/ha)			% Increase	*Economics of demonstration Rs./unit) or (Rs./m2)				*Economics of check Rs./unit) or (Rs./m2)				
					Demo				Check if any	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	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

Enterprise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area {m ² }	Name of the parameter with unit	Yield (Qtl/ha)			% Increase	*Economics of demonstration (Rs./unit) or (Rs./m ²)			*Economics of check (Rs./unit) or (Rs./m ²)			
						Demo				Check if any	Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
						H	L	A								
Grain Storage	Demonstration of Super Grain Bags	-	40		<ul style="list-style-type: none"> No. of live insects per Kg (Nos./Kg) Weight loss of grains (Kgs) Percentage weight loss of grains (%) 	-	-	-	-	-	-	-	-	-	-	

Data on additional parameters other than yield : Nutri Garden

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Local
Amount spent towards purchase of vegetables/year	Rs.3600 (Rs.300/month)	19200 (Rs.1600/month)
Percentage adequacy of vegetables	45.40	-
Availability of leafy vegetables, other vegetables and roots and tubers per day/ member (gms)	227.00	-

Data on additional parameters other than yield : Post Harvest Technology (Solar dryer)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Local
	ByadagiDabbi	ByadagiDabbi
Quantity of chillies taken (Kg)	32	32
Number of days required for drying of ByadagiChilli	4.6	9.6
Quantity of dried chillies obtained after drying (Kg)	11.75	10.40
Moisture removal rate (Kg/day)	4.40	2.25
Minimum and Maximum temperature recorded	30°C to 55°C	21°C to 32°C

	(Dec-Jan)	(Dec-Jan)
Moisture content in Byadagichilli powder (%)	3.28	5.42
Aflatoxin content (mg/Kg)	Not found	Not found
Market price (Rs.)	55000	47000

Data on additional parameters other than yield : Demonstration of Super Grain Bags

Data on other parameters in relation to technology demonstrated			
	Greengram (20 Demo)		Bengalgram (20 Demo)
Parameter with unit	Demo	Local	
No. of live insects / Kg (Nos.)	0	5.65	
Initial weight of grains (Kg)	50 Kg	50 Kg	
Final weight of grains (Kg)	49.47	44.93	
Weight loss of grains / 50 Kg (Kg)	0.53	5.07	
Weight loss of grains (%)	1.06	10.14	

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
Nutrition Garden	<p>Useful characters :</p> <ul style="list-style-type: none"> • Fresh vegetables were available to families • Cost incurred for purchase of vegetables has been reduced • All family members including children came to know about the cultivation of various vegetables • Exchange of vegetables with neighbors and friends <p>Constraints :</p> <ul style="list-style-type: none"> • Water problem and heavy rainfall • Management of pest and diseases 	<p>Socio-economic constraints</p> <ul style="list-style-type: none"> • Due to small land holding, many families may show dis-interest in cultivation of vegetables in smaller quantity • Lack of resources • Fencing problem • Damage of Nutri-Garden occurs due to stray cattles and livestock <p>Administrative constraints</p> <ul style="list-style-type: none"> • Nil
Solar drier	<p>Useful characters :</p> <ul style="list-style-type: none"> • Drying is uniform and faster • Chillies are free from dust, mud and other particles • Labour requirement is less <p>Constraints :</p> <ul style="list-style-type: none"> • Not suitable for big farmers • Small quantities can be dried • Susceptable to damage during transportation to Solar drier 	<p>Socio-economic constraints</p> <ul style="list-style-type: none"> • Damage of solar drier during drying due to monkeys and cattles • Machine is costly • Durability of drier is less. Problem of damage of solar panel. <p>Administrative constraints</p> <ul style="list-style-type: none"> • No subsidy from Government for small machines • More space required for tunnel drier (Large scale) • High investment for installation
Grain storage	Useful characters :	Socio-economic constraints

Name of enterprise demonstrated	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
	<ul style="list-style-type: none"> Storage is easy No pest incidence 	<ul style="list-style-type: none"> Cost is more Repeated purchase of bags due to tearing of bags

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	Labour requirement in Mandays		% save	Savings in labour (Rs./ha)	*Economics of demonstration (Rs./ha)	*Economics of check (Rs./ha)
					Demo	Check				
Compartment bund former	55000	Tractor operated compartmental bund former	10	4	0.34	1.67	79.64	335	1250	1800
Solar nipping machine	10500	Solar nipping machine in Chickpea	10	4	1.4	5	72	2100	600	3000
Self propelled Maize harvester	110000	Self propelled single row Maize harvester	3	1.2	2.4	9	73.3	2100	600	2700

* 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 laboursaved (viz., reduction in drudgery, time etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Local
Reduction in time of operation (%)		
Compartmental bund former	82.5%	-
Solar nipping machine	54%	-
Self propelled Maize harvester	52%	-

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 Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
Okra																	
Onion																	
Potato																	
Field bean																	
Others (pl.specify)																	
Total																	
Commercial crops																	
Sugarcane																	
Coconut																	
Others (pl.specify)																	
Total																	
Fodder crops																	
Maize (Fodder)																	
Sorghum (Fodder)																	
Others (pl.specify)																	
Total																	

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Animal Disease Management										
Feed and Fodder technology										
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	10	14	215	229	7	71	78	21	286	307
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet	2	5	73	78	0	0	0	5	73	78
Minimization of nutrient loss in processing										
Processing and cooking	3	26	65	91	0	25	25	26	90	116
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	2	26	31	57	4	0	4	30	31	61
Women empowerment	4	0	95	95	6	29	35	6	124	130
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
EDP for women	1	0	40	40	0	10	10	0	50	50
Waste management	5	0	0	0	0	148	148	0	148	148
Agril. Engineering										
Farm machinery and its maintenance	9	211	28	239	58	4	62	269	32	301

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production	2	30	35	65	0	5	5	30	40	70
Organic manures production	1	35	0	35	4	0	4	39	0	39
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)										
Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
Others (pl. specify)										
Farmers' Producer Organisation										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems	1	15	0	15	7	3	10	22	3	25
Others (Pl. specify)										
TOTAL	91	1367	1151	2518	284	397	681	1612	1545	3199

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
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)										
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	14	107	229	336	8	61	69	115	290	405
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet	3	7	58	65	0	2	2	7	60	67
Minimization of nutrient loss in processing										
Processing and cooking	2	0	45	45	0	20	20	0	65	65
Gender mainstreaming through SHGs										
Storage loss minimization techniques	5	37	29	66	8	11	19	45	40	85
Value addition	2	9	27	36	2	9	11	11	36	47
Women empowerment										
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
Kitchen waste management	1	18	14	32	0	0	0	18	14	32

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
addition										
Others (pl.specify)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
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	1	8	6	14	0	0	0	8	6	14
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems	2	3	37	40	0	17	17	3	54	57
Others (Pl. specify)										
TOTAL	60	672	593	1265	162	160	305	834	753	1592

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	2	20	40	60	0	0	0	20	40	60
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	6	71	38	109	18	15	33	89	53	142
Sheep and goat rearing	2	27	3	30	14	0	14	41	3	44
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	9	2	11	3	2	5	12	4	16
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)										
Health and nutrition										
TOTAL	11	127	83	210	35	17	52	162	100	262

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	2	0	48	48	0	12	12	0	60	60
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)										
ICT in agriculture	1	10	20	30	3	2	5	13	22	35
TOTAL	3	10	68	78	3	14	17	13	82	95

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	2	60	20	55	5	0	5	65	20	85
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	2	37	34	71	1	2	3	38	3	41
Gender mainstreaming through SHGs	1	0	27	27	0	0	0	0	27	27
Formation and Management of SHGs										
Women and Child care	2	0	60	60	0	0	0	0	60	60
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization	3	27	71	98	2	22	24	29	93	122
Information networking among farmers										
Capacity building for ICT application	3	101	5	106	12	0	12	113	5	118
Management in farm animals	1	30	12	42	0	0	0	30	12	42
Livestock feed and fodder production										
Household food security	3	29	59	88	0	10	10	29	69	98
Any other (pl.specify)										
Women entrepreneur	5	0	129	129	3	21	24	3	150	153
Health and Nutrition	5	0	179	179	0	46	46	0	225	225
Micro food processing enterprise	2	0	66	66	0	14	14	0	80	80
Total	29	284	662	921	23	115	138	307	744	1051

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										
Good food & nutrition garden										
Any other (pl.specify)										
Entrepreneurship development	2	0	58	58	0	30	30	0	88	88
Women empowerment	1	0	18	18	0	3	3	0	21	21
Total	3	0	76	76	0	33	33	0	109	109

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	6	109	88	197	0	11	11	109	99	208	
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)											
	Soil and water conservation											
7	Post harvest technology and value addition											
7.a.	Processing and value addition	1	1	29	30	0	0	0	1	29	30	
7.b.	Others (pl.specify)											
	Storage loss minimization techniques											
8	Farm machinery											
8.a.	Farm machinery, tools and implements	13	385	87	472	77	22	99	462	109	571	
8.b.	Others (pl.specify)											
9.	Livestock and fisheries											
10	Livestock production and management											
10.a.	Animal Nutrition Management											
10.b.	Animal Disease Management											
10.c.	Fisheries Nutrition											
10.d.	Fisheries Management											
10.e.	Others (pl.specify)											
	Scientific dairy management	5	61	38	99	13	15	28	74	53	127	
	Poultry management	1	9	2	11	3	2	5	12	4	16	
	Scientific management of sheep & goat	2	27	3	30	14	0	14	41	3	44	
	Management in farm animals	1	30	12	42	0	0	0	30	12	42	
11.	Home Science											
11.a.	Household nutritional security	10	5	327	332	0	61	61	5	433	388	
11.b.	Economic empowerment of women	6	0	154	0	0	32	32	0	186	186	
11.c.	Drudgery reduction of women											
11.d.	Others (pl.specify)											
	Waste management	5	0	0	0	0	148	148	0	148	148	
	Tailoring & stitching	1	0	24	24	0	6	6	0	30	30	

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
Field Day	12	301	83	384	73	24	97	12	9	21
Kisan Mela	3	536	185	721	52	34	86	0	4	4
Kisan Ghosthi	1	0	385	385	0	30	30	16	4	20
Exhibition	4	14000	7135	21135	1795	1880	3675	177	161	338
Film Show	8	66	288	354	59	46	105	2	6	8
Method Demonstrations	8	170	159	329	28	14	42	9	29	38
Farmers Seminar	5	241	184	425	122	37	159	11	7	18
Workshop	6	250	770	1020	10	24	34	5	2	7
Group meetings	9	123	45	168	24	8	32	7	5	12
Lectures delivered as resource persons	12	325	291	616	39	67	106	11	13	24
Advisory Services	108	100	9	109	0	0	0	3	2	5
Scientific visit to farmers field	117	664	103	767	0	0	0	3	1	4
Farmers visit to KVK	160	607	305	912	67	79	146	50	7	57
Diagnostic visits	12	55	0	55	5	0	5	0	0	0
Exposure visits	3	93	9	102	2	0	2	2	0	2
Soil health Camp	4	200	75	275	53	10	63	5	0	5
Animal Health Camp	1	60	20	80	0	0	0	1	0	1
Soil test campaigns	2	35	12	47	4	0	4	3	1	4
Celebration of important days (specify)										
International Women's Day	1	5	51	56	16	8	24	2	2	4
Vigilance awareness week	1	175	30	205	0	0	0	3	2	5
World food day	1	32	40	72	10	13	23	3	2	5
World soil day	1	88	204	292	34	0	34	8	0	8
Kisan Diwas	1	65	2	67	0	0	0	4	2	6
Mahila Kisan Diwas	1	22	50	72	5	18	23	4	2	6
World environment day	1	20	4	24	3	3	6	3	2	5
World water day	1	59	52	111	16	8	24	2	2	4
Special day celebrations										
94 th ICAR Foundation Day	1	160	40	200	0	0	0	6	5	11
Total	484	18452	10531	28983	2417	2303	4720	352	270	622

8.2 Other extension activities like print and electronic media etc.

Sl. No.	Type of media/activity	Number of activities/Number
1	Popular articles	3
2	Newspaper coverage	24
3	Extension Literature	12
4	Radio Talks	46
5	CD/DVD/Video clips	4
6	Animal health camps (no. of animal treated)	1 (50)
	Total	90

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS (2022)**9.A. Production of seeds by the KVKs**

Crop category	Name of the crop	Variety	Quantity of seed (qtl)	Value (Rs)	Number of farmers to whom provided
Cereals (crop wise)	Rabi Jowar	SPV-2217	1.92	9600	64
	Foxtailmillet	DHFt-109-3	0.62	3720	31
	Pearlmillet	VPMV-7	0.36	5400	18
Oilseeds	Groundnut	Dh-256	10.32	87960	14
		KDG-123	26.8	189400	53
		DSG-1	0.9	10800	3
	Safflower	GJG-19	0.9	19800	3
		ISF-764	10.32	103200	60
		A-2020	0.175	1750	5
Pulses	Bengalgram	JAKI-9218	18.6	186000	83
	Bengalgram	Phule Vikram	1.0	10000	5
	Bengalgram	NBEG-47	1.0	10000	5
	Bengalgram	DBGV-204	1.0	10000	5
	Greengram	DGGV-2	3.97	47640	51
	Redgram	TS-3R	1.08	16200	36
	Blackgram	LBG-791	1.05	15750	15
	Blackgram	DBGV-5	0.35	4970	5
	Blackgram	BDU-12	0.35	8750	5
Commercial crops					
Vegetables	Onion	Bhima super	0.75	150000	37
		Arka kalyan	0.18	36000	4
	Chilli	Byadgidabbi	0.14	35000	14
Flower crops					
Spices					
Fodder crop seeds	Sorghum Multi-cut	COFS-31	22.10 Kg	20065	21
			8.00 Kg	1042	20
	Fodder Cowpea		4.90Kg	1499	20
	Stylohaemata		1.50 Kg	720	20
	Styloscabra		5.15 Kg	5272	21
	Lucerne		4.55 Kg	2112	20
	Subabul		0.50 Kg	700	2
	Hedge Lucerne		1.50 Kg	2250	20
	Sesbenia grandiflora		125.50Kg	15820	30
Fodder Oats					
Fiber crops					
Forest Species					
Others (specify)					
Total			83.522	1011420	690

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

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

9.C. Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Number	Value (Rs.)	Number of farmers to whom provided
Commercial					
Vegetable seedlings	Drumstick	Bhagya	225	4500	36
Fruits	Mango	Alphanso	182	31850	36
	Tamarind	PKM-1	70	7000	35
	Amla	NA-7	350	38500	0
	Amla	Krishna	250	25000	0
	Jamun	AJG-85	105	15750	36
	Guava	Lucknow-49	365	32850	36
	Custard apple	Golden	225	22500	36
	Citrus	Balaji	225	33750	35
	Papaya	Red lady	125	6250	36
	Fig	Bellary	40	1400	0
Ornamental plants					
Medicinal and Aromatic					
Plantation	Cashewnut	Vengurla-4	172	21500	1
Spices	Curryleaf	Suhashini	175	5250	1
Tuber					
Fodder crop saplings	Guinea grass		14092	16910	20
	Congo signal		5202	5352	20
	Rhodes grass		11737	11737	20
	Super Napier		9250	18500	22
Forest Species	Mahagani		400	20000	8
	Teak		400	16000	8
	Sandalwood		800	28000	0
Others(specify)					
Total			44390	362599	386

9.D. Production of planting materials by the KVKs

Crop category	Name of the crop	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Vegetable seedlings	Chilli	Byadgidabbi	5000	5000	2

9.E. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers	Vermiwash	240 lit	9600	30
	Vermicompost	152 Qtl	60800	48
	Rhizobium	44.0 kg	5500	60
	PSB	58.0 kg	7000	60
	Azospirillum	6.0 kg	600	27
Bio-pesticide			0	
Bio-fungicide	Trichoderma	28.0 kg	5950	64
Bio Agents	Earthworms	93.0 kg	28800	48
Others (specify)	Azolla	5.0 Kg	500	4
Total		15674	118750	341

9.F. Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
RAM	Nari Suvarna	4	120000	4
Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total				

PART X – PUBLICATION, SUCCESS STORY, INNOVATIVE METHODOLOGY, ITK, TECHNOLOGY WEEK**10. A. Literature Developed/Published (with full title, author & reference)**

(A) KVK Newsletter:

Date of start: English News Letters – January, 2003 &
Krishi Darpana in Kannada language – October 2015

Periodicity: Monthly Copies printed in each issue: 250

(B) Literature developed/published

Item	Number
Research papers- International	0
Research papers- National	0
Technical reports	0
Technical bulletins	4
Popular articles - English	0
Popular articles – Local language	3
Extension literature	2
Others (Pl. specify)	
TOTAL	9

(iii) Details of Literature developed/published

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

1. Research articles in journals: NIL**2. Technical Reports/ bulletins:** Authors name, Title of the technical report, name of publishing KVK, number of pages.

KVK Scientists, (April-June, 2022) Krishi Vigyan Patrike, Volume-12, Issue-2, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 8p.

KVK Scientists, (July-September, 2022) Krishi Vigyan Patrike, Volume-12, Issue-3, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 8p.

KVK Scientists, (October-December, 2022) Krishi Vigyan Patrike, Volume-12, Issue-4, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 10p.

KVK Scientists, (January-March, 2023) Krishi Vigyan Patrike, Volume-12, Issue-1, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 9p.

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

Dr. Sudha V. M. (July 2022), Aarogya Vardhak - Kusube Enne, *Krishi Kamadenu*, 15(7)34-36

Dr. Gururaj Kombali. (27-11-2022), Pulse Magic, *Neladanudi*, 2

Dr. Gururaj Kombali. (05-12-2022), Manne Manikya, *Neladanudi*, 2

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.

Dr.Gururaj Kombali(December, 2022), Natural Farming, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 12p

Mr. N.H.Bhandi (June 2022), The Journey towards Sustainability through NICRA Interventions in Mahalingapur Cluste Villages of Gadag district, ICAR-K.H.Patil Krishi Vigyan Kendra, 12p

10.B. Details of Electronic Media Produced

Sl. No.	Type of media	Title	Details
1	CD / DVD	Sahakar Radio Gadag (Community Radio Station of KVK)	About Sahakar Radio Gadag. Type of programmes broadcasted through Radio.
		Improved Agronomic Practices	Lecture on Improved Agronomic Practices for higher productivity in Greengram
2	Mobile Apps	-	-
3	Social media groups with KVK as Admin	WhatsApp – • KVK, HULKOTI, GADAG group • Cashew Growers group • Mango Growers group • GADAG FPO's • Nutri-Garden farmers • Dairy entrepreneurs : KVK	2876 members
4	Facebook account name	KhpKvkHulkoti	519 followers
5	Instagram account name	KVKGadag	80 followers
6	Twitter Account	ICAR-KVK Gadag	59 followers
7	Youtube Account	K.H.Patil Krishi Vigyan Kendra Hulkoti	4740 subscribers

10.C. Success Stories / Case studies

i) Doubling of Income of Blackgram Farmer :

Shri Mruthunjaya S. Malimath of Akkigunda village in Shirahatti block is one of the young farmer who participated in CFLD-Blackgram programme under NFSM Project of KVK during 2022-23. He was very enthusiastic to adopt improved technologies to address productivity constraints in Blackgram. He used to cultivate Local Blackgram variety. Incidence of wilt, thrips and powdery mildew were the major problems that affected the yield to the extent of 40-45 percent. Apart from this, there was also knowledge gap in management of pod borer and nutrient application. Demonstration was laid out in his farm under the supervision of KVK Scientists. Details of technologies demonstrated were use of high yielding and wilt tolerant variety (DBGV-5), seed treatment with trichoderma and bio-fertilizers. Local check was also laid out adjacent to the demonstrated plot. Shri Mruthunjaya adopted all the suggested technologies related to sowing method, seed rate, nutrition, intercultivation and management of pod borer. KVK Scientists periodically visited his plot and gave him timely suggestions. As a result of this, a very good crop was raised and all the farmers in the village visited this plot and learnt about the technologies adopted. The performance of demonstrated plot against local check is given below.

Performance of technologies in demonstration						
Yield (Q/ha)			Net returns (Rs./ha)			Yield gap (q/ha) over check
Demo	Check	% increase	Demo	Check	% increase	2.91
9.24	6.33	45.97	33288	17996	84.97	

Thus farmer could get 45.97 per cent increased yield and 84.97 per cent increased net income. His net income was almost doubled. Potential yield of the variety was achieved. This yield was 3 times the yield of State and District average.



KVK Scientist interacting with Blackgram farmers



Field day organised on farmers' field

ii) Intercropping System for Enhancing Farmers Income :

Shri Heggappa N. Gudami of Singatarayankeri village in Mundaragi block is one of the farmers who participated under NICRA project of KVK during 2022-23. He adopted Maize+Redgram, a new technology to address the productivity constraints in Maize. He used to cultivate Maize as a sole crop, but due to moisture stress, incidence of fall army worm and turcicum leaf blight, the yield of Maize was very low and net returns was also less. Hence, through KVK guidance he adopted Maize+Redgram intercropping system in Kharif, 2022 and followed ICM practices as advised by KVK Scientists like medium duration TS-3R variety



of Redgram crop, seed treatment with bio-fertilizers, trichoderma, nipping, foliar spray of pulse magic etc. The farmer managed fall army worm and turcicum leaf blight in Maize. As a result of this, bumper crop was raised in intercropping system as compared to sole crop of Maize.

The neighboring farmers visited the demonstration plot and learnt about the different technologies adopted in his field. The results of the demonstration plot against local check is given below.

Performance of technologies						
Yield (Q/ha)			Net returns (Rs./ha)			Yield gap (q/ha) over check
Demo	Check (Maize as sole crop)	% increase	Demo	Check	% increase	CEY of Maize: 12.75
CEY of Maize:67.50 Maize : 49.50 Redgram: 7.50	54.75	23.28	90375	69750	29.56	

The farmer could get 23.28 percent increase in yield and 29.56 percent increase in net returns as compared to local. Hence, this intercropping system helped the farmer to gain more income.

iii) High Density Planting in Cashew- A Novel Approach for Doubling Farmers Income:

Mr. Basavaraj Halli is native to Shagoti village of Gadag block in Gadag District. He used to cultivate spreading groundnut crop in his 3 acres of land. Due to frequent occurrence of drought coupled with high cost of cultivation, he could not get sustainable income from groundnut cultivation. The red soil with poor moisture holding capacity restricted him to take up only one crop in a year during *kharif* season. Mr.Halli has decided to plant Cashew crop in his 3 acres of land during 2017. Grafts were supplied by Directorate of Cashewnut and Cocoa Development, Cochin with 3 years of financial



assistance under Cashew Promotion Scheme. With the guidance of KVK, Gadag, he has planted 480 grafts of cashew at 5m x 5m (HDP) spacing. Latest technologies in soil and water conservation,



Pruning and training of plants, Drip irrigation system and fertigation techniques for efficient utilization of water and nutrients, timely Integrated Pest and Disease Management (IPDM) were practiced by him under KVK guidance. As a result, Yield of raw cashew doubled every year and in 2021, he harvested 14.50 quintals of raw nut. He

has undertaken Banana as intercrop in cashew for initial 3 years under protective irrigation and earned Rs.1.50 lakhs from Banana crop. Income of the farmer has increased by 410 % since he has taken up cashew planting. More than 600 farmers from various districts of Karnataka visited his cashew orchard. The farmer got Best Cashew Farmer Award in Cashew cultivation on 30-01-2023 by Directorate of Cashew and Cocoa Development Board, Cochin during National Conference of Cashew at Bhubaneshwar, Odisha.

iv) **Successful Dairy Unit of a Youth**

Every unemployed youth should learn from Mr. Sharanappa S. Nagavimath of Kurtakoti village in Gadag taluk. Mr. Sharanappa, who studied upto Diploma is a successful dairy entrepreneur. He has an ancestral land of 5 acres. He used to cultivate field crops viz., Bengalgram, Jowar, Sunflower etc. Due to frequent occurrence of agricultural drought, income from the agriculture was not sufficient to meet his family needs. He thought of starting the dairy unit for getting additional income. But the main issue for him was guidance and support.



During 2020-21, he participated in the dairy training organised by SBI-ASF-RSETI, Hulkoti in



collaboration with KVK Hulkoti. He discussed with the experts about his dream project of dairy. KVK provided him the necessary guidance and support. Mr. Sharanappa spent Rs.3.5 lakhs for construction of dairy shed. Initially he purchased 1 she Buffalo from Gadag Animal Market. After 2 months, he again purchased 2 she Buffaloes, later after 6 months he bought 5 Buffaloes.

Totally He has purchased 8 she buffaloes including heifer in a span of 1 year period and was getting sustainable income from milk production of 7 liters / day / buffalo.

Among 8 she buffaloes only 6 were milking and daily milk collection was 40-42 litres. He sells the milk in the Kurtakoti village. He says that, he gets price of Rs.40 per litre for Buffalo milk. Monthly he spends Rs.15,000 towards purchase of animal feed and for transportation of milk from his dairy farm to village. He says that he gets gross income of Rs.42,000/- from sale of milk per month and his net monthly income is around Rs.27,000/-.



This is one of the good example of how a youth plunged into dairy enterprise in drought prone area succeeded by utilising existing resources. When asked about his future plan, he says that he would extend the unit to 20 animals in next two years.

v) **Agriculture Graduate became Entrepreneur**

Smt. Mangala Kiran Neelagund is an agriculture graduate from University of Agriculture Sciences, Dharwad. She is resident of Mulgund which is 20 kms from Gadag city as well as KVK Campus. Initially, she took the responsibility of nurturing her



children and family and her husband to take care of business and agriculture farm. Once the children grew up she got involved in agriculture works with more focus on entrepreneurship. From the beginning, she wanted to start sheep and goat rearing enterprise but because of family tradition her father-in-law did not allow her to start the enterprise. Slowly she convinced her in-laws and she started the dairy enterprise and sheep and goat rearing unit in 2016, under the technical guidance of ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti.

Later in 2021, under the technical guidance of ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti she established chilli processing unit under one district one product (ODOP) programme. She had marketed more than 10 quintals of organic chilli powder, turmeric and chilli value added products worth of Rs.8.00 lakhs. Under Entrepreneurship Development Programme, KVK facilitated her to get FSSAI Registration as



well as Udyan Registration. In addition, the product label designing with all the technical information was



facilitated by KVK. She started marketing of chilli products through local shops, exhibitions and her friends. The chilli products got popularized because of their quality, colour and taste. Then, she contacted Karnataka State Department of Agriculture, Gadag and established chilli pounding machine. Then, her works became easy and she provided employment to

5 women during season. She participated in Zonal Workshop of KVKs of Zone-11 organised by ICAR-ATARI, Bengaluru and UAS, Dharwad and exhibited chilli products. From then her products got more popular as orders started pouring in from many places.

The economic details of Chilli enterprise was given below:

Year	Product name	Income			Expenditure		
		Quantity produced (qtls.)	Market rate/kg (Rs.)	Total (Rs.)	Raw materials & other expenses (Rs./ kg.	Total expenses (Rs.)	Net income (Rs.)
2021-22	Red chilli powder	1.50	450	67500	300	45000	22500
	Masala chilli powder	0.20	600	72000	450	19000	3000
2022-23	Red chilli powder	10.00	600	600000	500	500000	100000
	Masala chilli powder	0.50	600	30000	500	26000	5000

Within a span of 3 to 4 months, she earned a net income of Rs.1,00,000 from the chilli enterprise. To handhold other women in her surrounding, she established Unnati Mahila Samaja Seva and Multipurpose Society at Mulagund village comprising of 150 women members. Among them, she created employment opportunities for 25 women entrepreneurs in packing and marketing of products like Ethnic sweets, crisp roties, kumkum, papads and sandige. By seeing her success many organizations have awarded her with honors and certificates. The details are enclosed.



SI No	Award Name	Year of Award	Field	Level of award	Awarding body
1	Taluk Level best Farmer Award	2020	Integrated Farming System (IFS) and Entrepreneur	Others	Agriculture Department under ATMA Scheme
2	Best Women Farmer Award	2021	IFS, Goat Farming and Entrepreneur	Others	ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti
3	Raitha Ratna Award	2021	IFS, Goat Farming, SHGs and Entrepreneur	Others	Irkal Mutt, Raichur
4	Raitha Ratna Award	2022	Integrated Farming System	State	Krushika Samaja, New Delhi
5	Recognition Award for outstanding contribution	2022	Women Agriculture Entrepreneur & IFS	State	Kissan Pragati Award Outgrow Organisation, Bangalore
6	Shresta Krishi Mahila Award	2022	Women Agriculture Entrepreneur	State	University of Agricultural Sciences, Dharwad

Smt. Mangala is identified as Innovative Farmer and DFI Farmer by ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti and UAS, Dharwad during 2021-22.

By seeing the demand and the successful venture, now she is thinking of establishing large scale chilli processing unit. Hope this year her dream may come true.



vi) Enhancing Livelihood through Food Processing Enterprise

Smt. Shamala Ellaraddi Karuru aged 43 is resident of Binkadakatti village in Gadag block which is 8 kms away from K.H.Patil Krishi Vigyan Kendra, Hulkoti. She is SSLC passed and looking



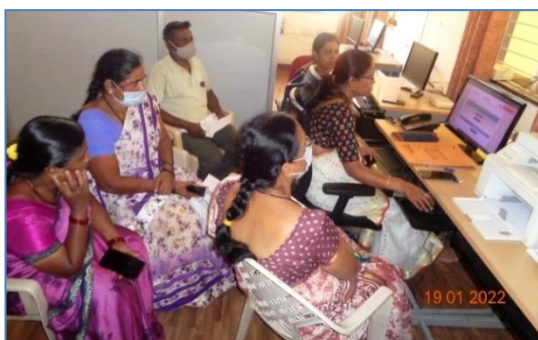
after SHGs organized by KSRLPS under NRLM for the



last 7 years. She works as Main Book Keeper (MBK) at her own village and looking after 20 SHGs. Her husband supplies newspapers to families and he owns 2 acres of dryland. The income they got from both works was not sufficient to meet the livelihood needs of the family as her son is a handicapped. Meanwhile, during her free time she used to prepare ethnic sweets and marketing through exhibitions and local consumers. She visited KVK for attending training organized by ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti under National Rural Livelihood Mission. By seeing the interest, KVK selected her as entrepreneur for the Entrepreneurship Development Programme for the year 2021-22.

During 2020-21, under ODOP the chilli crop had been identified for Gadag district. Smt. Shamala in her 2 acres land used to cultivate red chilli. She showed interest in marketing of chilli products rather than selling dried red chillies. She realized that marketing of chilli products will

give more training at of chilli licensing FSSAI materials, marketing.



income. Accordingly she attended 3 days KVK during January, 2022 on preparation value added products, packing, labeling, and marketing. KVK later facilitated her in licensing and provided packaging helped her in designing of labels and The products were neatly packed in

standup pouches with attractive labels.

Year	Product name	Income			Expenditure		
		Quantity produced (qtls.)	Market rate/kg (Rs.)	Total (Rs.)	Raw materials & other expenses (Rs./ kg.	Total expenses (Rs.)	Net income (Rs.)
2021-22	Red chilli powder	2.00	450	90000	250	50000	40000
	Masala chilli powder	0.25	600	15000	450	11250	3750
2022-23	Red chilli powder	3.00	600	180000	500	150000	30000
	Masala chilli powder	0.50	600	30000	500	25000	5000

She started marketing the chilli products through KVK sales outlet, local shops, off shoot marketing, exhibition etc., Apart from chilli products, she purchased small flour mill and prepares turmeric powder and other products. Thus she could add additional income of Rs.40,000 to Rs.50,000 to her family to meet the livelihood needs of the family. Her daughter and her husband also support in production and packing of chilli products. She gives credit to KVK for the technical support and hand holding by KVK Scientist in her entrepreneurship journey.



10.D. Give details of innovative methodology or innovative approach of technology developed and used during the year

I) TECHNOLOGY TRANSFER THROUGH COMMUNITY RADIO STATION

In order to disseminate the technologies to the farming community in an effective manner, Community Radio Station (FM 89.6) has been started at KVK, Gadag. This radio station covers all the blocks of Gadag District covering a radius of 60 km around KVK. An android app has also been developed which can be installed in smart phones and the programmes can be listened from any part of the world. Number of radio talks related to crop production technologies, animal husbandry, soil and water conservation, entrepreneurship development in agriculture, dryland horticulture and agricultural mechanization were given by the scientists. Apart from this, daily weather forecast is also being broadcasted every day which helps farmers to take decisions in various field operations.

List of radio talks broadcasted are given below

1. Nano Urea: Importance and Uses
2. Integrated Crop Management practices in different kharif crops for higher productivity
3. Improved practices in Chickpea cultivation
4. Integrated Crop Management in Bt. Cotton cultivation
5. Integrated Crop Management in Rabi Sorghum cultivation
6. Natural Farming Practices
7. Importance of Soil in Agriculture
8. Cultivation of Cashew in Dryland Horticulture
9. Cultivation of Mango in Dryland Horticulture
10. Entrepreneurship in Food Processing Sector
11. Use of Renewable Energy Sources in Agriculture
12. Drone Sprayer and its Utility
13. Malnutrition and Importance of Balanced Diet
14. Agri Nutri Garden
15. Disease Management in Dairy Animals
16. Scientific Dairy Farming
17. Resources for Poultry Farming
18. Rain Water Harvesting Practices
19. Kisan Sarathi
20. Use of ICT in agriculture
21. Calf a year
22. Animal reproduction and its importance

23. Importance of Artificial Insemination and causes of reproductive diseases
24. Animal Husbandry in Organic Farming
25. Lumpy Skin Disease
26. Animal based Integrated Farming System
27. Foot and Mouth Disease
28. Azolla Production

II) TRANSFER OF TECHNOLOGY THROUGH VIRTUAL MODE

Farmers face various problems in crop cultivation. It is very difficult to reach the farmers physically to address their problems with limited human resource in the KVK. Hence, interactive audio conference (Group calling), video conference and online trainings were conducted to disseminate the technologies and to provide timely suggestions with respect to production of different crops to farmers of various villages in the district. KVK has also formed WhatsApp groups of different crop growers and timely messages are being sent to these groups.

Video conferences, YouTube Live streaming and Audio conferences were also held for various crops. Thus, the TOT through virtual mode is enabling KVK scientists to reach more number of farmers.

10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK	Scientific Rationale
1	Crops	To reduce the infestation of weed i.e. <i>Cyperus rotundus</i> , the farmers practice weekly harrowing throughout the end of rainy season i.e. from April to October. Then they will take up Rabi Sorghum crop.	Every week harrowing with blade goes on cutting the fresh sprouting meristems of the weed <i>Cyperus rotundus</i> . This weekly cutting results in exhausting of the nutrients present in the bulbs of weeds and no chance for photosynthesis by leaves. Hence, the roots get deprived of the fresh photosynthates on one hand and on the other the stored energy gets lost due to growth of fresh meristems every week, but they get cut off with harrowing blade. Thus, the weed has no chance of re-growth when weekly harrowing is done regularly from April to October.	The weekly cutting results in exhausting of the nutrients present in the bulbs of weeds and no chance for photosynthesis by leaves. Hence, the roots get deprived of the fresh photosynthates on one hand and on the other the stored energy gets lost due to growth of fresh meristems every week, but they get cut off with harrowing blade. Thus, the weed has no chance of re-growth when weekly harrowing is done regularly from April to October.
2	Livestock	Turmeric powder mixed in ghee, heated and applied	For the healing of wound	Turmeric has got anti microbial properties.
3	Livestock	Washing of hoves of	For the treatment of foot and	Lime has antiseptic

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK	Scientific Rationale
		animals with lime water	mouth disease	property. It kills germs and healing is fast.
4	Livestock	Zeera & Garlic are boiled in water and is fed	For the treatment of fever	Act as anti cold & fever.
5	Livestock	<ul style="list-style-type: none"> Tobacco shoot with Kerosine oil paste is made and applied Leaves of neem or neem oil 	For the treatment of ecto parasite infestation	Tobacco contain nicotine that kills ecto parasite. Neem has got ectoparasiticidal properties.
6	Livestock	Feeding of Brinjal 1 Kg/day for 10 days to dairy animal	Reduced high temperature stress leads the dairy animals come into heat	Potassium content is more in Brinjal. So Potassium helps to reduce high temperature stress.
7	Livestock	Feeding of handful of curry leaves to dairy animals / day for 10 days after AI done.	Increased percentage of conception rate	They are rich in Proteins, Phosphorus, Calcium, Iron, Folic acid, Vitamins like A,B,C & E and these help in higher percentage of conception.

10 F. Technology Week celebration:

Period of observing Technology Week: **From 23-01-2023 to 28-01-2023**

Total number of farmers visited : **7500**

Total number of agencies involved : **1**

Number of demonstrations visited by the farmers within KVK campus : **6**

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Lectures organized	3	220	Lectures organized on crop & dairy technologies
Exhibition	1	7500	Both crop and livestock technologies
Film show	1	40	Nutri Garden
Fair			
Farm Visit	3	152	Rabi crops, Livestock, Agricultural Machineries
Diagnostic Practicals	3	87	Method demonstration on use of Phermone traps, spray of Pulse Magic & solar operated sprayer
Supply of Literature (No.)	8	6400	Crop technology & others
Supply of Seed (q)	3.12	6	Groundnut seeds
Supply of Planting materials (No.)	-	-	-
Bio Product supply (Kg)	12.5	6	Earthworms & Azolla
Bio Fertilizers (q)	-	-	-
Supply of fingerlings	-	-	-
Supply of Livestock specimen (No.)	-	-	-
Total number of farmers visited the technology week		7500	

10 E. Recognition and Awards: Nil

PART XI – SOIL AND WATER TEST

11.1 Activities of Soil and Water Testing Laboratory

- A. Status of establishment of Lab : 2005-06
1. Year of establishment : 01.07.2005
 2. List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
A) Non-recurring contingency			
1	Spectrophotometer	1	0.60
2	Flame photometer	1	0.50
3	pH meter	1	0.10
4	Conductivity bridge	1	0.10
5	Physical balance	1	0.10
6	Chemical balance	1	1.00
7	Water distillation still	1	1.00
8	Orbital shaker	2	0.60
9	Shaker	2	0.50
10	Refrigerator	1	0.20
11	Oven with optional attachments	1	0.15
12	Hot plate with all models	1	0.25
13	Grinder with motor	1	0.30
14	Laboratory set up (all basic facilities)		3.20
15	PUSHA STFR meter Kit	1	0.75
16	MRIDAPARIKSHA	1	0.903
Total (A)			10.253
B) Recurring contingency			
1	Chemical & glasswares		3.50
2	Miscellaneous items		0.20
3	Soil and plant sample processing and storage facility		0.50
Total (B)			4.20
Grand Total (A+B)			14.453

B. Details of samples analyzed so far since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	10973	24275	362
Water Samples	5618	5396	"
Plant samples	116	116	"
Manure samples	-	-	-
Others (specify)	-	-	-
Total	16591	29787	362

C. Details of samples analyzed :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages
Soil Samples	523	1367	58
Water Samples	227	218	41
Plant samples			
Manure samples			
Others (specify)			
Total	750	1585	58

11.2 Mobile Soil Testing Kit :

A. Date of purchase and current status

Mobile Kits	Date of purchase	Current status
1. PUSA SFTR meter kit	22-02-2016	Working
1. MRIDA PARIKSHAK	31-03-2017	Working

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

	During 2021	During 2022	Cumulative progress (Total)
Samples analyzed (No.)	325	253	1813
Farmers benefited (No.)	909	654	5288
Villages covered (No.)	6	5	28

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	1 st April, 2022 to 31 st March, 2023	53	713	270	713
Mobile Soil Testing Kit	1 st April, 2022 to 31 st March, 2023	5	654	253	654

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	122 farmers + 204 students	115	-	-	10	2

PART XII. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Nipping in Bengalgram	160	50	Rs.22,500/ha	Rs.29,800/ha
Feeding of Silage Fodder to CB Cows	130	24	Rs.15,066/lactation/cow	Rs.19,576/lactation/cow
Mango special (micronutrient mixture) application	86	80	Rs.80,000/ha	Rs.1,20,000/ha
Introduction of Arka Prasanna improved variety in Ridgegourd crop	37	55	Rs.83,000/ha	Rs.1,25,000/ha
Azolla as animal feed	150	35	Rs.9300/cow /lactation	Rs.13287/cow / lactation
Use of ISF-764 variety of Safflower along with ICM Practices	154	80	Rs.25,000/ha	Rs.35,000/ha
Use of Arka Vegetable special for micronutrient management in vegetables	60	55	Rs.67,000/ ha	Rs.79,000/- ha
Use of Chickpea Magic for foliar spray in Bengalgram	1000	90	Rs.75,000/ha	Rs.93750/ha
Use of DGGV-2 variety of Greengram along with ICM Practices	533	40	Rs.58900/ha	Rs.77500/ha
Fruit fly traps for management of Mango and Guava fruit fly	25	50	Ra.80,000/ha	Rs.100000/ha

12.B. Cases of large scale adoption

(Please furnish detailed information for each case with suitable photographs)

i) Large scale adoption of DGGV-2 variety of Greengram

Greengram is the important pulse crop of Gadag District, mainly cultivated under rainfed conditions during kharif season. It is being grown in an area of 1,20,000 ha. The productivity of the crop was very less due to decreasing yield potential of Selection-4 and Shining Moong varieties cultivated by the farmers. From 2016-17 onwards, KVK started promoting DGGV-2, a high yielding variety of Greengram which is suitable for mechanical harvesting as well. Integrated Crop Management Practices were also demonstrated in DGGV-2 variety of Greengram. Since 2016-17, KVK has organized Front Line Demonstrations in 245 hectares of area covering 612 farmers. The demonstrations were organized under KVK's FLD programme as well as Cluster Front Line Demonstration under NFSM programme. The demonstrations have been very successful as there was increase in yield by 24 %.

Seven years of demonstration programme has produced more than 2600 quintals of seed material which the FLD farmers supplied to the other farmers. Apart from this, KVK has also produced 89 quintals of

DGGV-2 variety and supplied to the farmers from various villages of the District. Thus the variety has reached to most of the villages in the district and resulting in enhanced productivity.

ii) Large Scale Adoption of ISF-764 variety of Safflower

Safflower being one the prominent oilseed crop is grown during rabi season under rainfed condition in Gadag. The crop is being grown in an area of 4500 ha in the District. The productivity of the crop was less due to decreasing yield potential of A-1 variety. ISF-764 variety was promoted by KVK, Gadag for higher yield and productivity. Since 2016-17, KVK has organized Front Line Demonstrations in 106 hectares of area covering 265 farmers. The demonstrations were organized under KVK's FLD programme as well as Cluster Front Line Demonstration under NFSM Oilseeds programme. The demonstrations have been very successful as there was increase in yield by 21.8 %.

750 quintals of seed material was produced by demonstration for 7 years. Apart from this, KVK also produced 140 quintals of seeds and supplied to the farmers. Thus the productivity of crop has been enhanced considerably.

iii) Large scale adoption of JAKI-9218 variety of Bengalgram crop:

Bengalgram is the important Pulse crop of Gadag district, mainly cultivated under rainfed situation. It is being grown in an area of 75,000 ha. The productivity of the crop was very less due to decreasing yield potential of Annigeri-1 and JG-11 varieties cultivated by the farmers. From 2014-15 onwards, KVK started promoting JAKI-9218, a high yielding variety. Integrated



Crop Management practices were also demonstrated along with JAKI-9218 variety. From 2014-15 to 2022-23, KVK organised Front Line Demonstrations in 402 hectares of area covering 665 farmers and farm women. The demonstrations were organised under KVK's FLD programme as well as Cluster Front Line Demonstration under NFSM programme. The demonstrations have been

very successful as there was 20-25 percent increase in yield.

Nine years of demonstration programme has produced 4700 quintals of seed material which FLD farmers supplied to other farmers. Apart from this, KVK produced 116 quintals of JAKI-9218 variety and supplied to farmers.

There was heavy demand for the seed and KSSC took up seed production and supplied more than 10800 quintals of seeds during last four year period. Thus, JAKI-9218 variety is spread in nearly 70 percent of total area cultivated in Gadag district.

iii) Adoption of Chickpea magic

Chickpea Magic is a nutrient consortium which contains macro and micro nutrients along with growth regulators for chickpea crop. It reduces the flower dropping and increases pod formation thereby the yield of chickpea will be enhanced significantly. The chickpea magic was procured by KVK Gadag and tested during 2018-19. After getting good results, wide publicity was given about its utility through newspaper articles, radio talk and by distributing pamphlets in various melas. During 2021-22, about 200 packets of Chickpea magic were supplied which accounts to the spread of 160 ha. There was a positive response from the farmers who used the product. As a result, during 2022-23, the technology was spread to around 1052 ha wherein 2000 packets were sold to the farmers.

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

IMPACT ANALYSIS OF SPV-2217 VARIETY OF RABI SORGHUM ALONG WITH ICM PRACTICES

INTRODUCTION

Rabi Sorghum is an important cereal crop cultivated predominantly under rainfed situation during Rabi season in Gadag District. It occupies 10-15 per cent of the total cultivable area. The average productivity of crop decreased from 12 Qtls./ha during last decade to 8 Qtls/ha during current decade.

The major reasons for decreased productivity are use of local low yielding variety M-35-1, incidence of stem rot disease and lodging problem. Farmers expressed helplessness in finding solution to the problems faced in the cultivation of Rabi Sorghum.

KVK INTERVENTIONS

ICAR-KVK, Gadag has then introduced high yielding and charcoal stem rot resistant SPV-2217 variety of Rabi Sorghum crop with ICM practices since 2017-18 in KVK and NICRA project adopted clusters of villages. Demonstration of ICM practices such as seed treatment with Azatobacter, Azospirillum & PSB and Seed priming with CaCl_2 were demonstrated. Moisture stress, zinc and sulphur nutrition problems were addressed by demonstrating compartmental bunding and application of zinc sulphate.

SPV-2217 variety of Rabi Sorghum was demonstrated in an area of 228 ha covering 570 farmers in a span of six years.



In addition to this, KVK has also taken up production of SPV-2217 seeds and made available 28.50 qtl of seeds benefiting 575 farmers. Programmes implemented by KVK year-wise in popularizing SPV 2217 variety of Rabi Jowar with ICM practices is presented in Table 1.

Table 1.: Details of Demonstration of SPV-2217 Variety of Rabi Sorghum with ICM Practices

Sl. No	Year	Area (ha.)	No. of farmers	Culster villages
1.	2017-18	40	100	Kochalapur, Mahalingpur, Madolli&Binkadakatti
2.	2018-19	40	100	Mahalingpur, Bevinakatti, Hiremannur, Gangapur & Ranatur
3.	2019-20	40	100	Mahalingpur, Kalakeri, Chikkasavanur and Shirol
4.	2020-21	42	105	Kalakeri Chikkasavanur, Mahalingpur and Shirol
5.	2021-22	30	75	Mahalingpur, Chikkasavanur and Shirol
6.	2022-23	36	90	Mahalingpur, Halligudi, Akkigund, Muganur and Asundi
TOTAL		228	570	

DETAILS OF TECHNOLOGIES DEMONSTRATED

SPV-2217 variety of Rabi Sorghum was demonstrated with following technologies:

- Seed treatment with Bio-fertilizers (PSB, Azospirillum & Azatobacter) which facilitates drought tolerance in crops through the supply of nutrients.
- Seed priming with Calcium Chloride @ 2% to enhance germination percentage, to improve the crop vigour and to induce drought tolerance to the crop.
- Demonstration of compartmental bunding for *in-situ* soil moisture conservation.
- Application of zinc sulphate to combat zinc and sulphur deficiency.

ECONOMIC PERFORMANCE OF DEMONSTRATION

KVK demonstrated SPV-2217 variety of Rabi Sorghum along with ICM practices in adopted clusters of villages by KVK as well as under NICRA project during 6 years period. From Table:-2, it can be observed that farmers obtained yield of 12.99 qtl./ha from cultivation of SPV-2217 variety as against 10.62 qtl./ha in local check. An increase of 22.73 per cent in yield was realized. Adopting ICM practices along with SPV-2217 variety of Rabi Sorghum has resulted in net additional returns of Rs. 10,415 per hectare with an average increase in net income of 44.60%.

Table 2. Economic performance of SPV 2217 variety of Rabi Jowar with ICM Practices

Sl. No	Year	Area (ha.)	No. of farmers	Yield (qtl/ha)		Increase in yield (%)	Net Income (Rs./ha)		Increase in Income (%)
				Local	Demo		Local	Demo	
1.	2017-18	40	100	9.95	12.03	20.90	16200	23020	42.10
2.	2018-19	40	100	5.11	6.55	28.20	16110	23060	43.15
3.	2019-20	40	100	8.42	9.65	14.60	16470	24410	48.20
4.	2020-21	42	105	9.91	12.52	26.33	16950	24190	42.60
5.	2021-22	30	75	12.8	16.16	26.25	18280	26470	42.70
6.	2022-23	36	90	17.5	21.02	20.11	18000	27150	48.80
TOTAL/AVG.		228	570	10.62	12.99	22.73	14301	24716	44.60

SPREAD OF TECHNOLOGY TO OTHER FARMERS :

As a result of KVK interventions through Front Line Demonstrations, Capacity Building Programmes and extension programmes, there has been a spread of the technology in more than 2500 ha. of area including area under demonstrations during last four years. The spread has been noticed mainly in KVK adopted clusters of villages. Farmers also expressed happiness



over the yield levels of SPV 2217 variety. Quality of Rotis made from the flour of demonstrated variety was also superior when compared to other varieties. This indicates that farmers have been convinced about the profitability of the demonstrated variety and ICM practices. During 2022-23, SPV-2217 variety was spread in 2500 hectares. Thus, it has contributed considerable net income to the district farmers.

ORGANOLEPTIC EVALUATION OF RABI SORGHUM VARIETIES :

Sl. No	Parameters	M 35-1	SPV-2217
1	Color of roti		
2	Taste of roti		
3	Stickiness of dough		
4	Non-watery texture of dough		
5	Overall acceptability		



M 35-1



SPV-2217

CONCLUSION

Demonstration of SPV-2217 variety of Rabi Sorghum along with ICM practices has created a tremendous impact in Gadag District in terms of increased yield and net returns. Front Line Demonstration, Trainings and Extension activities conducted by KVK in the adopted cluster of villages covering an area of 228 ha and 570 farmers has given fruitful results in spreading of SPV-2217 variety. Farmers have been convinced about the profitability of new variety as good net returns were achieved in a span of six years from 2017-18 to 2022-23. There has been a spread of technologies in about 2500 ha. in last six years and these farmers got increased net returns by about 44.60%. Thus the demonstrations had a huge impact in improving the income of farmers in rain shadow district of Gadag.

PART XIII - LINKAGES

13.A. Functional linkage with different organizations

Name of organization	Nature of linkage
University of Agricultural Sciences, Dharwad	<ul style="list-style-type: none"> • DAESI programme for input dealers • Krishi Sakhi programme • Technical back-stopping
Karnataka State Department of Agriculture	Training programmes, Workshops & serving as Resource Persons in different schemes, joint organisation of extension activities
Karnataka State Department of Horticulture	Capacity building training programmes under NHM Scheme
Department of Animal Husbandry and Veterinary Services	Organisation of Trainings/Workshop on Livestock Management
Rural Development and Panchayat Raj University, Gadag	Facilitation and guidance for students belonging to different disciplines of RDPR University, Gadag
Reliance Foundation	Capacity Building Programme for FPOs and advisory services for farmers
Shree Kshetra Dharmastala Rural Development Foundation	Training programmes for SHG Members and participation as Resource Person

13.B. List 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.)
-	-	-	-

13.C. Details of linkage with ATMA

a) Is ATMA implemented in your district : **Yes**

If yes, role of KVK in preparation of SREP of the district?

KVK provided input on problem identification , prioritization, researchable issues and strategies / technologies for different agro-eco systems in the district

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	KVK-ATMA Intefernce Meetings and ATMA Steering Committee meetings	2	4	-

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
02	Research projects	Assessment of Improved Bunch Groundnut varieties for higher productivity under Irrigated situation in Rabi-Summer season	-	-	Jointly organised with ATMA
		Assessment of ISF-764 and A-2020 varieites of Safflower for higher productivity			
		Assessment of NBeG-49 and Phule Vikram varieties of Bengalgram for higher productivity under irrigated situation			
		Upgradation of local sheep with Nari Suvarna Ram for high productivity of meat			
03	Training programmes	<ul style="list-style-type: none"> • ICM in Kharif & Rabi crops • Post Harvest Technology • Farmers' Producers Organisation • Integrated Farming System • Health, nutrition and terrace garden 	-	10	Jointly organised with ATMA
04	Demonstrations	ICM practices in Bengalgram	-	4	Jointly organised with ATMA
05	Extension Programmes		12	7	Jointly organised with ATMA
	Kisan Mela		-	1	Jointly organised with ATMA
	Technology Week		1	1	Jointly organised with ATMA
	Exposure visit		-	-	
	Exhibition		-	-	-
	Soil health camps		-	-	-
	Animal Health Campaigns		-	-	-
	Others (Pl. specify)		-	-	-
	Field Day		4	2	Jointly organised with ATMA
	Jal Shakti Abhiyaan		4	2	-

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
	World Food Day		-	-	-
	International Womens' Day		-	-	-
	World Soil Health Day		1	1	Jointly organised with ATMA
	Farmers' field school	-	-	-	-
	Farmer-Scientist Interaction Meet	-	-	2	Jointly organised with ATMA
06	Publications				
	Video Films	-	-	-	-
	Books	-	-	-	-
	Extension Literature	-	-	-	-
	Pamphlets	-	-	-	-
	Others (Pl. specify)	-	-	-	-
07	Other Activities (Pl. specify)				

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

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

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

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

13.F. Details of linkage with RKVY : NIL

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

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	
Spices & Plantation crops									
Cashew			1.20	Vengurla-4	Nuts	8.0	22000	94400	
Coconut	2018		4.00	Deejay sampoorna	Tender Nuts		35000	18500	
Coconut + Custardapple	2021		3.00	Kalpa surya, Kalpa jyothi, COD			8000	-	Planted 2 years back
Floriculture									
Fruits									
Tamarind			0.60	PKM-1 & DTS-1	Fruit	14.0	6500	55000	
Amla			0.60	NA-7, Krishna	Fruit	13.0	-	26000	
Mango			0.80	Alphonso	Fruit	-	23000	-	Crop failed
Tamarind + Mango + Amla	2021		8.0	DTS-1, Kesar, NA-7		-	11000	-	Planted 1 years back
Agroforestry	2020		0.8			-	3000	-	Planted 2 years back
Vegetables									
Onion	24.06.22	-	3.2	Bhima super	Bulb	-	50600	-	Crop failed due to excess rainfall
Others (specify)									

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

Sl.No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Vermicompost	152.0 Qtl	27500	60800	
2	Earthworms	0.93 Qtl	14200	22800	
3	Azolla	0.05 Qtl	1300	500	

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Buffaloes	Local	Milk	2537 lit	81919	86258	
2	Sheep	Rambullet local cross	Lamb	2 lamb	3500	10500	
3	Goat	Jamunapuri local cross	Kid	3 kid	6600	21000	

14E. Utilization of hostel facilities

Accommodation available (No. of beds) : 30

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 22	0	0	-
May 22	76	17	-
June 22	50	13	-
July 22	16	9	-
August 22	0	0	-
September 22	32	9	-
October 22	0	0	-
November 22	131	17	-
Decemer 22	110	25	-
January, 2023	15	9	-
February, 2023	0	0	-
March, 2023	22	4	-

14F. Database management

S. No	Database target	Database created
1	OFT	Already maintained
2	FLD	Already maintained
3	Training database	Already maintained
4	Seeds & planting material	Already maintained
5	All Extension activities	Already maintained
6	Farmers visiting to KVK	Already maintained
7	Field visits	Already maintained
8	District database	Already maintained
9	Soil & water test details	Already maintained
10	Database on KVK (i.e regarding KVK details, host institute details, staff information, KVK land information, KVK infrastructure, demo units, vehicle, office, lab, farm equipment & library)	Already maintained
11	HRD of KVK staff (i.e training/seminar/workshop attended by KVK staff)	Already maintained
12	Publications of KVK activities in news papers	Already maintained
13	Villages covered by KVK since inception	Already maintained
14	Kisan mobile advisory services – Subscribers and messages sent	Already maintained
15	Farm implements	Already maintained
16	Citizen's Client Charter	Already maintained

PART XV – SPECIAL PROGRAMMES**15.1 Paramparagath Krishi Vikas Yojana (PKVY) : NIL**

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

15.2 District Agriculture Meteorological Unit (DAMU) : NIL

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					
3					
4					

15.3 Fertilizer awareness programmeorganised

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

15.4 Seed Hub : NIL

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

15.5 CFLD on Oilseeds:

Sl. No.	Crop	Varieties demonstrated & Check		Allocated		Implemented	
		Demo	Check	Area (ha)	Demos (No.)	Area (ha)	Demos (No.)
1	Groundnut	Kadari Lepaxi	TMV-2	20	50	20	50
	Total			20	50	20	50

15.13 KSHAMTA : NIL

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

15.14 DFI : KVK has intervened with 110 families during the year 2020 among 133 families surveyed under DFI

SI	District	Taluks	Villages	Farmers (No.)	Average Benchmark Income (Rs./year)	Crops/ enterprises	KVK Interventions	Addition al Net Income generated due to KVK interventions (Rs/year)	Total income of farmer (Rs/ year)
1	Gadag	Gadag, Shirahatti, Naragund, Mundaragi and Shirol	Chikkasavanur, Shingatarayana keri and Gadag	110	71095	<p>Crops: Maize, Rabi Sorghum, Bt.Cotton, Groundnut, Greengram, White Onion, Chrysanthemum, Vegetables (Okra, Ridgegourd, Dolichos bean, Beans and Coriender)</p> <p>Enterprises: Dairy Nutri Garden</p>	<ul style="list-style-type: none"> • Maize+ Redgram intercropping system with ICM practices • Introduction of SPV-2217 variety in Rabi Sorghum • Bt.Cotton+ Greengram intercropping system with ICM practices • Introduction of DH-256 variety of Groundnut along with ICM practices • Introduction of DGGV-2 variety with ICM practices • Introduction of Arka Shweta and Arka Shubra white Onion varieties • ICM in Chrysanthemum • Demonstration of vegetable cafeteria (Introduction of improved varieties of Okra, Ridgegourd, Dolichos bean, Beans and Coriender • Nutrient 	149386	220481

SI	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)
							management in milch animals • Demonstration of nutri garden		

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
1	Groundnut • GPBD-4	- Early maturity - Two seeded pods - Resistant to rust and late leaf spot
2	• DGGV-2	• High yielding • Non shattering • Taller canopy • Suitable for mechanical harvesting
3	Vegetable crop cafeteria • Ridgegourd - Arka Prasan variety	• An early variety • Gives more yield • Low incidence of powdery mildew compared to local variety • Fruits are tender with good taste and cooking quality
	• Dolichos bean – Arka Amogh	• More yield, good marketability and consumer acceptability
	• Radish – Arka Nishant	• More yield, mild in pungency and attractive roots and foliage • Preferred by local market
	• Spinach – Arka Anupama	• More yield, thick and big leaves make large bunch & attractive green leaf colour and Good Shelf life
4	Onion • Bheema Super	• Bheema Super have good bulb weight with 26.80 % increase in the yield. Bulbs are attractive with light pink colour fetches Rs.200/- more per quintal compared to local variety Ballary Red.

16.2 Farmers feedback on performance of agronomic practices

Sl. No.	Agronomic practices	Farmer's feedback
1	Seed treatment of Trichoderma in Groundnut	Helps to reduce Root rot disease
2	Seed treatment with Biofertilizers like Rhizobium and PSB	Helps to reduce use of nitrogenous and phosphatic fertilizers
3	Use of pulse magic in Greengram	Foliar spray of Pulse magic in Greengram at flowering stage helped in healthy growth of plant without any deficiency symptoms besides increasing number of pods per plant. This practice resulted in higher grain yield.
4	Seed treatment with Rhizobium and PSB	Higher seedling vigor
5	Foliar spray of Pulse magic	Increased pod setting and higher yield
6	Adoption of border crop and trap crops in ByadagiChilli	<ul style="list-style-type: none"> Maize as border crop and Marigold as trap crop resulted in less incidence of sucking pest and fruit borer respectively
7	Use of Arka Vegetable Special at 40, 60 and 80 days after sowing in vegetables, Red Onion and Red Chilli	<p>Vegetables</p> <ul style="list-style-type: none"> Application of Arka Vegetable Special resulted in better crop growth without much micronutrient deficiency. Ridgegourd- Elongated fruits with no malformation Dolichos bean- Complete filling of grains Spinach - Less occurrence of Iron deficiency resulted in healthy and dark green leaves Radish – Less forking, bright white colour roots <p>Onion</p> <ul style="list-style-type: none"> Application of Arka Vegetable Special helped to get large and dark pink coloured bulbs <p>Chilli</p> <ul style="list-style-type: none"> Application of Arka Vegetable Special (Micronutrient mixture) resulted in better flower and fruit set and dark red coloured fruits
8	Crop diversification Introduction of Ajwain and Ashwagandha crops	<ul style="list-style-type: none"> These crops withstand vagaries of monsoon and grows well under residual soil moisture conditions compared to field crops. Ashwagandha crop has assured buyback system and green seeds of improved Ajwain variety fetches better market price. Therefore, crop diversification through introduction of these climate resilient crops are more profitable and sustainable than traditional crops during less rainfall years

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

Sl. No.	Pest and disease management in crops	Farmer's feedback
1	Groundnut	Collar rot and Leaf sport diseases were identified in groundnut crop. Integrated management practices like seed treatment with fungicides, crop rotation practices, summer ploughing and green manuring along with chemical management practices helped to reduce collar rot and leaf spot incidence in groundnut crop.
2	Greengram	Major pests like thrips, Aphids and Pod borer and incidence of disease like powdery mildew were noticed during cultivation. Adoption of Integrated crop management practices in demonstrated plots helped in reduction of pest and disease occurrence.
3	Seed treatment with <i>Trichoderma</i>	Low incidence of soil borne fungal diseases
4	Seed treatment with <i>Trichoderma viride</i> and Imidachloprid in ByadagiChilli	Helped to reduce seedling rot and incidence of sucking pests at early vegetative growth stage
5	Seed treatment with <i>Trichoderma viride</i> in onion	Helped to reduce seedling rot disease in main field
6	Pest and disease management in Byadagichilli crop	Timely management of Anthracnose, Murda complex disease lead to get 20% additional yield compared to local practices

16.4 Farmers feedback on performance of farm machinery technologies

Sl. No.	Farm machinery technologies	Farmer's feedback
1	i) Tractor operated Boom sprayer	Area coverage and efficacy of spray is good
	ii) Drone sprayer	Field capacity is better compared to other technologies and it results in saving of time and labour
	iii) Battery operated Onion detopper	Reduces drudgery of operation involved in manual detopping of Onions and also saves time of operation.

16.5 Farmers feedback on performance of livestock and fisheries technologies

Sl. No.	Livestock/fisheries technologies	Farmer's feedback
1	CB Cows	Feeding of green fodder enhances the milk yield and improves the health of the CB cows

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	-	-	-	-	-	-	-
With KVK	SBI	Gadag	0838	KHP KVK Hulkoti	10824829153	582002002	SBIN0000838

17B. Utilization of KVK funds during the year 2022-2023 (Up to 31stMarch 2023)

S.No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	20573000	20573000	20572955
2	Traveling allowances	195000	195000	195000
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	395000	395000	395000
B	POL, repair of vehicles, tractor and equipments	475000	475000	475000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	142000	142000	142000
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	30000	30000	30000
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	455000	455000	455000
F	On Farm Testing (on need based, location specific and newly generated information in the major production systems of the area)	145000	145000	145000
G	Integrated Farming System	0	0	0
H	Training of Extension Functionaries	25000	25000	25000
I	Extension activities	125000	125000	125000
J	Farmers' Field School	30000	30000	30000
K	EDP / Innovative activities	30000	30000	30000
L	Maintenance of buildings	150000	150000	150000
M	Establishment of Soil, Plant & Water Testing Laboratory and issue of Soil Health Cards	50000	50000	50000
N	Nutri Garden	25000	25000	25000
O	Library Maintenance	25000	25000	25000
TOTAL (A)		22870000	22870000	22869955
B. Non-Recurring Contingencies				
1	Works	0	0	0
2	Equipments including Furniture (IT)	300000	300000	300000
3	Vehicle (Four wheeler)	900000	900000	900000
4	SCSP Programme	270000	270000	270000
TOTAL (B)		1470000	1470000	1470000
C. REVOLVING FUND		0	0	0
GRAND TOTAL (A+B+C)		24340000	24340000	24339955

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 31st March of each year
April 2020 to March 2021	5.05	14.35	14.89	4.51
April 2021 to March 2022	4.51	21.71	19.83	6.39
April 2022 to March 2023	6.39	30.64	30.02	7.01

18. Details of HRD activities attended by KVK staff

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. L.G.Hiregoudar	Senior Scientist and Head	Pre-Action Plan meeting	UAS, Dharwad	11-12, April 2022
		Annual Review 2021-22 Cum Action Plan 2022-23 workshop	UAS, Dharwad	21-23, April 2022
Dr. Sudha V. Mankani	SMS (Home Science)	KVK National conference at Solan	Dr. V.S.Parmar University of Horticulture and forestry, Solan, Himachal Pradesh	1-2, June 2022
		Safflower oil processing - Value addition & marketing	UAS, Dharwad	1 December 2022
Mr. N.H.Bhandi	SMS (Soil Science)	National level workshop on Natural Farming	University of Agricultural Sciences, Gwalior, Madhya Pradesh	3 December 2022
		Training on Natural Farming	Gurukul, Kurukshetra, Haryana State	5-6 December 2022
		International conference on 'Reimagining Rainfed Agriculture' - Challenges & opportunities	CRIDA, Hyderabad	22-24, December 2022
		South Asia Drought Monitoring System (SADMS)	CRIDA, Hyderabad	9-10 March 2023
Mrs. Hemavati R.H.	SMS (Horticulture)	Good agricultural practices in Onion and Garlic production technology	ICAR-DOGR, Pune	3-7, May 2022
		Herbs in Nutraceuticals	ICAR-NIVEDI, Bengaluru	28 May 2022
		Training to FPO members by Center of Excellence, Bengaluru	Confederation of horticulture associations of India	28 July 2022
Dr. Vinayak Niranjana	SMS (Ag. Engineering)	Agricultural mechanisation in India - Challenges and perspectives	Online	04 April 2022
		Drone applications in Indian Agriculture	Online	08 April 2022

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
		Online webinar on promotion of Kisan drones, issues, challenges & way forward	Online	02 May 2022
		Natural farming for suitable agriculture	Extn. Education Institute, PJTSAU, Hyderabad	18-24, April 2022
		Workshop on creating multi-stake holder value chain for neglected and under utilised crops	Sahaja Samrudha, Dharwad & Swiss Aid	09 May 2022
		Workshop on Kharif crops of 2022-23 viz. Greengram and Soyabean	N.R.Deshpande, FPO, Mulgund	23 May 2022
		Promotion of agroforestry as climate risk mitigation	CSB, Bengaluru	25-26, May 2022
		International conference on 'Reimaging Rainfed Agriculture' - Challenges & opportunities	CRIDA, Hyderabad	22-24, December 2022

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

(i) EDP ON VALUE ADDITION AND MARKETING OF ETHNIC FOOD PRODUCTS

Ethnic foods and traditional foods are known for its taste and quality. Because of the consumer demand, many entrepreneurs and SHG groups are preparing the traditional foods. But they lack in marketing ventures, food license and attractive packing. To increase their marketability of ethnic products with food licensing the EDP on marketing of ethnic food products mainly Gulladaki Ladu was initiated.

Objectives:

- To imbibe EDP skills in marketing of Ethnic products
- To get an additional employment through preparation of Ethnic products
- To enhance the marketability and income of farm families

Activities conducted:

- Implemented EDP by taking two farmers from Hulkoti village of Gadag block
- 2 trainings on packing, labeling and marketing of Chili products
- Prepared labels and facilitated packing materials for marketing of Ethnic food products
- Facilitated the entrepreneurs in obtaining the FSSAI licence
- Facilitated in providing dough kneading machine and other small machineries
- Facilitated to participate in Exhibition & fairs for marketing of Ethnic products
- Initiated sales of Ethnic products through ASF's Organic Sales Unit, markets and petty shops

Name of the SHG member	Brand name	Village	Taluk	Date of initiation
Mrs. Shilpa Basavaraj Angadi	Shivaprasad GruhaUtpannagalu	Hulkoti	Gadag	March 2023
Mr. Muralidhar R. Odugoudar	Shri Sai Gayatri GruhaUtpannagalu	Hulkoti	Gadag	March 2023

Economics of Ethnic Food Products Enterprise

Particulars	Income					Expenditure		
	Name of the product	Year	Quantity produced	Rate (Rs.)	Total (Rs.)	Rawmaterials and other expenses (Rs.)	Total cost of production (Rs.)	Net Income (Rs.)
Mrs. Shilpa Basavaraj Angadi	Gulladaki Ladu	2023	90 Kg	600 / Kg	54000	350/Kg	31500	22500
	Groundnut Holige		1500 Nos.	10 / Piece	15000	7/Piece	10500	4500
	Sesame Holige		900 Nos.	14 / Piece	12600	10 / Piece	9000	3600
Total								30600
Mr. MuralidharR. Odugoudar	Gulladaki Ladu	2023	90 Kg	600 / Kg	54000	350 / Kg	31500	22500
	Wheat Sandige		20 Kg	300 / Kg	6000	50 / Kg	1000	5000
	Groundnut Ladu		20 Kg	350 / Kg	7000	250 / Kg	5000	2000
Total								29500

(ii) FFS : FODDER CULTIVATION**Fodder Crops:**

Forage crops (*Super Napier, Multicut Sorghum , Grazing guinea grass, Rhodes grass, Signal grass & fodder oats*)

Legume crops (*Lucerne seeds, Stylosanthes heamata, Stylo Scabra & Cow pea*)

Fodder trees (*Subabul & Susbenia grandiflora-Agathi*)

No. of sessions: 8

Village : Shagoti

Block : Gadag

No. of farmers: 25

Farming situation: Irrigated

Season : 2022-23

Sl. No.	Sessions Conducted	No. of Participants
1	AES with respect to fodder cultivation	25
2	Land preparation techniques for fodder cultivation	24
3	Characteristics of fodder seeds / root slips, sowing / planting technique	25
4	Nutrition management in fodder crops	23
5	Weed management and scheduling of irrigation	22
6	Fodder harvesting stages, chopping and feeding	24
7	Silage making and fodder enrichment	25
8	Field day	25



FFS sessions