

ICAR-KRISHI VIGYAN KENDRA, GADAG

ANNUAL REPORT –2023

(FOR THE PERIOD FROM 01 JANUARY, 2023 TO 31 DECEMBER 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. Sudha V. Mankani	-	9480552339	sudhavmankani@gmail.com

1.4. Year of sanction: 1985**1.5. Staff positions on 31 December 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	VACANT	Senior Scientist and Head								
2	Scientist/SMS	Dr. Sudha V. Mankani	Senior Scientist and Head(I/c) Subject Matter Specialist	F	Home Science	M.H.Sc, PhD	L-12	122900	26.06.1995	P	OBC
3	Scientist/SMS	Mr. N.H. Bhandi	Subject Matter Specialist	M	Soil Science	M.Sc (Agri)	L-11	98200	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	59500	11.10.2021	P	OBC
6	Scientist/SMS	VACANT	Subject Matter Specialist		Agronomy						
7	Scientist/SMS	VACANT	Subject Matter Specialist		Ag. Extension						

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)
8	Programme Assistant (Lab Tech.)	Dr. B.M. Murgod	Programme Assistant	M	Animal Science	B.V. Sc	L-7	62200	25.06.2007	P	OBC
9	Programme Assistant (Computer)	Mrs. Lalita S.Asuti	Computer Programmer	F	-	M.Sc (IT)	L-7	68000	01.06.2005	P	OBC
10	Programme Assistant/ Farm Manager	Mr. Suresh L. Halemani	Farm Manager	M	-	B.Sc (Agri.)	L-7	55200	01.02.2011	P	OBC
11	Assistant	Mr. M.B. Jakkanagudra	Assistant	M	-	M.Com	L-7	62200	25.06.2007	P	OBC
12	Jr. Stenographer	Mr. T.K. Sai Swaroop Rao	Jr. Stenographer	M	-	SSC & Certificate in Stenography	L-4	31400	15.12.2016	P	OBC
13	Driver - 2	Mr. G.D. Madivalar	Driver-Cum-Mechanic	M	-	7th Std.	L-4	42200	26.06.1995	P	OBC
14	Driver - 1	VACANT	Driver-Cum-Mechanic								
15	SS-2	Mrs. Savita V. Karadani	Field Assistant	F	-	PUC	L-1	19700	14.02.2020	P	OBC
16	SS-1	VACANT	Field Assistant								

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

S. No.	Item	Area (ha)
1	Under Buildings	1.9
2.	Under Demonstration Units	0.5
3.	Under Crops	12.0
4.	Orchard/Agro-forestry	13.6
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)	2023	9.00	5396	Good
Tractor	2003	5.00	13580 Hrs	Needs replacement
Motor cycle - I	2004	0.40	78532	Needs replacement
Motor cycle - II	2009	0.50	60050	Needs replacement

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
Motorised projection screen	2013	1	0.21	Good

Name of the equipment	Year of purchase	Quantity (No.)	Cost (Rs. in lakhs)	Present status
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
Rotary weeder	2009	1	0.84	Good

Name of the equipment/implement	Year of purchase	Quantity (No.)	Cost (Rs.)	Present status
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
06-12-2024	20	Introduce vegetable Soybean	These recommendations are included in the Action Plan of 2024-25	
		Document success stories and innovation of young farmers		
		Make impact study and collect feedback from farmers who have undergone training in KVK		
		Involve Rotary and Lion Clubs in educating young girls		
		Advised to write more number of articles, research papers and publications for the technologies assessed and demonstrated		
		Present income and expenditure statement of KVK Farm in next SAC Meeting		
		SMSs need to give more thrust to ODOP crop and takeup seed production of ByadagiChilli		
		Rain Water Harvesting structures for KVK buildings may be taken up based on availability of funds		
		Facilitate sharing of experience by successful FLD farmers in next SAC Meeting		
		Nominate farmers unrepresented so far for National level meetings/Awards		
		Study the "Keeping Quality" parameters of Arka Nikhita variety of Bhendi		
		Demonstration of drone sprayer maybe taken up		
		Take up Demonstration of DSb-21 variety of Soybean		
		Conduct trainings/Awareness programmes related to Seed treatment with Trichoderma, Trichogramma & PSB		
		Organize more number of programmes related to silage preparation and animal components to farmers in collaboration with Veterinary College, Gadag		
Collaborative programmes may be taken up with NABARD on promotion of Drone technology and value addition activities to FPOs				
		KVK needs to take help of NABARD for printing of Technical Bulletiins / Leaflets etc.		
		Include DSAF variety of Safflower crop released by UAS, Dharwad under FLD		

Date	Number of Participants	Salient Recommendations	Action taken	Remarks, if any
		Demonstrate spraying of "Pulse Booster" (UAS, Dharwad product) in pulse crops		
		Promote minor fruit crops under dryland horticulture and also along the bunds as border crops		
		Conduct Awareness programmes on treatment of intestinal nematode infections (Gastrointestinal parasites) in collaboration with Veterinary College, Gadag		
		Organize more number of awareness programmes for farmers on Natural Farming, Organic Farming and Integrated Farming Systems for getting sustained income		

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 Shirahattian 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	
January, 2023	0.0	30.56	15.49	61.60
February, 2023	0.0	34.50	17.27	42.60
March, 2023	0.7	37.37	21.41	37.13
April, 2023	23.2	37.42	23.95	47.65
May, 2023	40.4	33.88	22.65	70.00
June, 2023	41.0	29.38	21.88	81.34
July, 2023	124	27.13	21.53	88.21
August, 2023	32	27.18	21.03	88.71
September, 2023	89	27.91	20.78	87.02
October, 2023	6.0	26.80	19.07	85.85
November, 2023	43.0	26.64	17.26	85.67
December, 2023	1.0	29.00	19.00	82.86

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"> • 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
				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
				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

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"> • 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 • 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 	<ul style="list-style-type: none"> • FLD on ICM in Chilli crop • FLD on drying of Redchillies in

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"> 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"> 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 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

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"> • 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
				Organic input production	Lack of awareness on importance of organic inputs among farm women	<ul style="list-style-type: none"> • Training • 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
				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 • Supply of literature • Field Day
				Rabi Sorghum	• Low productivity due to use of local variety	• FLD on ICM practices in Rabi Sorghum

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"> • Incidence of shoot fly and stem borer • Incidence of smut diseases • Problem of lodging in existing variety 	<ul style="list-style-type: none"> • 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 • Imbalanced nutrition without soil testing • Low keeping quality bulbs in existing variety 	<ul style="list-style-type: none"> • FLD on introduction of Bhima Super variety along with ICM practices • Trainings on ICM in onion crop • Demonstration of battery operated detopper

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"> • 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"> • 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 • Training on healthy foods for healthy life • Training on importance of millets in diet • 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
				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
				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

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
				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
				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

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
				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 • 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

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
				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
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 	<ul style="list-style-type: none"> • FLD on ICM practices in Greengram • Training on ICM practices in Greengram

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
					Virus and Leaf spot	<ul style="list-style-type: none"> • 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
				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

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
				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
				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	Less consumption of millets, fruits and vegetables in daily	<ul style="list-style-type: none"> • FLD on Nutri Garden • Training on health 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
					diet	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
				Dicoccum wheat	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	Conservation agriculture practice for higher productivity in Chickpea
3	Promotion of DBGV-204, NBeG-49 and Phule Vikram varieties of Bengalgram under protective irrigation
4	Promotion of SPV-2217 variety of Rabi Sorghum
5	Assessment of different Safflower varieties for higher productivity
6	Demonstration of different varieties in vegetables, medicinal and aromatic crops
7	Promotion of nutri-farms
8	Popularisation of drudgery reduction equipments
9	Post harvest technologies
10	Livestock nutrition for higher milk productivity

3.B1. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of live-stock (No.)	Supply of bio products	
													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	Post harvest technology	Maize	Drudgery of operation involved in manual cob harvesting		Demonstration of self propelled Maize harvester	3	-	-	4	-	-	-	-	-
3	Varietal Assessment	Bengalgram	Productivity of JAKI-9218 variety is low under irrigated condition	Assessment of potential productivity of DBGV-204, NBeG-49 and Phule Vikram varieties	-	4	-	-	5	4.0	-	-	-	1.5
4	Conservation agriculture practice	Bengalgram	Non profitability due to moisture stress, deterioration of soil physical	Assessment of conservation agriculture practice for higher productivity	-	3	-	1	8	0.9	-	-	-	-

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
			properties due to repeated use of machineries especially Rotavators& reduced water application efficiency	in Chickpea preceded with Maize crop										
5	ICM	Bengalgram	Low yield in existing local varieties	-	Demonstration of JAKI-9218 variety of Bengalgram crop	4	-	-	7	0.5	-	-	-	65
6	Low Productivity	Bengalgram	Low productivity due to moisture stress	-	Demonstration of tractor operated bund former in Bengalgram crop	2	-	-	5	-	-	-	-	-
7	Drudgery reduction	Bengalgram	High labour and time consumption in hand nipping method	-	Demonstration of solar nipping machine in Bengalgram crop	3	-	-	8	-	-	-	-	-

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
8	Varietal assessment	Safflower	Low productivity due to cultivation of local variety	Assessment of different Safflower varieties for higher productivity	-	2	-	-	5	0.63	-	-	-	-
9	ICM	Safflower	Low productivity due to cultivation of local variety	-	Demonstration of ICM practices in high yielding ISF-764 variety of Safflower	3	-	-	4	0.86	-	-	-	-
10	Farm Machinaries	Summer Groundnut	a. Drudgery involved in manual harvesting b. Higher percentage of pod damage in digging by tractor drawn blade harrow c. Soil adhering to the pods after harvesting	Assessment of Mechanical Harvesting of Summer Groundnut for Higher Productivity	-	02	-	-	01	-	-	-	-	-

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
			requires beating by hands to separate the soil											
11	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	9	-	-	18	0.12	-	-	-	-
12	Farm machinaries and drudgery reduction	Onion	Drudgery of operation in manual detopping of harvested onions		Demonstration of Battery operated Onion Detopper (Under Demonstration of ICM practices in Red onion variety Bhima Super)	06	-	-	10	-	-	-	-	-
13	Varietal Assessment	Okra	Existing hybrids are low yielding and resulting in	Assessment of Okra Hybrids for higher productivity	-	4	-	-	10	0.06	-	-	-	-

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	
			low income												
14	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: Ridgeward seeds (Arka Prasana variety), 0.4Qtls: Dolichos bean seeds(Arka Amogh variety), 0.03Qtls:Spinach seeds (Arka Anupam variety)& 0.01Qtls: Radishseeds(Arka Nishant variety)	-	-	-	-	
15		Ashwagandha	Non profitability in existing cropping pattern due to vagaries of Monsoon and lack of crop diversification	-	Introduction of Ashwagandha crop	3	-	-	5	0.4	-	-	-	-	

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions										
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of live-stock (No.)	Supply of bio products	
													No.	Kg
			on in field crops resulting in income insecurity to the farmers											
16		Ajwain	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 Ajwain crop	2	-	-	3	0.1	-	-	-	-
17	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

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	
18	Post harvest technology	Solar Dryer	Unhygienic way of drying of Red Chillies	-	Demonstration of Solar Dryer	2	-	-	5	-	-	-	-	-	-
19	Grain storage	Super grain bags	Incidence of stored pest	-	Demonstration of Super grain bags	1	-	-	1	-	-	-	-	-	-
20	Nutrition Management in dairy animals	Fodder production	Low productivity of milk in CB cow due to Non-cultivation of perennial fodder and grass species	-	Demonstration of Fodder Production	1	12	2	15	1.05	40931	-	-	-	-

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	Demonstration of self propelled Maize harvester	Kissan Kraft	Maize	-	3	3	4

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Extension activities)
3	Assessment of potential productivity of DBGV-204, NBeG-49 and Phule Vikram varieties	UAS, Dharwad PJTSAU, Hyderabad	Bengalgram	5	-	4	5
4	Assessment of conservation agriculture practice for higher productivity in Chickpea preceded with Maize crop	PAU, Ludhiana	Bengalgram	3	-	3	1
5	Demonstration of JAKI-9218 variety of Bengalgram crop	UAS, Dharwad	Bengalgram		25	4	7
6	Demonstration of tractor operated bund former in Bengalgram crop	UAS, Raichur	Bengalgram	-	10	2	5
7	Demonstration of solar nipping machine in Bengalgram crop	UAS, Raichur	Bengalgram	-	10	3	8
8	Assessment of different Safflower varieties for higher productivity under rainfed condition	ICAR-IIOR, Hyderabad & UAS, Dharwad	Safflower	5	-	2	5
9	Demonstration of ICM practices in high yielding ISF-764 variety of Safflower	ICAR-IIOR, Hyderabad	Safflower	-	25	2	5
10	Assessment of mechanical harvesting of Summer Groundnut for higher productivity	TNAU, Coimbatore	Groundnut	1	-	2	2
11	ICM in Red onion variety Bheema Super	UHS Bagalkot and ICAR- DOGR, Pune	Red Onion	-	12	9	18
12	Demonstration of battery operated Onion detopper (Under demonstration of ICM practices in Red Onion)	UAS, Raichur	Onion	-	1	6	10
13	Assessment of Okra Hybrids for higher productivity	ICAR-IIHR, Bengaluru	Okra	3	-	4	10
14	ICM in Vegetable Crop Cafeteria	ICAR-IIHR, Bengaluru	Vegetable crops	-	10	5	10
15	Introduction of Ashwagandha crop	CSIR-CIMAP, Lucknow, UP	Ashwagandha	-	10	3	5
16	Introduction of Ajwain crop	ICAR-NRC on seeds spices, Ajmer, Rajasthan	Ajwain	-	5	2	3

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Extension activities)
17	Nutrition Garden	UAS, Bengaluru	Health and nutritional security	-	25	14	15
18	Solar dryer	Rudra solar drier	Chilli	-	3	2	5
19	Super grain bags	UAS, Raichur	Grain storage	-	40	4	6
20	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
Demonstration of self propelled Maize harvester	0	0	0	0	3	0	0	0	60	20	8	2	65	21	6	4
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

	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 tractor operated bund former in Bengalgram crop	0	0	0	0	9	0	1	0	41	19	4	3	42	22	5	4
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 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
Assessment of mechanical harvesting of Summer Groundnut for Higher productivity	3	0	0	0	0	0	0	0	36	10	6	4	45	15	8	4
ICM in Red onion variety Bheema Super	0	0	0	0	10	0	2	0	117	11	32	4	187	45	11	10
Demonstration of Battery operated Onion detopper	0	0	0	0	1	0	0	0	75	21	7	8	165	10	5	6
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

	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
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
Supe grain bags	0	0	0	0	2	10	4	4	12	34	2	4	0	35	0	6
Demonstration of Fodder production	0	0	0	0	10	0	0	0	227	45	20	15	92	54	25	17

PART IV - On Farm Trial

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	Spices/Medicinal crops	TOTAL
Integrated Nutrient Management											
Varietal Evaluation		1	1		1						3
Integrated Pest Management											
Integrated Crop Management											
Integrated Disease Management											
Small Scale Income Generation Enterprises											
Weed Management											
Resource Conservation Technology		1									1
Farm Machineries		1									1
Integrated Farming System											
Seed / Plant production											
Value addition											
Drudgery Reduction											
Storage Technique											
Mushroom cultivation											
Total		3	1		1						5

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 : 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 : 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 technologies	No. of Technological options tested in each OFT	No. of trials	Number of farmers / locations	Area in ha (Per trial covering all the Technological Options in a farm)
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)
Integrated Pest Management						
Integrated Crop Management						
Integrated Disease Management						
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	Summer Groundnut	Assessment of mechanical harvesting of Summer Groundnut for higher productivity	3		3	1.2 (0.4 ha/trial)

Thematic areas	Crop	Name of the technologies	No. of Technological options tested in each OFT	No. of trials	Number of farmers / locations	Area in ha (Per trial covering all the Technological Options in a farm)
Integrated Farming System						
Seed / Plant production						
Value addition						
Drudgery Reduction						
Storage Technique						
Mushroom cultivation						
Total			19		19	

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

Thematic areas	Crop	Name of the technologies	No. of Technological options tested in each OFT	No. of trials	Number of farmers / locations	Area in ha (Per trial covering all the Technological Options in farm)
Integrated Nutrient Management						
Varietal Evaluation						
Integrated Pest Management						
Integrated Crop Management						
Integrated Disease Management						
Small Scale Income Generation Enterprises						

Thematic areas	Crop	Name of the technologies	No. of Technological options tested in each OFT	No. of trials	Number of farmers / locations	Area in ha (Per trial covering all the Technological Options in farm)
Weed Management						
Resource Conservation Technology						
Farm Machineries						
Integrated Farming System						
Seed / Plant production						
Value addition						
Drudgery Reduction						
Storage Technique						
Mushroom cultivation						
Cropping Systems						
Farm Mechanisation						
Others, Pl. Specify						
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				
Processing and Value addition				
Production and management				

Feed and fodder management				
Small scale income generating enterprises				
Others, pl. specify				
Total				

4.B.4. Technologies Refined under Livestock and other enterprises : 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				
Processing and Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Others, pl. specify				
Total				

4.B.5. Technologies assessed under various enterprises by KVKs

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

Sl.	Thematic areas	Name of the enterprise	Name of technology(s)	No. of Technological options tested in each OFT	No. of trials	No. of locations
9	Organic farming					
10	Agroforestry management					
11	Mechanization	Assessment of mechanical harvesting of Summer Groundnut for higher productivity	<ul style="list-style-type: none"> Harvesting of Groundnut crop by Tractor Drawn Blade Harrow Harvesting of Groundnut crop by Tractor Operated Groundnut Digger cum Elevator 	2	3	
12	Resource conservation technology	Assessment of conservation agriculture practice for higher productivity	<ul style="list-style-type: none"> Direct sowing of chickpea in standing stubbles after combined harvester operation (Previous crop: Maize) Direct sowing of chickpea in cut and spread Maize crop residue resulted through harvesting by single row self propelled Maize harvester (Previous crop: Maize) 	2	3	
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 Technological options tested in each OFT	No. of trials	No. of locations
1	Drudgery Reduction					
2	Entrepreneurship Development					
3	Health and Nutrition					

	Thematic areas	Name of enterprise	Name of technology(s)	No. of Technological options tested in each OFT	No. of trials	No. of locations
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 (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 especially 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** : Both NBeG-49 and Phule Vikram varieties have performed very well. Farmers found both these varieties very useful in getting higher productivity and net returns

(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 (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 as building up of organic carbon takes time.
- Incidence of weeds and mites are the major constraints.

(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 (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:** Nil

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

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. Hence farmers found ISF-764 variety as very useful in enhancing their net returns.

(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	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
Summer Groundnut	Protected Irrigation	a. Drudgery involved in manual harvesting b. Higher percentage of pod damage in digging by tractor drawn blade harrow c. Soil adhering to the pods after harvesting requires beating by hands to separate the soil	Assessment of Mechanical Harvesting of Summer Groundnut for Higher Productivity	03	T.O.1 (Farmers practice): Harvesting of Groundnut crop by manual labour	-	25.60	q/ha	i. Digging Efficiency (%) = 95.70 ii. Pod damage (%) = 0.40 iii. Area coverage (ha/h)=0.05 iv. Saving in labour (%) = - v. Saving in Cost of Operation (%) = -	115200	68700	2.47
					T.O.2: Harvesting of Groundnut crop by Tractor Drawn Blade Harrow	UAS, Raichur	24.70	q/ha	i. Digging Efficiency (%) = 84.61 ii. Pod damage (%) = 3.20 iii. Area coverage (ha/h)=0.26 iv. Saving in labour (%) = 65 v. Saving in Cost of Operation (%) = 13.34	111150	68050	2.58
					T.O.3: Harvesting of Groundnut crop by Tractor Operated Groundnut Digger cum Elevator	TNAU, Coimbatore	26.20	q/ha	i. Digging Efficiency (%) = 93.00 ii. Pod damage (%) = 0.70 iii. Area coverage (ha/h)=0.38 iv. Saving in labour (%) = 85 v. Saving in Cost of Operation (%) = 50	117900	76600	2.85

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 Mechanical Harvesting of Summer Groundnut for Higher Productivity	a. Use of mechanical harvesters reduces the cost and time of operation. b. Use of blade harrow for digging groundnut pods tends to damage the pods c. Tractor operated groundnut digger cum elevator reduced the labour requirement as it windrows the harvested pods in single row. Thereby making it easy for collection.	Lack of technical knowledge to farmers regarding the operation and high initial cost of groundnut digger cum elevator

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

1. Title of Technology Assessed: Assessment of Mechanical Harvesting of Summer Groundnut for Higher Productivity
2. Performance of the Technology on specific indicators

Technology Assessed	Performance indicators							
	Grain Yield (q/ha)	Net Returns (Rs./ha)	B.C. Ratio	Digging Efficiency (%)	Pod damage (%)	Area coverage (ha/h)	Labour Saving (%)	Cost Saving (%)
Farmer's practice: Harvesting of Groundnut crop by manual labour	25.60	68700	2.47	95.70	0.40	0.05	-	-
Alternate practice-1: Harvesting of Groundnut crop by Tractor Drawn Blade Harrow	24.70	68050	2.58	84.61	3.20	0.26	65	13.34
Alternate practice-2: Harvesting of Groundnut crop by Tractor Operated Groundnut Digger cum Elevator	26.20	76600	2.85	93.00	0.70	0.38	85	50

3. Specific Feedback from farmers: Mechanical harvesting method reduces the drudgery of operation and cost of operation involved in manual harvesting methods
4. Specific Feedback from Extension personnel and other stakeholders: Tractor operated groundnut digger cum elevator performed better for harvesting of bunchy groundnut crop
5. Feedback to Research System based on results and feedback received: There is need to develop a conveying attachment for harvested pods.
6. Feedback on usefulness and constraints of technology
 - Tractor drawn blade harrow is useful in digging groundnut pods cultivated in red soils. But it tends to damage the pods in deep black soils
 - Tractor operated groundnut digger cum elevator worked satisfactorily in both red and deep black soils

(V) 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	Qt/ha	9.95	214444	112720	2.11
					T.O.2 Assessment of CoBH-4 Okra Hybrids	TNAU, Tamilnadu	143.21	Qt/ha	10.86	243457	139104	2.33
					T.O.3 Assessment of Arka Nikita Okra Hybrids	ICAR-IIHR, Bengaluru	149.14	Qt/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** : Nil
5. **Feedback to Research System based on results and feedback received** : Nil
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.

4.D1. Results of Technologies Refined : NIL

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Refined	Source of technology	Yield	Unit of yield	Observations other than yield	Gross Return Rs./unit	Net Return Rs. / unit	BC Ratio
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	Farmin g Situatio n	Seaso n	Crop	Variety/ breed	Hybri d	Thematic area	Technology Demonstrate d	Area (ha)		Farmers (No.)		Farmers (No.)	
									Propose d	Actua l	SC/S T	Other s	Small/ Margin al	Oth e rs
	Oilseeds	Rainfed	Rabi	Safflower	ISF-764	-	Varietal demonstratio n	Demonstratio n of high yielding ISF- 764 variety of Safflower	10	10	2	23	23	2
	Pulses													
2		Rainfed	Rabi	Bengalgram	JAKI-9218	-	ICM practices	Demonstratio n of ICM practices in JAKI-9218 variety of Bengalgram crop	10	10	2	23	20	5
3		Rainfd	Rabi	Bengalgram	-	-	Farm Machineries	Demonstratio n of tractor operated compartment bund former in Bengalgram crop	4	4	1	9	9	1
4		Rainfed	Rabi	Bengalgram	-	-	Farm Machinaries	Demonstratio n of solar nipping machine in Bengalgram crop	-	-	2	8	8	2
	Cereals													
5		Rainfed	Rabi	Rabi Sorghum	SPV- 2217	-	Varietal demonstratio n	Demonstratio n of SPV- 2217	16	16	3	37	38	2
6														
8		Rainfed	Kharif	Maize	-	-	Farm	Demonstratio	1.2	1.2	0	3	2	1

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	
10													
11													
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 2023	Red Onion	Bheema Super	-	ICM practices	Demonstration of Bheema Super variety in Red Onion	Kharif 2023	L	L	M	Chickpea
	Flowers												
	Ornamental												
	Fruit												
14	Spices and condiments												
15		Rainfed	Rabi 2022	Ajwain	Ajmer Ajwain-1	-	Varietal introduction	Introduction of Ajwain crop	Rabi 2022	L	L	M	Chickpea
	Commercial												
16	Medicinal and aromatic	Ashwagan dha	Rabi 2022	Ashwagan dha	Poshita	-	Varietal introduction	Introduction of Ashwagandha crop	Rabi 2022	L	L	M	Rabi Sorghum
17	Fodder	Irrigated	Kharif 2022	Perennial Fodder crops	Hybrid Napier-DHN 6, Multicut Jowar-VH-988, Guinea grass,	-	Nutrition Management in dairy animals	Demonstration on Fodder Production	Kharif 2022	L	L	M	Maize

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								
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
Millets																	
Vegetables:	Introduction of new varieties of ICAR-IIHR Bengaluru under Vegetable Crop Cafeteria	Ridgegourd: Arka Prasanna	-	Irrigated	10	4	27.62	20.72	23.92	18.92	26.42	265635	196000	3.81	212048	147338	3.28
Dolichos bean: Arka Amogh		23.75					19.37	21.50	17.90	20.11							
Radish : Arka Nishant		69.00					53.12	61.12	47.50	28.67							
Spinach: 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								
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 i.e Bengalgram and Rabi Sorghum respectively.

1) 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

2) 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)	124.2	105.6
Thrips incidence (Nos./Plant)	0.48	1.52

3) 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

4) 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	-

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 SPV-2217 variety in Rabi Sorghum	Variety is comparatively lodging resistant besides having higher productivity	-
Demonstration of vegetable crop cafeteria	Ridgegourd - Arka Prasan variety <ul style="list-style-type: none"> An early variety, 	-

Feedback on IFS technologies demonstrated

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

5.B.3. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Name of the parameter with unit	Yield (kg/animal)			% Increase	*Economics of demonstration Rs./unit)			*Economics of check (Rs./unit)			
						Demo		Check if any		Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR	
						H	L									A
Dairy	Demonstration on Fodder Production & feeding to cows for higher milk productivity	CB Cows	10	10		12	5.5	6.7	5.2	27.61	54270	28366	2.09	42525	17507	1.69
Poultry																
Rabbitry																
Pigerry																
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.)

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														
Sericulture																
Apiculture																
Others (pl. specify)																
Nutrition & Health	Demonstration of Nutri Garden	-	25	3439.78Sq.mts	<ul style="list-style-type: none"> Amount spent towards purchase of vegetables/year Percentage adequacy of vegetables Availability of leafy vegetables, other vegetables and roots and tubers per day/ member 	-	-	-	-	-	134960	82460	2.47	-	-	-

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	-

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 (Dec-Jan)	21°C to 32°C (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			
Parameter with unit	Greengram (20 Demo)		Bengalgram (20 Demo)
	Demo	Local	
No. of live insects / Kg (Nos.)	0	5.65	Results are awaited
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><u>Useful characters :</u></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><u>Constraints :</u></p> <ul style="list-style-type: none"> • Water problem • Management of pest and diseases 	<p><u>Socio-economic constraints</u></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><u>Administrative constraints</u></p> <ul style="list-style-type: none"> • Nil
Solar drier	<p><u>Useful characters :</u></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><u>Constraints :</u></p> <ul style="list-style-type: none"> • Not suitable for big farmers • Susceptable to damage during transportation of Solar drier 	<p><u>Socio-economic constraints</u></p> <ul style="list-style-type: none"> • Damage to solar drier during drying due to monkeys and cattles • Machine is costly • Durability of drier is less. Problem of damage of solar panel. <p><u>Administrative constraints</u></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 purchase of solar drier
Grain storage	<p><u>Useful characters :</u></p> <ul style="list-style-type: none"> • Storage is easy • No pest incidence 	<p><u>Socio-economic constraints</u></p> <ul style="list-style-type: none"> • Cost is more

5.B.9. Farm implements and machinery

Name of the implement	Cost of the implement in Rs.	Name of the technology demonstrated	No. of Demo	Area covered under demo in ha	Name of the operation with unit	Labour requirement in Mandays		% save	Savings in labour (Rs./ha)	*Economics of demonstration (Rs./ha)			*Economics of check (Rs./ha)		
						Demo	Check			Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
Compartment bund former	55000	Tractor operated compartmental bund former	10	4	Compartmental Bunding	0.34	1.67	79.64	335	71238	49138	3.22	67416	44416	2.93
Solar nipping machine	10500	Solar nipping machine in Chickpea	10	4	Nipping	1.4	5	72	2100	92300	68800	3.92	83250	60750	3.70
Self propelled Maize harvester	110000	Self propelled single row Maize harvester	3	1.2	Maize Harvesting	2.4	9	73.3	2100	61760	41760	3.08	56320	33820	2.50
Battery Operated Onion Detopper	3500	Battery Operated Onion Detopper	10	4	Onion Detopping	69	100	31	-						

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

** BCR= GROSS RETURN/GROSS COST

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

Demonstration of Tractor Operated Compartmental Bund Former for in-situ Moisture Conservation

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Average Soil Moisture content (% d.b)	29.83	20.56
Area coverage (ha/h)	0.36	-

Demonstration Solar Nipping Machine in Chickpea

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check
Number of pods per plant	62	53
Number of branches per plant	21	16

Demonstration of Self Propelled Maize Harvester

Data on other parameters in relation to technology demonstrated			
Parameter with unit	Demo	Check	
Area coverage (ha/h)	0.07	0.06	
Labour requirement (man hours/ha)	2.4	9	
Saving in Time (%)	90.46	-	

Demonstration of Battery Operated Onion Detopper

Data on other parameters in relation to technology demonstrated			
Parameter with unit	Demo	Check	
Rate of detopping (kg/h)	175	120	
Labour requirement (man hours/tonne)	11.50	16.66	
Saving in Time (%)	39	-	

5. B10. Feedback on farm implements demonstrated

Name of farm implement demonstrated	Useful characters as well as constraints of technology	Socio-economic as well as administrative constraints for its adoption
Tractor operated compartmental bund former	<ul style="list-style-type: none"> •Compartmental Bunding helps in conservation of soil moisture for getting better yield. •Can be used for rain water harvesting during kharif and rabi seasons. 	<ul style="list-style-type: none"> •Lack of awareness in farmers towards benefits of in-situ moisture conservation technologies. •Tractor operated compartmental bund former is single operation equipment. Hence farmers are reluctant in investing on purchase of the equipment.
Solar nipping machine	<ul style="list-style-type: none"> •Solar nipping machine works effectively for nipping of chickpea. •There is no need of special skills to operate this machine 	<ul style="list-style-type: none"> •Lack of interest in farmers towards nipping operation in chickpea
Self propelled Maize harvester	<ul style="list-style-type: none"> •Self propelled maize harvester is well suited for harvesting of maize in small and marginal farms 	<ul style="list-style-type: none"> •Adoption of combine harvester machine, even by small and marginal farmers hinders the scope for spread of this technology. •There is a need of skilled operator to operate this machine effectively
Battery Operated Onion Detopper	<ul style="list-style-type: none"> •Battery operated Onion Detopper resulted in reduction of drudgery involved in manual detopping method. •There was significant saving in labour requirement and time of operation. 	<ul style="list-style-type: none"> •Since the detopping of onion is done mostly by the women labour, the ergonomical design of machine maybe improved.

5.B.11.Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	10	469	-
2	Farmers Training	62	1793	-
3	Media coverage	12	-	-
4	Training for extension functionaries	9	364	-
5	Others (Please specify)			

Type of Breed	Name of the technology demonstrated	Name of the hybrid	No. of Demo	Area (ha)	Yield (q/ha)		% Increase	*Economics of demonstration (Rs./ha)			*Economics of check (Rs./ha)		
					Demo	Check		Gross Return	Net Return	** BCR	Gross Return	Net Return	** BCR
Total													
Cucumber													
Tomato													
Brinjal													
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
Plant propagation techniques										
Others (pl.specify)										
Integrated Horticulture System										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology	4	15	0	15	117	13	130	132	13	145
Processing and value addition	3	20	5	25	97	16	113	117	21	138
Others (pl.specify)										
Strategies for management of physiological disorders in coconut palms	1	0	0	0	35	0	35	35	0	35
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology in Ashwagandha crop										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management	2	46	3	49	7	0	7	53	3	56
Integrated water management	1	26	3	29	8	0	8	34	3	37
Integrated nutrient management										
Production and use of	4	85	62	147	0	17	17	85	79	164

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
organic inputs										
Management of Problematic soils	1	62	0	62	0	0	0	62	0	62
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	1	15	1	16	0	0	0	15	1	16
Animal Disease Management	1	0	18	18	0	0	0	0	18	18
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	6	10	118	128	7	35	42	17	153	170
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet	2	10	29	39	7	10	17	17	39	56
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	4	25	118	143	4	29	33	29	147	176
Women empowerment	3	0	79	79	0	21	21	0	100	100
Location specific drudgery production										
Rural Crafts										
Women and child care										
Others (pl.specify)										
EDP for women	2	0	62	62	2	15	17	2	77	79
Personal hygiene, nutrition	1	0	5	5	0	28	28	0	33	33

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production	1	30	0	30	0	0	0	30	0	30
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	1	20	4	24	4	0	4	24	4	28
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	2	43	7	50	13	2	15	56	9	65
Others (Pl. specify)										
TOTAL	77	1251	753	2004	606	238	844	1857	991	2747

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										
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	38	615	533	1148	132	209	341	764	742	1506

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching	1	0	29	29	0	6	6	0	35	35
Rural Crafts										
Production of quality animal products										
Dairying	5	58	10	68	21	11	32	79	21	100
Sheep and goat rearing	8	86	50	136	39	7	46	125	57	182
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	5	5	10	2	3	5	7	8	15
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	15	149	94	243	62	27	89	211	121	332

7.D. Training for Rural Youths including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
ICT in agriculture	1	10	20	30	3	2	5	13	22	35
TOTAL	1	10	20	30	3	2	5	13	22	35

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	74	36	110	0	0	0	74	36	110
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs	1	25	0	25	5	0	5	30	0	30
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	5	20	152	172	0	32	32	20	184	204
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals	2	0	0	0	44	14	58	44	14	58
Livestock feed and fodder production	2	30	12	42	20	9	29	50	21	71
Household food security	3	29	62	91	0	28	28	29	90	119
Any other (pl.specify)										
Value addition	1	0	35	35	0	10	10	0	45	45
Health, nutrition and millet nutrition	2	3	66	69	2	9	11	5	75	80
Soil testing	1	33	3	36	4	0	4	37	3	40
Total	19	214	366	580	75	102	177	289	468	757

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	2	0	58	58	0	30	30	0	88	88
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										
Women empowerment										
Total	2	0	58	58	0	30	30	0	88	88

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	2	6	44	50	0	0	0	6	44	50
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	2	116	0	116	0	0	0	116	0	116
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	0	23	23	0	7	7	0	30	30
7.b.	Others (pl.specify)										
	Storage loss minimization techniques										
8	Farm machinery										
8.a.	Farm machinery, tools and implements	7	112	59	171	41	8	49	153	67	220
8.b.	Others (pl.specify)										
9.	Livestock and fisheries										
10	Livestock production and management										
10.a.	Animal Nutrition Management										
10.b.	Animal Disease Management	1	0	18	18	0	7	7	0	25	25
10.c.	Fisheries Nutrition										
10.d.	Fisheries Management										
10.e.	Others (pl.specify)										
	Scientific dairy management	4	48	10	58	16	11	27	64	21	85
	Poultry management	1	5	5	10	2	3	5	7	8	15
	Scientific management of sheep & goat	7	97	47	144	36	8	44	133	55	188
	Management in farm animals	4	30	12	42	64	23	87	94	35	129
11.	Home Science										
11.a.	Household nutritional security	1	0	32	32	0	8	8	0	40	40
11.b.	Economic empowerment of women	3	0	71	71	2	16	18	2	87	89
11.c.	Drudgery reduction of women										
11.d.	Others (pl.specify)										
	Personal hygiene, nutrition & pipe composting	1	0	5	5	0	28	28	0	33	33

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	333	124	457	102	35	137	25	21	46
Kisan Mela	1	100	50	150	18	12	30	0	4	4
Kisan Ghosthi	2	83	472	555	12	48	60	24	6	30
Exhibition	9	11351	7803	19154	900	873	1773	32	16	48
Film Show	24	408	345	753	120	154	274	10	8	18
Method Demonstrations	9	141	24	165	33	27	60	2	31	33
Farmers Seminar	5	322	195	517	146	54	200	16	11	27
Workshop	8	688	1414	2102	157	152	309	45	12	57
Group meetings	6	139	16	155	127	16	143	5	3	8
Lectures delivered as resource persons	9	216	160	376	33	22	55	57	28	85
Advisory Services	50	85	15	100	5	0	5	8	6	14
Scientific visit to farmers field	53	366	36	402	8	5	13	12	15	27
Farmers visit to KVK	146	181	82	263	12	8	20	50	13	63
Diagnostic visits	8	30	8	38	3	0	3	2	1	3
Exposure visits	2	47	3	50	0	0	0	0	0	0
Soil health Camp	4	124	30	154	82	10	92	2	0	2
Animal Health Camp	1	45	5	50	4	1	5	2	0	2
Soil test campaigns										
Celebration of important days (specify)										
International Women's Day	1	5	51	56	0	5	5	2	3	5
World food day	1	40	25	65	50	0	50	2	2	4
World soil day	1	68	60	128	10	12	22	6	4	10
Kisan Diwas	1	65	45	110	8	6	14	5	3	8
Mahila Kisan Diwas	1	0	75	75	0	25	25	3	4	7
World environment day	1	50	30	80	10	5	15	2	0	2
World water day	1	59	52	111	16	8	24	2	2	4
World milk day	1	32	15	47	4	2	6	0	2	2
Parthenium awareness programme	2	54	0	54	4	0	4	0	0	0
Special day celebrations										
Poshan vatika Maha Abhiyan & tree	1	11	16	27	6	4	10	3	2	5

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
plantation										
Viksit Bharat Sankalp Yatra	65	4200	2200	6400	0	0	0	35	30	65
Total	425	19243	13351	32594	1870	1484	3354	352	227	579

8.2 Other extension activities like print and electronic media etc.

Sl. No.	Type of media/activity	Number of activities/Number
1	Popular articles	4
2	Newspaper coverage	14
3	Extension Literature	5
4	Radio Talks	35
5	TV Talks	0
6	CD/DVD/Video clips	5
7	Animal health camps (no. of animal treated)	1 (45)
8	Others, please specify	
	Total	64

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS**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	2.85	27300	95
	Foxtailmillet	H-46	0.18	2700	6
		DHFt-109-1	0.30	4500	10
	Pearlmillet	VPMV-9	0.50	7500	10
Oilseeds	Groundnut	DH-256	6.72	55560	11
	Safflower	ISF-764	1.4	14050	30
		A-2020	2.28	22850	15
		DASF-1	0.25	2550	9
Pulses	Bengalgram	JAKI-9218	8.90	88000	43
	Bengalgram	Phule Vikram	1.0	10000	5
	Bengalgram	NBEG-49	1.0	10000	5
	Bengalgram	DBGV-204	1.0	10000	5
	Greengram	DGGV-2	26.71	207580	179
	Redgram	TS-3R	1.20	18000	40
	Blackgram	LBG-791	4.76	71400	68
	Blackgram	DBGV-5	0.21	3003	3
Commercial crops					
Vegetables	Onion	Bhima super	0.29	26100	17
		Arka kalyan	0.47	42000	20
	Chilli	Byadgidabbi	0.10	35000	10
Flower crops					
Spices					
Fodder crop seeds	Sorghum Multi-cut	COFS-31	13.4 Kg	12738	4
	Fodder Cowpea		4.00 Kg	576	2
	Stylohaemata		1.8 Kg	1726	1
	Styloscabra		1.2 Kg	576	2
	Lucerne		5.0 Kg	4396	4
	Subabul		2.9 Kg	1980	2
	Sesbenia grandiflora		1.30 Kg	1230	3
	Fodder Oats		89.0 Kg	11153	5
Fiber crops					
Forest Species					
Others (specify)	Ashwagandha		0.20	6000	5
Total			61.506	698468	609

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	145	4100	3
Fruits	Mango	Alphanso	152	23600	5
	Tamarind	PKM-1	80	12000	4
	Jamun	AJG-85	97	12300	4
	Guava	Lucknow-49	273	29100	6
	Custard apple	Balnagar	120	13040	2
	Lime	Balaji	165	25060	2
	Papaya	Red lady	105	4750	2
Ornamental plants					
Medicinal and Aromatic					
Plantation	Cashewnut	Vengurla-4	132	19000	6
Spices	Curryleaf	Suhashini	113	4950	3
Tuber					
Fodder crop saplings	Guinea grass		8555	15190	5
	Congo signal		4135	3852	4
	Rhodes grass		9830	9368	5
	Super Napier		5898	11796	5
Forest Species	Teak		400	18600	4
Others(specify)					
Total			30200	206706	60

9.D. Production of planting materials by the KVKs

Crop category	Name of the crop	Name of the Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Vegetable seedlings	Chilli	Byadgi dabbi	5000	5000	1

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	250 lit	10000	30
	Vermicompost	150 Qtl	60000	45
	Rhizobium	74.0 kg	8010	93
	PSB	91.0 kg	10475	91
	Azospirillum	17.0 kg	1925	35
Bio-pesticide			0	
Bio-fungicide	Trichoderma	24.0 kg	4800	50
Bio Agents	Earthworms	38.0 kg	11400	28
Others (specify)	Azolla	8.0 Kg	800	11
Total		15502	107410	383

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	Jersey & HF	02	40000	2
Buffaloes	Surti cross	01	25000	1
Calves				
Others (Pl. specify) Buck	Jamunapari	01	30000	1
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		04	95000	4

PART X – PUBLICATION, SUCCESS STORY, INNOVATIVE MTHODOLOGY, ITK, TECHNOLOGY WEEK**10. A. Literature Published**

(i) Summary of published

Item	Number
Research papers- International	0
Research papers- National	1
Technical reports	0
Technical bulletins	4
Popular articles - English	0
Popular articles – Local language	4
Extension literature	5
Others (Pl. specify) – Abstracts	3
TOTAL	9

(ii) Details of Literature published (Provide details only on Research articles and Technical Reports)

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

1. Research articles in journals:

Sudha V Mankani, Vinayaka H Niranjana, N.H.Bhandi and Hemavati R Hiregoudar (2024) Performance Evaluation of Solar Dryers for Drying of Red Chilli (Capsicum annum). Environment and Ecology (Accepted for publication)

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

KVK Scientists, (January-March, 2023) Krishi Vigyan Patrike, Volume-11, Issue-4, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 9p.

KVK Scientists, (April-June, 2023) Krishi Vigyan Patrike, Volume-12, Issue-1, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 10p.

KVK Scientists, (July-September, 2023) Krishi Vigyan Patrike, Volume-12, Issue-3, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 8p.

KVK Scientists, (October-December, 2023) Krishi Vigyan Patrike, Volume-12, Issue-4, ICAR-K.H.Patil Krishi Vigyan Kendra, Hulkoti, 13p.

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
		Exhibition on Natural Farming, Agri. Technologies & Agri. Equipments	About exhibition on Natural Farming, Agri. Technologies & Agri. Equipments at Shri Kailash Ashram, Hulkoti
		Successful women entrepreneur - Smt. Mangala Kiran Neelgund, Mulagund- ICAR KVK, Gadag	About the success story of a women entrepreneur of Mulgund village in Gadag block of Gadag district
		Integrated Farming under Organic System - Success story	About the success story of a farmer who adopted organic farming under

Sl. No.	Type of media	Title	Details
		of a farmer	integrated farming
2	Mobile Apps	-	-
3	Social media groups with KVK as Admin	WhatsApp – <ul style="list-style-type: none"> • KVK, HULKOTI, GADAG group • Cashew Growers group • Mango Growers group • GADAG FPOs • Nutri-Garden farmers • Dairy entrepreneurs : KVK • Chilli growers 	2976 members
4	Facebook account name	KhpKvkHulkoti	538 followers
5	Instagram account name	KVKGadag	94 followers
6	Twitter Account	ICAR-KVK Gadag	71 followers
7	Youtube Account	K.H.Patil Krishi Vigyan Kendra Hulkoti	4770 subscribers

10.C. Success Stories / Case studies

i) Doubling the Income of Blackgram Farmer :

Shri Mruthunjaya S. Malimath of Akkigunda village in Shirahatti block is one of the young farmer who participated in CFLD-Blackgramprogramme 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	
9.24	6.33	45.97	33288	17996	84.97	2.91

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 2022, 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. MrSharanappa, 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 Buffaloe from Gadag Animal Market. After



With the facilitation of KVK, she started selling Gullakadi Laadu, in the brand name of Basaveshwara Food Products with FSSAI Registration No.: 30230803114063368. Her products were preferred by consumers because of taste,



quality and texture. On an average, monthly she use 2 to 3 quintals of local wheat to make Gullakadi Laadu. With the support of her husband and children monthly she prepares 2.5 quintals of Gullakadi Laadu and sell the produce @ Rs.700/kg. The milk got after grinding Wheat is utilized in making Wheat Bari and sold @ Rs.300/kg. In addition to Gullakadi Laadu, based on the demand of customers she prepares, Groundnut and Sesamum Holigae, Chutney powders etc. She markets her products through off-shooting marketing, local shops and send through courier to various cities like Bengaluru, Mysore etc. KVK also facilitated in marketing her products through KVK Sales Counter established at KVK's Millet Cafe on the NH-63. On an average, she earns a monthly income of Rs.30000 to Rs.40000. Her husband and children also cooperate in the preparation of the Gullakadi Laadu. Thus the KVK support in FSSAI Licensing and procurement of dough mixing machine helped her to prepare Laadu without much difficulty. She always remembers the support of KVK in making her as Entrepreneur.



vi) A SUCCESS STORY OF FARMER WHO REARS NARISUVARNA BREED OF RAM

Shri Jinjappa Ningappa Guravin is resident of Shingatarayanakeri village of Mundaragi block is one of the successful sheep farmer and managing the small enterprise with sheep rearing in dryland area since 2015-16. He was rearing a flock of 10 non-descriptive local sheep. Due to lack of knowledge management practices of sheep, he faced lot of mortality of sheep. During 2018, his sheep population reduced to only four. This has put him in distress as he did not have alternative livelihood option.



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During this period, Shri Guravin came in contact with KVK, Gadag as the village was adopted under National Innovation and Climate Resilient Agriculture (NICRA) Project. KVK trained Shri Guravin on Scientific Management of sheep with major focus on balanced nutrition, deworming, vaccination and disease management.

During 2020-21, he was given Narisuvarna breed of sheep by KVK. Now,



he has a 10+1 sheep unit. During subsequent year, the doe gave birth to 10 male and 20 female lambs. Interestingly, 3 doe gave birth to twins which totals to 6 lambs. Now, the sheep population has increased to 40.



He has sold 10 male per lamb to other sheep an income of Rs.60,000/-. In unit size increased to 23



lambs at the cost of Rs.6000/- farmers in the region and earned the subsequent years, his sheep sheep(22+1).

Because of KVK's continuous technical support, he is able to achieve good income. He says that, upgraded (Narisuvarna) one year old sheep has body weight of 40 to 50 kgs as against 30-35 kgs in breed. Further, he says that he is providing upgradation services to other sheep units at free cost. Due to this intervention, the upgraded sheep population is increasing in Shingatarayanakeri village as well as in the neighboring villages and taluks. Now Mr.Guravin has a unit size of 11 upgraded lambs. He aims to increase the unit size to 50 by 2025. He owes the credit to KVK's NICRA Project for improving his livelihood status.



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vii) Drought mitigation with New Variety (HN-46) of Foxtail Millet Crop:

Shri Mohammad Ali Nadaf of Kalakeri village in Naragund block is one of the progressive farmers participated in FLD-Foxtail Millet programme during 2023-24. He is very enthusiastic to adopt improved technologies to address productivity constraints in field crops. He used to cultivate Greengram and Maize during Kharif season. But due to scanty rainfall and increased moisture stress during 2023-24, he couldn't take up Greengram crop.

KVK, Scientists suggested him to take up foxtail millet which can give good yield and can be used as contingent crop in drought conditions. Demonstration of high yielding HN-46 variety of Foxtail Millet was laid out under the supervision of KVK Scientists in 0.4 ha area in Shri Nadaf's field. Apart from this, there was also knowledge gap in management of nutrient in foxtail millet. Local variety of Foxtail Millet was also raised in the adjacent plot. Shri Mohammad Ali Nadaf adopted all the suggested technologies related to sowing

method, seed rate, nutrition, intercultivation and management of pests. KVK Scientists periodically visited his plot and given him timely suggestions. As a result of this, good crop was raised and all the farmers in the village visited the plot and learnt about the demonstrated new Foxtail Millet variety (HN 46) and ICM practices 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	
15.75	12	31.25	32950	22400	47.09 %	3.75

The farmer could get 31.25 per cent increased yield and 47.09 per cent increased net income. The yield achieved by the farmer was near to potential yield of the variety. This yield was 2 times the yield of District average. In addition to this, he used local chakki service and performed primary processing viz., cleaning and dehulling of foxtail millet by which the price increased by Rs. 2000/qtl. The farmer has chosen open market for sale of processed produce and got better price.



KVK Scientist interacting with Foxtail millet farmers



Field day organised in farmers' field

10.D. Give details of innovative methodology or innovative approach of transfer 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, You Tube 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 technical knowledge practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK	Scientific Rationale
1	Crops	To reduce the infestation of weed i.e Cyprus rotundus, 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 Cyprus rotundus. 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 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 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 animals with lime water	For the treatment of foot and mouth disease	Lime has antiseptic 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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK	Scientific Rationale
				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	Status
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	Amount realized (Rs.)
Soil Samples	11510	25571	409	
Water Samples	5753	5570	"	
Plant samples	126	126	"	
Manure samples	-	-	-	
Others (specify)	-	-	-	
Total	17389	31267	409	

C. Details of samples analyzed :

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	598	1446	153	
Water Samples	187	15	6	
Plant samples				
Manure samples				
Others (specify)				
Total	785	1461	159	

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 2022	During 2023	Cumulative progress (Total)
Samples analyzed (No.)	253	215	2028
Farmers benefited (No.)	654	578	5866
Villages covered (No.)	5	34	39

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 ^s January, 2023 to 31 st December, 2023	138	1240	322	718
Mobile Soil Testing Kit	1 ^s January, 2023 to 31 st December, 2023	11	206	215	578

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	127	86	-	2	11	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 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.

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

I. 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	KalakeriChikkasavanur, 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

considerate net income to the district farmers.

ORGANOLEPTIC EVALUATION OF RABI SORGHUM VARIETIES :

SI. 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.

II. IMPACT ANALYSIS OF INTERVENTIONS IN PROMOTION OF CASHEWCROP IN GADAG DISTRICT

INTRODUCTION :

Gadag is one of the drought prone districts in Karnataka state, it receives annual rain fall of 443 mm. Farmers faced challenging situation in red soil based cropping system. They mainly cultivate Spreading Groundnut in red soil during Kharif season in an area of 30,000 hectares. The average productivity is 6.7 quintal per hectare. The reason for low productivity is moisture stress situation caused due long dry spells and frequent occurrence of agricultural droughts during last two decades. Hence, the cultivation of Spreading Groundnut has become non-remunerative to the farmers. Unlike in case of black soil where farmers can take up two crops in a year (Kharif and Rabi seasons), red soils cannot support even one good crop if rainfall is inadequate.

KVK developed strategies and interventions to promote Cashew based farming system in rainfed red soil areas. The objective was to bring income security to farmers and increase the income of farmers

KVK INTERVENTIONS :

To address this problem, KVK initially took planting of five different varieties of cashew in KVK Instructional farm under the technical guidance of ICAR-Centre for Agricultural Research Institute, Goa. The crop adopted very well to climatic and edaphic factors of Gadag district. The research feedback on performance of the crop was given back to Cashew Research Institutes. The growth and the yield of the crop was appreciated by scientific and farming community. In this backdrop KVK Gadag approached ICAR-Directorate of Cashew and Cocoa Development(DCCD), Cochin for the supply of planting material and financial assistance for area expansion of Cashew crop in the Gadag district. DCCD supplied planting materials of Vengurla -4 variety to farmers of Gadag district and planting was done by farmers under the technical guidance of KVK scientists. Now the Cashew crop become an alternate crop in red soil in rain shadow areas where cultivation of field crop are not viable due to vagaries of monsoon. ICAR-Centre for Agricultural Research Institute (CCARI), Goa and ICAR-Directorate of Cashew Research (DCR), Puttur have developed Cashew cultivation technologies for rain shadow areas. Keeping in mind the problems of farmers in red soil area, KVK Gadag promoted Cashew crops as an alternative crops through Front Line Demonstrations, farm advisories, training programmes and facilitation for forward and backward linkages and convergence with line departments.

DETAILS OF TECHNOLOGIES AND ACTIVITIES CARRIED OUT FOR PROMOTION OF CASHEW CROP:

- 1. Front Line Demonstration:** From 2013-14 KVK organised Front Line Demonstrations on crop diversification through introduction of Cashew crop as an alternative crop for field crops under dryland conditions in 22.8 ha area belonging to 57 farmers in the district. The FLDs organised by KVK is depicted in Table-1

Table:1 FLD programme on Crop diversification through introduction of Cashew crop

Sl. No	Year	Area (Ha.)	No. of farmers
1	2013-14	4	10
2	2014-15	2.4	6
3	2016-17	2	5
4	2018-19	6	15
5	2020-21	2	5
6	2023-24	6.4	16
TOTAL		22.8	57



Details of technologies demonstrated:

- Adoption of rain water harvesting structures in field
 - Planting of improved cashew varieties Ullal-1, Vengurla-4,(FRS,Vengurla , Maharashtra), Bhaskar (DCR,Pttur) and Hybrids like Nethra Jumbo-1, Nethra Ubhay, Nethra Ganga (H-130)
 - Planting made during the months of June-July.
 - In-situ soil moisture conservation practices viz., semi circular crescent bunds across the slopes are made.
 - Adoption of Integrated nutrient management practices
 - Irrigation of plants during summer months for initial 3 years.
 - Take intercrops in Cashew orchard to ensures income for maintenance of orchards.
 - Adoption of Integrated pest and disease management practices.
 - Farmers got expect steady income from Cashew after 5th year of planting.
2. Details of the extension activities carried out: KVK formulated various technology interventions and strategies to overcome the issue. Technological interventions were finalised with the experts' advice from ICAR Institutes.

Details of activities carried out by KVK for promotion of Cashew

i) SENSITIZATION PROGRAMMES: (86 Nos., 760 farmers)	
ii) TRAINING PROGRAMMES: (36 courses, 696 farmers)	
iii) EXTENSION PROGRAMMES: Crop Seminars: 11 Nos., 1672 farmers Field visits : 469 Nos., 2480 farmers Farm advisory : 748 Nos., 1122 farmers Exposure visit of farmers: 86 Nos., 864 farmers Study tour to Cashew Growers:	
iv) CONVERGENCE STRATEGIES ADOPTED : KVK identified partners who have similar objective of promotion of Cashew crop for upscaling efforts. KVK convened a meeting of identified partners in order to understand the role to be played by each partner in promotion of Cashewnut crop in Gadag district.	

<p>Convergence partners in Cashew promotion are:</p> <ol style="list-style-type: none"> State Department of Horticulture Reliance Foundation (NGO) Directorate of Cashew and Cocoa Development (DCCD), Cochin Sujala – Watershed Development Programme ATMA (State Department of Agriculture) 	
<p>v) Organised Cashew growers in to Cashew Growers Association and through which KVK worked on cashew promotion with respect to technological and marketing support along with facilitation of linkage with Directorate of Cashew and Cocoa Development (DCCD), Cochin and State Department of Horticulture for availing incentive. KVK played a role of nodal agency having convergence with DCCD, Cochin.</p>	

OUTCOME AND IMPACT OF INTERVENTIONS

Economic performance of the KVK interventions:

KVK's sustained efforts during last decade has resulted in spread of Cashew in an area of 636.77 hectares in Gadag district. Five year old Cashewnut plant yields about 4 Kg raw Cashewnut under rainfed situation. Each kg fetches an average price of Rs.110/- to Rs.130/- in the market. From 5 to 7 years old Cashew orchards, farmers have been getting net income of Rs.65,000/- to Rs.1,00,000/- per hectare depending on the maintenance of the orchards compared to Rs.15,000/- to Rs.25,000/- per hectare from cultivation field crops under rainfed situation. Notably these income levels are achieved during agricultural drought years. Cashew area is spread in 636.77 hectares, out of which 30 per cent of the orchards are of 5-6 years old. The details are presented in table-2

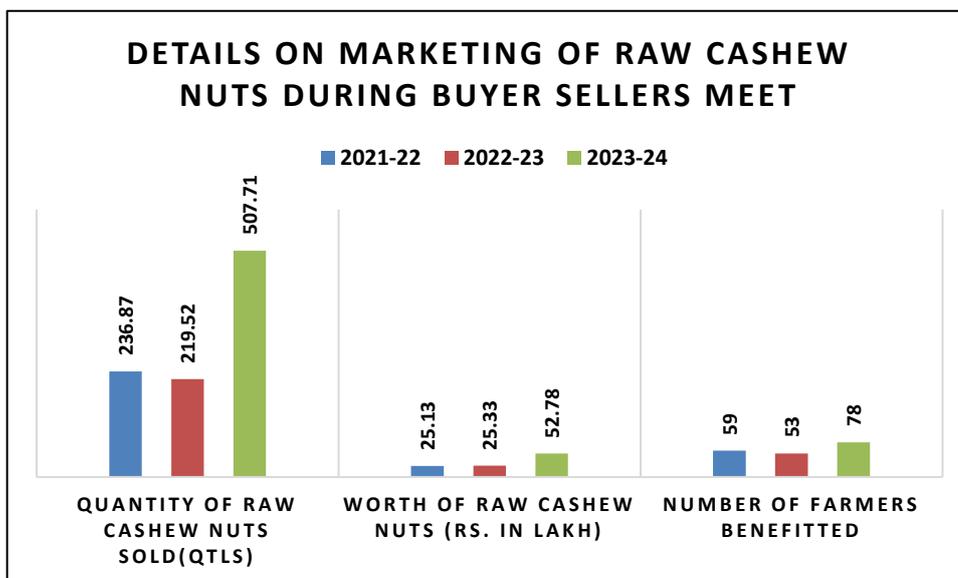
Table-2 : Economics of Cashew Cultivation in Comparison with Spreading Groundnut

Crop	Average yield (Q/ha)	Cost of cultivation (Rs/ha)	Gross returns (Rs/ha)	Net income (Rs/ha)
Spreading Groundnut	14	25,000	45,000	20,000
Cashew crop				
5 year old orchard	8	22000	88000	66000
7 year old orchard	11	25000	129800	104800

Buyers sellers meet : Since from 2021-22 KVK gadag is organizing cashew raw nuts Buyer-Sellers Meet where farmers are informed through WhatsApp group about marketing of Cashew raw nuts. Data depicted in Fig.-1 indicates that from last three years there is significant increase in farmers participation in the buyer sellers meet with exponential increase in yield and worth of the cashew raw nuts. 190 farmers participated in the meet and sold 964.10 Qtls of raw cashew nuts

worth of Rs.103.24 Lakhs. Already Cashew is contributing approximately Rs.103 lakh per annum to the district economy. In near future of 4-5 years, it may go up to Rs.180 lakh per annum.

Fig.-1 Details on marketing of raw cashew nuts during buyer sellers meet



SPREAD OF THE TECHNOLOGY TO OTHER FARMERS FROM 2015 TO 2023-24

The successful interventions of the KVK Gadag entered into policies of Karnataka State department of Horticulture and thus in convergence with DDCD, Cochin, State Department of Horticulture and DCR, Puttur, KVK could able extend the area under cashew crop in 636.77 ha benefitting 515 farmers in the district. The details of are given in Table-3.

Table-3: Year wise area expansion under cashew crop in Gadag district

Sl.No.	Year of planting	Number of Grafts supplied	Area under Cashew crop (ha)	Number of farmers benefitted	Average Survival of saplings (%)
1	2015	6880	34.4	28	93.02
2	2016	1600	08.00	20	96.38
3	2017	46855	305.97	125	83.84
4	2018	5200	26.00	52	84.77
5	2019	11920	59.60	79	86.85
6	2020	19444	100.00	66	77.77
7	2021	8000	40.00	60	86.73
8	2022	6560	32.80	52	85.02
9	2023	6000	30.00	33	80.53
	Total	112459	636.77	515	85.87

CONCLUSION :

Comprehensive interventions of KVK with convergence mechanism has paved the way for spread of Cashew area in Gadag district. There is significant impact of KVK activities on area expansion and farmers' income. Crop diversification through introduction of Cashew based farming

system in red soil under rainfed situation has emerged as a profitable technology for addressing the productivity constraints in cultivation of field crops in red soils in drought prone areas like Gadag district. There has been significant improvement in the livelihood of farmers owing to adoption of rainfed Cashew cultivation. This is evident from the income realized by the farmers from Cashew cultivation in comparison with field crops.

PART XIII - LINKAGES

13.A. Details of linkage with ATMA

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	KVK-ATMA Intefernce Meetings and ATMA Steering Committee meetings	2	4	-
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

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
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		5	-	Jointly organised with ATMA
	Exhibition		2	-	Jointly organised with ATMA
	Soil health camps		2	-	Jointly organised with ATMA
	Animal Health Campaigns		2	-	Jointly organised with ATMA
	Others (Pl. specify)		-	-	-
	Field Day		4	2	Jointly organised with ATMA
	Jal Shakti Abhiyaan		4	2	Jointly organised with ATMA
	World Food Day		1	1	Jointly organised with ATMA
	International Womens' Day		1	1	Jointly organised with ATMA
	World Soil Health Day		1	1	Jointly organised with ATMA
	Farmers' field school	-	2	-	Jointly organised with ATMA
	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)				

13B. List of special programmes undertaken by the KVK which have been financed by State Government/University/National Horticultural Mission/ RKVY/ National Fisheries Development Board/Other Agencies

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

13C. Kisan Mobile Advisory Services

Month	No. of Advisories	No. of Text messages sent	No. of voice messages sent	SMS/voice calls sent (No.)						Total SMS/Voice calls sent (No.)	Farmers benefitted (No.)
				Cr op	Livest ock	Weat her	Market ing	Awaren ess	Other enterpri ses		
January 23		Text	-	2	0	2	1	0	0	5	8210
February 23		Text	-	1	1	1	1	1	0	5	8200
March 23		Text	-	2	1	1	0	1	0	5	8200
April 23		Text	-	1	0	0	0	0	0	1	11429
May 23		Text	-	2	0	2	0	0	0	4	2456
June 23		Text	-	1	1	2	1	0	0	5	10230
July 23		Text	-	2	0	0	1	1	1	5	9820
August 23		Text	-	2	1	6	1	0	0	10	10250
September 23		Text	-	1	1	2	0	0	0	4	10002
October 23		Text	-	2	1	3	1	1	0	8	6200
November 23		Text	-	3	1	1	1	2	1	9	11212
December 23		Text	-	1	1	3	1	0	0	6	10500
Total				20	8	23	8	6	2	67	106709

PART XIV- PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Green House	2007	250 Sq. ft.	Chilli-Byadgidabi	Seedlings	5000	1500	5000	

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Rabi Jowar	11.11.23	Yet to be harvested	4.0	SPV-2217	Seeds	25.0	15000	75000	Expected
Pulses									
Bengalgram	13.11.23	Yet to be harvested	3.2	JAKI-9218, DBGV-204	Seeds	20.0	37200	110000	Expected
Oilseeds									
Safflower	14.11.23	Yet to be harvested	3.6	A-2020, DASF-1, ISF-764	Seeds	27.0	36500	135000	Expected
Fibers									
Spices & Plantation crops									
Cashew			0.80	Vengurla-4	Nuts	8.0	21000	86400	
Coconut	2018		4.00	Deejay sampoorna	Tender Nuts		85000	22500	
Coconut + Custardapple	2021		3.00	Kalpa surya, Kalpa jyothi, COD			25000	-	Planted 2 years back
Floriculture									
Fruits									
Tamarind			0.60	PKM-1 & DTS-1	Fruit	25.0	7500	120000	
Amla			0.60	NA-7, Krishna	Fruit	11.7	-	29200	
Mango			0.80	Alphonso	Fruit	-	24500	-	
Tamarind + Mango + Amla	2021		8.0	DTS-1, Kesar, NA-7		-	15000	-	Planted 2 years back
Agroforestry	2020		0.8			-	3000	-	Planted 2 years back
Vegetables									
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	150.0 Qtl	27500	60000	
2	Earthworms	0.38 Qtl	5800	11400	
3	Azolla	0.08 Qtl	500	800	

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	782 lit	24000	31280	
2	Cow	Jersey	Milk	2345 lit	62000	70350	
3	Sheep	Nari Suvarna	Lamb	2 lamb	2000	5000	
3	Goat	Jamunapuri local cross	Kid	1 kid	3500	6000	

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)
January, 2023	15	9	-
February, 2023	0	0	-
March, 2023	22	4	-
April, 2023	257	18	-
May, 2023	253	31	-
June, 2023	200	10	-
July, 2023	53	11	-
August, 2023	28	7	-
September, 2023	28	9	-
October, 2023	28	9	-
November, 2023	14	2	-
December, 2023	298	31	-

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

15.5 CFLD on Oilseeds:

Sl. No.	Crop	Varieties demonstrated & Check		Allocated		Implemented	
				Area (ha)	Demos (No.)	Area (ha)	Demos (No.)
		Demo	Check				
1	Sunflower	KBSH-78		50	125	50	125
	Total			50	125	50	125

15.6 CFLDs on Pulses:

Sl. No.	Crop	Varieties demonstrated & Check		Allocated		Implemented	
				Area (ha)	Demos (No.)	Area (ha)	Demos (No.)
		Demo	Check				
1	Blackgram	LBG-791		26	65		
	Total						

15.7 Krishi Kalyan Abhiyan : NIL

Type of Activity	Date(s) conducted	No. of farmers (General)			No. of farmers SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total

15.8 Micro-Irrigation

Type of Activity	Date(s) conducted	No. of farmers (General)			No. of farmers SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Training on Irrigation methods and water management	15-04-2023	33	3	36	4	0	4	2	0	2
Training on operation and maintenance of drip irrigation system	04-08-2023	22	8	30	3	3	6	3	1	4
Training programme on Importance of micro irrigation system	15-09-2023	27	0	27	8	0	8	1	2	3
Training on Installation and maintenance of micro irrigation systems	27-12-2023	0	18	18	0	7	7	2	0	2

15.9 Tribal Sub-Plan (TSP) : NIL

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

15.10 SCSP :

Farmer Training		Women Farmer Training		Rural Youths		Extension Personnel		OFT (No of Technologies)	Number of farmers involved			Participants in extension activities (No.)	Production of seed (q)	Production of Planting material (Number in lakh)	Production of Livestock strains (Number in lakh)	Production of fingerlings (Number in lakh)	Testing of Soil, water, plant, manures samples (Number)
No. of Trainings/Demos	No. of Farmers	No. of Trainings/Demos	No. of Women Farmers	No. of Trainings/Demos	No. of Youths	No. of Trainings/Demos	No. of Ext. Personnel		On-farm trials	Frontline demos	Mobile agro-visor y to farmers						
5	290	1	18	0	0	0	0										

15.11 NARI : NIL

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

FLDs – Value addition(activity in no. of Unit/Enterprise)		
FLD- Other Enterprises (activity in no. of Unit/Enterprise) (activity in no. of Unit/Enterprise)		
Trainings		
Extension Activities		

15.12 KVK Portal

No. of Events added by KVKs	No. of Facilities added by KVKs	Filled Report on Package of Practices (Y/N)				Filled Profile Report (Y/N)							
		Crop	Livestock	Fisheries	Horticulture	Employees	Posts	Finance	Soil Health Cards	Appliances	Crops	Resources	Fish
2789	13	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y

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	Taluku	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 ker 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 	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)
							ICM practices <ul style="list-style-type: none"> • 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 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 <ul style="list-style-type: none"> • GPBD-4 	<ul style="list-style-type: none"> - Early maturity - Two seeded pods - Resistant to rust and late leaf spot
2	<ul style="list-style-type: none"> • DGGV-2 	<ul style="list-style-type: none"> • High yielding • Non shattering • Taller canopy • Suitable for mechanical harvesting

Sl. No.	Crop varieties/hybrids assessed/ demonstrated	Farmer's feedback
3	Vegetable crop cafeteria	
	• Ridgegourd - Arka Prasan variety	<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
	• Dolichos bean – Arka Amogh	<ul style="list-style-type: none"> • More yield, good marketability and consumer acceptability
	• Radish – Arka Nishant	<ul style="list-style-type: none"> • More yield, mild in pungency and attractive roots and foliage • Preferred by local market
	• Spinach – Arka Anupama	<ul style="list-style-type: none"> • More yield, thick and big leaves make large bunch & attractive green leaf colour and Good Shelf life
4	Onion • Bheema Super	<ul style="list-style-type: none"> • Bheema Super have good bulb weight with 20.87 % increase in the yield. Bulbs are attractive with light pink colour fetches Rs.200/- more per quintal compared to local variety Bellary 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
7	Use of Arka Vegetable Special at 40, 60 and 80 days after sowing in vegetables and Red Onion	<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

Sl. No.	Agronomic practices	Farmer's feedback
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 spot 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 Trichoderma	Low incidence of soil borne fungal diseases
4	Seed treatment with <i>Trichoderma viride</i> and Imidachloprid in Byadagi Chilli	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

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 2023-24 (Up to December 2023)

S.No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	22375000	17997032	15280305
2	Traveling allowances	25000	90250	154438
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	475000	425000	498669
B	POL, repair of vehicles, tractor and equipments	425000	350000	435109
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	160000	75000	125645
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	22000	15000	26105
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	400000	350000	389620
F	On Farm Testing (on need based, location specific and newly generated information in the major production systems of the area)	100000	75000	100000
G	Integrated Farming System	0	0	0
H	Training of Extension Functionaries	15000	5000	21700
I	Extension activities	150000	150000	127903
J	Farmers' Field School	0	0	0
K	EDP / Innovative activities	30000	30000	30000
L	Maintenance of buildings	150000	150000	150000
M	Maintenance of Farm	350000	150000	200250
N	Establishment of Soil, Plant & Water Testing Laboratory and issue of Soil Health Cards	125000	125000	124200
O	Nutri Garden	25000	25000	24985
P	Library Maintenance	20000	20000	21650
Q	Demonstration of Technologies for Wild Animal Management	150000	100000	137000
R	SCSP Programme	347000	239350	296340
TOTAL (A)		25569000	20371632	18143919
B. Non-Recurring Contingencies				
1	Works	500000	220000	186500
2	Equipments including Furniture (IT)	0	0	0
3	Vehicle (Four wheeler)	0	0	0
4	SCSP Programme	181000	119650	201482
TOTAL (B)		681000	339650	387982
C. REVOLVING FUND		0	0	0
GRAND TOTAL (A+B+C)		26250000	20711282	18531901

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

Year	Opening balance as on 1st January	Income during the year	Expenditure during the year	Net balance in hand as on 31st December of each year
January to December 2021	4.51	16.57	15.89	5.19
January to December 2022	5.19	15.16	15.49	4.86
January to December 2023	4.86	16.04	16.37	4.53

18. Details of HRD activities attended by KVK staff

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. Sudha V. Mankani	Senior Scientist and Head (I/c) & SMS (Home Science)	Intra KVK visit for cross learning	Kerala KVKs	16-18, August 2023
		Buyers-Seller Meet - Millet Cookery show	CMFRI, Ernakulum	28-30, December 2023
Mr. N.H.Bhandi	SMS (Soil Science)	South Asia Drought Monitoring System (SADMS)	CRIDA, Hyderabad	9-10 March 2023
		National seminar on millet	NIASM, Baramati	22-23, August 2023
		Importance of soil testing & nutrients recommendation	IIHR, Bengaluru	21, September 2023
Mrs. Hemavati R.H.	SMS (Horticulture)	Webinar on adaptation & management strategies of fruit orchards under climate change scenario	Online by MANAGE, Hyderabad	30 June 2023
		Mango Export Awareness Programme	Mango Export Awareness Programme	8 November 2023
		Training to FPO members by Center of Excellence, Bengaluru	Confederation of horticulture associations of India	28 July 2022
Dr. Vinayak Niranjana	SMS (Ag. Engineering)	Data Driven Agriculture : A Statistical Analysis Training using R	College of Agriculture, Sumerpur	23-27, May 2023
		National seminar on evolving extension science towards secondary agriculture for sustainable development	GKVK, UAS, Bengaluru	22-24, June 2023
		57th Annual convention of Indian society of Agricultural Engineers	UAS, Raichur	6-11, November 2023

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

(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 Chill 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, marts and petty shops

Name of the SHG member	Brand name	Village	Taluk	Date of initiation
Mrs. Shilpa Basavaraj Angadi	Shivaprasad Gruha Utpannagalu	Hulkoti	Gadag	March 2023
Mr. Muralidhar R. Odugoudar	Shri Sai Gayatri Gruha Utpannagalu	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	20 Qtls	700 / Kg	1400000	500/Kg	1000000	400000
	Groundnut Holige		2000 Nos.	15 / Piece	30000	12/Piece	240000	60000
	Sesame Holige		2000 Nos.	18 / Piece	36000	14 / Piece	28000	8000
Total								30600
Mr. MuralidharR. Odugoudar	Gulladaki Ladu	2023	2 Qtls	700 / Kg	140000	500 / Kg	100000	40000
	Wheat Sandige		30 Kg	400 / Kg	120000	50 / Kg	20000	100000
	Groundnut Ladu		30 Kg	450 / Kg	114000	350 / Kg	11000	30000
Total								170000