ICAR-ATARI, Pune
DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2023
(January 2023 to December 2023)

1. GENERAL INFORMATION ABOUT THE KVK

1.1. Name and address of KVK with phone, fax and e-mail

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra, Satara I, At/Post – Kalwade, Tahsil – Karad, District – Satara, State – Maharashtra, Pin – 415539	02164 – 288070	9423529137	pckvkkarad@gmail.com	www.kvkkarad.co.in Visitors - 17892

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

Address	Telephone		E mail	Website address
	Office	FAX		
Krishi Vigyan Kendra, Satara I, At/Post – Kalwade, Tahsil – Karad, District – Satara, State – Maharashtra, Pin – 415539	02164 – 288070	9423529137	pckvkkarad@gmail.com	kvkkarad.com

1.3. Name of the Senior Scientist and Head with phone & mobile No.

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. B.S Khandekar	**9423529137**	**9423529137**	bskhandekar4@gmail.com

1.4. Date and Year of sanction: June 2002

1.5. Staff Position (as on December, 2023)

					If Permanent, Please indicate			If Temporary, pl. indicate the consolidated amount paid (Rs./month)
Sl. No.	Sanctioned post	Name of the incumbent	Mobile No.	Discipline	Current Pay Band	Current Grade Pay	Date of joining	
1.	Senior Scientist and Head	**Vaccant**	-	-	-	-	Vaccant	
2.	Subject Matter Specialist	Dr. Bharat S.Khandekar	9423529137	Soil Science	27405	5400	03/05/2012	
3.	Subject Matter Specialist	Mr. Nilesh H.	9545447699	Agronomy	24336	5400		

		Thorat					20/06/2016	
4.	Subject Matter Specialist	Mr. Vishal R. Mahajan	9767411699	Agricultural Extension	23635	5400	13/02/2017	
5.	Subject Matter Specialist	Dr. Nagesh Gawade	8320062093	Horticulture	-	5400	23/1/2023	
6.	Subject Matter Specialist	Dr. Priyadershani Deshmukh	8050710373	Home Science	22946	5400	3/10/2018	
7.	Subject Matter Specialist	Dr. Dilip Ghongade	6280695783	Plant Protection	-	5400	10/12/2022	
8.	Programme Assistant	**Vaccant**	-	Veternary	-	-	Vaccant	
9.	Computer Programmer	Mrs. Shubhapradha Mohite	9665312493	Computer	14751	4200	22/10/2018	
10.	Farm Manager	Mr. Prakash P. Thorat	8999693089	Farms	18710	4200	28/12/2010	
11.	Accountant/Superintendent	**Vaccant**	-	Accountant		-	Vaccant	
12.	Stenographer	Mr . Pawan L.Joshi	9922433984	Computer Science	11067	2400	11/05/2017	
13.	Driver 1	Mr Sandeep J. Bhilare	8007289659	General Admn	10653	2000	01/11/2011	
14.	Driver 2	Mr. Vikas B. Chorge	9637303201	General Admn	9521	2000	17/11/2016	
15.	Supporting staff 1	Mr. Shankar M. Kumbhar	8805255929	General Admn	11163	1800	02/12/2002	
16.	Supporting staff 2	**Vaccant**	-	General Admn	-	-	Vaccant	

1.6. Total land with KVK (in ha): 20

S. No.	Item	Area (ha)
1	Under Buildings	0.13
2.	Under Demonstration Units	2.00
3.	Under Crops	10.40
4.	Horticulture	4.00
5.	Pond	0.47
6.	Others if any (Specify)	3.00
	Total	**20**

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq. m)	Expenditure (Rs.)	Starting year	Plinth area (Sq. m)	Status of construction
1.	Administrative Building	ICAR	93 – 94	446.00	970777			
2.	Farmers Hostel	ICAR		329.40	898660			
3.	Staff Quarters	ICAR	93 – 94	199.12	777693			
4.	Fencing	KVK R/F	05 – 06	70.00	280563			
5	Rain Water harvesting system	RKVY	05 – 06	64.00	529450			
6	Threshing floor							
7	Farm godown							
8	Soil and water testing lab	KVK RF	2008 -09	270	1800000			
9	Mini soil testing Kit							
10	Sell Contour							
11	Demo unit	KVK RF	2012 -13	510	205000			
i		KVK RF	2021 -22	400	10200			
ii								
12	ICT lab							
13	Solar Panel							
14	counter seal							
	Other pl mention							

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Running	Present status
Tractor	2002	420000	-	Working
Motorcycle	2003	37000	-	Working
Jeep	2020	600000	125190	Working

C) Equipment & AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer -2	March 2003	60000	Need to Upgrade
Printer-1	February 2003	11550	Not Working
UMAX Scanner -1	February 2003	5000	Working
UPS	February 2003	13500	Needs to replace
Colour Printer	July 2002	4500	Not working
Audio System- Ahuja	March 2005	8575	Working
Mic – 2	March 2005	1360	Working
Speakers – 2	March 2005	2050	Working
TV Onida 29 ''	March 2005	16690	Working
DVD Onida	March 2005	4785	Working
Laptop	March 2005	60770	Working
Printer Cum Fax	March 2006	7000	Working
Digital Camera	March 2004	20000	Not Working
LCD Projector –Optoma	March 07	59223	Not Working
LCD Projector Screen	March 07	11289	Not Working

Video Camera Digital – Sony	March 07	29432	Not Working
Multi Seed Drill Planter	March 03	27600	Working
Tractor Trolley	March 03	55000	Working
Tractor Side Plough	March 03	8730	Working
Rotavator (130DI)	March 2006	86431	Working
Sugarcane Rotavator ridger	March 2006	21500	Working
Plough Popular	March 2006	36036	Working
Stabilizer for Xerox	March 2008	9175	Not Working
Xerox machine- Canon Make	March 2008	132500	Not Working
Computer (Dell Optiplex 755)-5	March 2009	Funded by ICAR/ERNET	Working
Server (Dell PE 2900) -1	March 2009		Working
Dot matrix printer (TVS MSP-245) – 1	March 2009		Working
Dax 24 port Switch (DX-5024-GSE) – 1	March 2009		Working
650 VA UPS (APC) – 5	March 2009		Working
3 KVA UPS (APC) with 16 batteries – 1	March 2009		Working
HP Laserjet P 1505 Printer – 1	March 2009		Working
HP Scanner G3100 – 1	March 2009		Working
Computer table (Godrej) – 6	April 2009		Working
Printer table (Godrej) – 2	April 2009		Working
4103 I Chair – 10	April 2009		Working
AC (Onida 1.5 Ton) – 1	April 2009		Working
1.8 M Prodelin Antenna – 1	July 2009		Not Working
Viasat Linkstar IDU – 1	October 2009		Not Working
5 Watt C-Band ODU with external PSU – 1	October 2009		Not Working
LNBC – 1	October 2009		Not Working
VOIP & FAX equipment – 1	October 2009		Not Working
Seed cum fertilizer drill	March 2009	30000	Working
Grain & seed cleaner	March 2009	20000	Working
Bullock drawn Sugarcane fertilizer Driller	March 2009	5000	Working
Genset Kirloskar	March 2009	249700	Not Working
Solar battery charging system	March 2009	78000	Not Working
Solar Integrated power system with Battery backup, fitting & other	March 2009	357013.18	Not Working
Solar water heater for guest house	March 2009	85500	Not Working
Water tank 1000 lit	March 2009	2644	Working
Meeting hall with colour, table, chair, carpet, POP, curtains, Aluminum windows & electric fitting etc.	March 2009	96441	Working
Wooden sofa set	March 2009	8437	Working
Microphone Ahuja	March 2009	2715	Working
Office cupboard & rack	March 2009	29700	Working
AC for Meeting hall – 2	March 2009	37000	Working
HP Laser colour printer	April 2016	35300	Working
Laser printer Cannon	August 2016	8000	Working
Brookbond Tea and coffee machine	April 2016	21300	Working
Laptops with inverter and internet system (Two)	March 2017	95000	Working
LCD Projector	March 2021	32000	Working
DSLR Cammera	March 2021	40000	Working
Mike with speaker trolly	March 2021	16000	Working

1.8. Details of SAC meeting conducted in the year:

Date	Name and Designation of Participants	Salient Recommendations	Action taken

2. DETAILS OF DISTRICT / JURISDICTION AREA OF KVK

Sr. No	Name of Taluka
1	Karad
2	Patan
3	Koregaon
4	Man
5	Khatav

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

S. No	Farming system/enterprise	
1	Mahabaleshwar	Agriculture + Horticulture
2	Wai	Sugarcane based (Agriculture) + Vegetable based (Horticulture) + Dairy
3	Khandala	Dry land Farming
4	Phaltan	Agriculture + Dairy + Semi dry land
5	Man	Dry land Farming
6	Khatav	Dry land Farming
7	Koregaon	Agriculture + Horticulture + Dairy
8	Satara	Sugarcane based Agriculture + Horticulture + Dairy
9	Javali	Agriculture + Horticulture + Dairy
10	Patan	Agriculture + Horticulture + Dairy
11	Karad	Sugarcane based (Agriculture) + Dairy + Horticulture

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

S. No.	Agro-climatic Zone (Planning Commission)	Characteristics
1	WESTERN GHAT ZONE	Mahabaleshwar and western part of Javali, Patan and Wai lies in this zone. The height is near about 1500 – 1900 meter from sea level. Soils are majorly red lateritic with very shallow soil depth.
2	SUB MOUNTAIN ZONE	Western part of Satara, Patan, Javali and Wai Tahsil are forms this zone. This zone receives 1500 to 2500 mm annual rainfall. Soil type in this zone is light, medium type & well drained.
3	WESTERN MAHARASHTRA PLAIN ZONE	Eastern part of Satara & Wai, Western part of Karad & Koregaon lies in this zone. The Krishna and Koyna river flows in this zone. Black fertile soils.
4	WESTERN MAHARASHTRA SCARCITY ZONE	This zone consists of Khatav, Man, Phaltan, and Khandala & Koregaon Tahsil. This zone receives 500 to 600 mm annual rainfall. Soils majorly medium to deep black cotton soils.

a) Topography

S. No.	Agro ecological situation	Characteristics
1	MOUNTAIN ZONE	Mahabaleshwar and western part of Javali, Patan and Wai lies in this zone. The height is near about 1500 – 1900 meter from sea level. Undulating topography with light red soils and annual rainfall ranges from 3000-5000 mm. The Paddy, Nagali & Maize is the major crop of region.
2	SUB MOUNTAIN ZONE	Western part of Satara, Patan, Javali and Wai Tahsil are forms this zone. This zone receives 1500 to 2500 mm annual rainfall. Soil type in this zone is light type & well drained. Paddy, Jowar, groundnut, Sugarcane, and vegetables are the major crops of this zone.
3	PLAIN ZONE	Eastern part of Satara & Wai, Western part of Karad & Koregaon lies in this zone. The Krishna and Koyna river flows in this zone. Black fertile soils and 650 mm to 1000 mm annual rainfall are the characteristics of this zone. The maximum temperature is up to 400c in Apr-May and average minimum temperature is 90c in the month of Dec-Jan. Potential area in Kharif season. Black soils to medium light soils with rainfall 650-1000mm. Sugarcane, groundnut, soybean, sorghum, rajma, turmeric ginger and paddy are major Kharif crop and sorghum, wheat & gram are rabi crops. Vegetable crops are also potential crops of this zone
4	SCARCITY ZONE (DPEP)	This zone consists of Khatav, Man, Phaltan, and Khandala & Koregaon Tahsil. This zone receives 500 to 600 mm annual rainfall. Very low rainfall and hot arid temp is typical characteristic. Rainfall observed in two spell mainly in June –July and Sept. Average Maximum temp up to 410c & min temp 14-150c. Evaporation rate 1800mm per year in this area. Soils of this zone are medium to light. Pearl Millet, sorghum and pulses are major Kharif crop in this region while sorghum, gram &wheat are rabi crops.
5	ANNUAL IRRIGATED	South eastern part of Phaltan, Middle arts of Karad along with Krishna Koyna river, Central part of Satara & Wai. Black fertile soils and 650 mm to 1000 mm annual rainfall are the characteristics of this zone. Sugarcane, groundnut, soybean and turmeric are major Kharif crop and wheat, summer groundnut & gram are rabi crops. Vegetable crops are also potential crops of this zone

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Medium black to Deep black	These are found along the belts of the Krishna and Koyna rivers. They are brownish to dark brown in colour. The chemical analysis of the soil shows that the soil is rich in lime. At certain places like Phaltan, a clear band of lime is found at a depth of a few feet in the soil. The nitrogen content of the soil is fairly good and the organic matter content of the soil is high. The soil is rich in clay content and colloidal complex is fully saturated with exchangeable bases. This is due to dry spell of monsoon. Medium black soil is also to be found in Koregaon, western part of Vaduj, Khandala Taluka and in the northern part of the Phaltan Taluka along the Nira River. The soils in the eastern part of the taluka are deep to medium black. Crops like groundnut, wheat, Sorghum (rabi) and, at certain places, where irrigation facilities are available, sugar-cane and turmeric are taken.	42800
2	Lighter soils	Light soil of the district is locally called as malran or murum mal and brown in colour. These are hard and rocky and are commonly found in the planes on the eastern side. These are also to be found on the slopes of the hillocks situated in the eastern side. These soils are well-drained, light in nature and sandy loam in texture. They are rich in lime but shallow in depth. The chemical analysis of the soil indicates that they are deficient in fertility constituents like nitrogen, organic carbon and phosphorus. However, the potash contents of the soils are fairly high. The clay complex of the soils is poor in exchangeable bases. Therefore, the soils in this category yield good produce only if bulky manures and heavy fertilizers are applied and proper irrigation is provided. At certain places, where sufficient water is available, paddy crop is also taken. However, the soil is better suited for Pearl Millet.	574000

3	Lateritic soils	Lateritic soils are red in colour and are mainly found in Mahabaleshwar hills and along the whole mountain range comprising the entire Koyna valley On account of the red colour of the soil, they are locally known as tambad mati at certain places blending of the black soils with laterite or red soils has taken place. On account of heavy rainfall in this region, these soils are subjected to heavy leaching and a high degree of erosion. The reason for the red colour of the soil is the high content of Iron Oxides in the sesqui-oxides of these soils. The depth of the soil varies from 1' to 10'. The chemical analysis of these soils indicates that they are rich in clay and clay-loam in texture. They are rich in nitrogen but poor in organic matter. The main crops taken on them consist of the rice and hill millets like ragi, vari and nachni. At certain places, rice is taken by adopting the kumri cultivation. At places with high altitudes, especially around Mahabaleshwar, fruits like strawberries, goose-berries which require cold climate are also grown.	425400

2.4. Area, Production and Productivity of major crops cultivated in the area of jurisdiction of KVK (2023)

S. No	Crop	Area (ha)	Production (000 T)	Productivity (Kg/ha)
	Major Field crops			
1.	Rice Khrif	477.39	898.37	1881.85
2.	Jowar Khrif	119.75	156.08	1303.36
3.	Bajara	433.92	287.44	662.42
4.	Ragi	42.54	39.16	920.66
5.	Maize Kharif	211.51	413.21	1953.61
6.	Cereals others Kharif	2.98	1.49	500.00
7.	Cereals Total Kharif	1288.09	1795.75	1394.12
8.	Tur	10.07	1.89	187.50
9.	Mung	115.85	106.78	921.72
10.	Udid	41.09	35.21	856.85
11.	Pulses Other Kharif	445.73	579.45	1300.00
12.	Pulses Total Kharif	612.74	723.33	1180.48
13.	Food Grain Total Kharif	1900.83	2519.08	1325.25
14.	Groundnut Kharif	317.38	393.52	1239.51
15.	Sesamum Kharif	0.71	0.28	400.00
16.	Nigerseed	4.63	1.85	400.00
17.	Sunflower Kharif	2.98	1.79	600.00
18.	Soybean Kharif	871.67	1874.36	2150.31
19.	Oilseed Other Kharif	0.51	0.26	500.00
20.	Oilseed Total Kharif	1197.88	2272.06	1896.74
21.	Sugarcane Crushing	1166.25	134118.75	115.00
22.	Cotton Lint	5.70	7.28	217.00
23.	Rai Jowar	1102.34	1362.49	1236.00
24.	Wheat	427.33	982.86	2300.00
25.	Maize Rabi	194.87	623.58	3200.00
26.	Cereals Other Rabi	1.68	0.80	475.00
27.	Cereals Total Rabi	1726.22	2969.23	1720.37
28.	Gram	335.44	368.98	1100.00
29.	Safflower	0.76	0.34	450.00
30.	Linseed	00.00	00.00	00.00
31.	Sesamum Rabi	0.50	0.45	900.00
32.	Sunflower Rabi	0.91	0.23	250.00
	Major Horticultural crops			
33.	Potato	4805	7207	1500
34.	Onion	6549	60187	9190
35.	Tomato	1164	8286	7119
36.	Chilli	929	2775	2987
37.	Brinjal	753	7294	9687
38.	Pea	336	1017	3027
39.	French bean	5746	6229	1084
40.	Coriander	2834	804	284
41.	Fruits			
42.	Mango	879	7559	8600
43.	Banana	244	2693	11037
44.	Guava	319	3782	11856

45.	Pomegranate	984	9381	9534
46.	Grapes	232	3999	17237

Source:

2.5. Weather data (2023)

Month	Normal RF(mm)	Normal Rainy days (number)	Temperature (^{0} C)		Relative Humidity (%)	
			Maximum	Minimum	Maximum	Minimum
January-23	0	0	32.22	19.45	89.74	76.09
February-23	0	0	33.46	19.85	90.28	75.75
March-23	0	0	35.77	20.17	89.96	76.16
April-23	12	2	36.2	20.14	87.6	83
May-23	0	0	38	20.36	87.22	83.58
June-23	7	2	39.03	20.64	80.03	76.66
July-23	151	15	29.03	20.15	88.38	76.22
August-23	10	2	29.41	20.48	92.41	81.90
September-23	12	2	30.03	20.50	90.66	64.1
October-23	149	4	33.09	20.88	83.48	72.54
November-23	54	3	32.5	19.58	83.3	72.8
December-23	0	0	31	17.52	83.19	69.74
Total	395	30	-	-	-	-

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

Category	Population (No)	Production	Productivity
Cattle			
Crossbred			
Indigenous			
Buffalo			
Sheep			
Goats			
Pigs			
Crossbred			
Indigenous			
Rabbits			
Poultry			
Hens (*Crossbred)*			
Desi			
Fish (Reservoir)			

2.7. Details of Operational area / Villages

Taluka / Block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas

Patan	Bhairewadi (2020)	Paddy, Finger millet, wheat, Mango, Dairy, Poultry	Low productivity of cost and animals Low yields of paddy finger millet due to use of imbalance nutrients lack of knowledge about Plant Protection Very limited irrigation water for rabi only	Integrated nutrient management in paddy and finger millet Integrated pest management Livestock and poultry management empowerment of rural youth and women
Karad	Rethare kh (2018)	Major crops: Groundnut, Paddy, Sorghum, Soybean, Wheat, Gram, Mango Enterprises: Dairy Goatary Poultry	Low productivity of crops & animals Low yield due to imbalance use of nutrients. Low yield in Groundnut due to use of local variety and disease Low quality of local mango Unemployment	Improving the productivity of Paddy, Groundnut, Wheat Jowar and Red gram Integrated Nutrient Management in different crops Integrated Pest Management in Gram and Rice Livestock and Poultry management Empowerment of Rural Women & Youth, Dissemination of new improved Varieties and technologies
Karad	Nigadi (2018)	Major crops: Soybean, Groundnut, Sorghum, Sugarcane, Wheat, Gram, Ginger, Turmeric Enterprises: Dairy Goatary Poultry	Low productivity of crops & animals Low yield due to imbalance use of nutrients. Low yield in Groundnut & Soybean due to use of local variety and disease Low yield of Rabi sorghum due use of local variety Water scaracity Unemployment	Improving the productivity of Soybean, Groundnut, Wheat Jowar and gram Integrated Nutrient Management in different crops Integrated Pest Management in Gram & Pigeon pea Livestock and Poultry management Soil and water conservation practices Empowerment of Rural Women & Youth, Dissemination of new improved technologies
Khatav	Kumthe Nagache (2019)	Major crops: Maize, Onion, Sorghum, Wheat, Gram, Pea Enterprises: Dairy Goatary Poultry	Low productivity of crops & animals Low yield due to imbalance use of nutrients in maize. Low yield of Rabi sorghum due use of local variety Water scaracity Unemployment	Improving the productivity of Maize, Wheat Jowar and gram Integrated Nutrient Management in different crops Integrated Pest Management in Gram & Pigeon pea Livestock and Poultry management Soil and water conservation practices Empowerment of Rural Women & Youth, Dissemination of new improved technologies
Karad	Mundhe (2020)	Major crops: Sugarcane, Soybean, Groundnut, Wheat, Paddy & Gram, Enterprises: Dairy Goatary Poultry	Low productivity of crops, animal, Low yield in soybean & wheat due to Rust and local variety Low yield of sugarcane due to close planting, imbalance fertilizer use & poor drainage. Low yield in Gram due to Pod borer Poor drainage, Unemployment	Improving the productivity of Sugarcane, Soybean, Paddy, Gram, Wheat, Gr. nut Introduce New varieties of Soybean, Wheat and Rabi Jowar. INM in sugarcane Improve soil drainage Livestock and Poultry management Empowerment of Rural Women, Youth, Dissemination of new improved technologies

2.8. Priority thrust areas:

Crop/ Enterprise	Thrust area
SUGARCANE	Use of Integrated Nutrient Management – Trash management in Ratoon, Use of NPK briquette & fertilizers as per STCR
	Use of Biofertilizer& Green Manuring crops (Organic inputs)
	Introduce wide row and single eye bud planting in sugarcane (Nursery management and ICM
	Use of Drip & Long rows method of irrigation (Micro irrigation)
	Create awareness for maintenance of good quality planting material on its own farm and promote low cost sugarcane nursery techniques (Farm mechanization)
	Create awareness about Pest and Disease management especially with IPM technology (IPDM)

SOYBEAN	Introduction of new moderately rust resistant KDS-726 (Varietal evaluate)
	Create awareness for use of recommended Bio fertilizer for seed treatment, Use of Balance fertilizers & also use of spray grade fertilizer (INM)
	Use of growth retardant like Lihocine in heavy black soils (ICM)
	IPM of Spodopteraleutera and other pests and diseases (IPM)
GROUNDNUT	Introduction of new varieties likeKDG-128, JL – 286, & JL-501 (Varietal evaluate)
	Use of BBF method of planting (ICM)
	Use of Integrated Nutrient Management in Groundnut (INM)
	Control of Tikka, Rust and other diseases in Kharif Groundnut by following IDM technology (IPDM)
RICE	Use of Four Fold Rice planting method (Resource conservation technology)
	Use of Integrated Nutrient Management by promoting use of Urea DAP & NPK Briquette. (IPM)
	Proper management of water & use of IPM technique control of disease pest. (Water management)
WHEAT	Use of correct planting method with recommended seed rate and timely sowing.(ICM)
	Use of Integrated Nutrient Management in Wheat. (INM)
	Introduction of new rust resistant and high yielding varieties like Trimbak, Samadhan, MACS-6222 (Varietal evaluate)
	Biological control Wheat aphids and rust management.(Biological control of pest and disease)
RABI SORGHUM	Introduction of new varieties as per soil type like PhuleVasudha, PhuleAnuradha, PhuleRevati, PhuleSuchitra etc. (Varietal evaluate)
	Create awareness for in situ water conservation & provide two protective irrigations. Zero tillage sowing for water conservation and more yield. (Resource conservation technology)
	Use of Integrated Nutrient Management in Rabi Jowar (INM)
	Management of Shoot fly and smut diseases.(IPM)
GRAM	Use of new varieties like Digvijay& Vijay (Varietal evaluate)
	IPM in Gram for control of pod borer and wilt (IPM)
	Change the existing method of planting with ridges & furrow and BBF sowing, use of Sprinkler irrigation method. Create awareness for proper water management in Gram (ICM)
	Use of Integrated Nutrient Management, use potash with FYM and foliar nutrient application (INM)
Redgram	Introduction of new high yielding improved varieties like Vipula (Varietal evaluate)
	Use of Integrated Pest Management and promote Red gram intercropping in other crops (IPM)
BANANA	INM, Foliar spray with PDH and 00:00:50 and Bunch feeding technique for increase bunch weight, Proper Fertigation technique, Management of pest and diseases, Banana Marketing etc (ICM)
Mango	INM, ICM, IPM (Rejunation of old orchid)
Potato & PEA	Seed treatment, INM (IPDM)
Poultry, Dairy and goatery	Impart the knowledge regarding Dairy &Goatary farming, introduction of Giriraja and vanraja poultry breeds in backyard and supply of day old chicks. (Poultry management, goat and sheet management)
GENERAL	Improve drainage by use of Mole plough (Reclaimaty of problematic solution)
	Reclamation of Problematic soils. Balance use of Fertilizers on the basis of soil test report. Judicial use of water for Irrigation

	Recycling of Organic Farm Waste &Vermicompost production (Vermicompost production)
	Use of different weedicides & cultural practices for weed control and to overcome labour shortage problem (INM)
	Adoption of recommended crop rotation practices (IFS), crops diversification
	Improve quality and quantity production in greenhouse
	Integrated pest management especially Biological control (IPM)
ENTERPRISE	Promote use of Zero tillage and BBF sowing, Groundnut Decorticator, Groundnut stripper, twin wheel hoe, vaibhav sickle, Laxmi sickle, Okra mitten, and maize sheller like Location specific Drudgery Reduction technology.
	Improve the self employment by imparting skills through vocational training.

3. TECHNICAL ACHIEVEMENTS

3.1. A. Details of target and achievements of mandatory activities

OFT				**FLD**			
1				**2**			
Number of OFTs		**Number of farmers**		**Number of FLDs**		**Number of farmers**	
Targets	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
10	11	70	92	16	16	208	204

Training				**Extension Programmes**			
3				**4**			
Number of Courses		**Number of Participants**		**Number of Programmes**		**Number of participants**	
Targets	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
72	100	2160	3856	200	365	4000	12539

Seed Production (Qtl.)		**Planting materials (Nos.)**	
5		**6**	
Target	**Achievement**	**Target**	**Achievement**

Livestock, poultry strains and fingerlings (No.)	**Bio-products (Kg)**
7	**8**

Target	Achievement	Target	Achievement

3.1. B. Operational areas details during 2023

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)*
1	Sugarcane	Faulty interculturing operations in ratoon sugarcane. No sett treatment. Lack of knowledge of INM, IPM		Nigadi (Karad)	FLD, training on zero tillage ratoon management
		Low yield due to improper nutrient management Loss of organic matter Less nutrient use efficiency Low yield		Mundhe (Karad)	OFT- 14ssessment on sugarcane
2	Gram	lack of awareness about Varieties, INM, IPM, INM and latest technologies		Targaon (Koregaon)	FLD on ICM Package, Training on Improved production in Gram
		1. Heavy attack of pod borer Helicoverpa armigera and Gram wilt caused by Fusarium oxysporum f.sp. ciceri 2.. Unawareness about the IPM practices		Mundhe (Karad)	Training programme on IPM and FLD on Trichoderma seed treatment for wilt management
		Storage losses because of stored grain pests			Training on Stored grain pest management
		1.Imbalance use of fertilizer 2.Less tillering and improper grain filling 3.Low use of fertilizers. 4. Unawareness of irrigation and spraying.		Nigadi (Karad)	FLD on Nutient Mangement in Gram
3	Wheat	Shattering, small grain size and low yield. Problems observes in existing Trimbak variety		Vihe (Nigadi)	OFT Demonstration of P. Samadhan, training on GAP
		Infestation of aphids, jassids and Pink stem borer in early stage of crop growth		Tondoshi (Patan)	FLD and training for effective management of Wheat aphids, jassids and stem borer
		1.Imbalance use of fertilizer 2.Less tillering and improper grain filling 3.Low use of fertilizers.		Nigadi (Karad)	FLD on Nutient Mangement in Wheat
4	Groundnut	Low plant population & poor drainage, aeration and land preparation and use of more N fertilizers		Mundhe (Karad)	FLD and Training on BBF Method of planting and INM
		1. Incidence of Collar rot, stem rot Tikka and Rust diseases in Kharif Groundnut 2. Lack of Knowledge and management practices 3. Lack of seed treatment			OFT Assessment on Seed treatment in groundnut Training on IDM in Kharif Groundnut
5	Soybean	lack of awareness about Varieties, INM, IPM, and latest technologies		Vihe (Patan)	OFT on Phule Sangam, Cluster FLD on ICM Package
6	Nagli (Finger Millet)	1. Incidence of blast. 2. Lack of Knowledge of symptoms and management of the diseases..		Bhairewadi (Patan)	FLD and Training
		Nutrient deficiency and nutrient loss leads to low yield		Bhairewadi (Patan)	OFT Use of NPK Briquettes

7	Onion	Incidence of Thrips and Blotch		Khatav	FLD and Training
		Less use of N fertilizers Low yield due to imbalance nutrient management		Kumthe (khatav)	FLD on Onion STCR
8	Paddy	Use of local variety. Imbalance use of fertilizer		Dhoroshi (Patan)	OFT on improved variety Training and FLD on Four Fold Technology and INM
		Losses in yield due to incidence of caseworm		Bhairewadi (Patan)	OFT assessment and training
		Low yield due to improper method of planting, use of old varieties and improper water management & loss of nutrient by leaching		Bahirewadi (patan)	Training on four fold method of rice planting, & FLDs on INM with Briquette
9	Sorghum	Lack of Knowledge about new varieties, no in-situ moisture conservation, imbalance fertilizer and close spacing		Nigadi (Karad)	OFT on intercropping of Sorghum + Bengal gram (3:3 row) Training on Rabi crop production in Sorghum FLD Demonstration of ICM package, Training on Sorghum production technology
10	Maize	Low yield due to improper nutrient management. Informal and uneven size and shape of cob.		Surupkhanwadi (Man)	OFT- Assesment on Maize and training
11	Ginger	1. Lack of knowledge about IPM		Nigadi (karad0	OFT assessment and Training on IPM of white grub
12	Okra	1. Lack of knowledge of new virus resistant variety		Mhopre (Karad)	OFT assessment and training
13	Tomato	Less use of nitrogenous fertilizers and lack of knowledge of balanced use of fertilizers		Kimthe (khatav)	OFT assessment on STCR
14	Poultry	Rearing of deshi poultry birds which have low egg production, less weight gain than improved poultry bird		Bhairewadi (Patan)	FLD, training
15	Dairy cows	Use of local and low quality feed and fodder. Poor health and low productivity		Rethare (Karad)	FLD, training, Method Demonstration
16	Goat	Lack of management		Nigadi (Karad)	Training
17	Feed and fodder technology	Unavailability of green fodder all round the year			Training

* Support with problem-cause and interventions diagram

3.2. Technology Assessment (Kharif 2023, Rabi 2022-23, Summer 2023)

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management	2								1	03
Varietal Evaluation		2	2		2					06

Integrated Pest Management		1								01
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					1					01
Storage Technique										
Mushroom cultivation										
Total	2	3	2	0	3	0	0	0	1	11

A2. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds	0	0	0	0	0	0
Nutrition Management	0	0	0	0	0	0
Disease of Management	0	0	0	0	0	0
Value Addition	0	0	0	0	0	0
Production and Management	0	0	0	0	0	0
Feed and Fodder	0	0	0	0	0	0
Small Scale income generating enterprises	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Integrated Nutrient Management	Ginger	Assessment of Fertigation Schedule of Ginger	07	07	2.5
	wheat	Spraying of 19:19:19 NPK on wheat	13	13	2.5
	Wheat	Assessment of STCR in Wheat	13	13	2.5
Varietal Evaluation	Groundnut	Assess the performance of Phule Dhani variety of Groundnut	07	07	2.5
	Gram	Assess the Performance of New Gram variety (Phule Vikram)	07	07	2.5
	French bean	Assessment of Phule Rajma Variety of French bean in Kharif season	07	07	2.5
	Chickpea	To Assess the performance of Phule Vikarm Var. of Chickpea	07	07	2.5
	Fenugreek	Assessment of Performance of Fenugreek variety phule kasturi	07	07	2.5
	Groundnut	Assessment of new Groundnut variety Phule Dhani	07	07	2.5
Integrated Pest Management	Groundnut	Assessment of Efficiency evaluation of EPN *H. Indica* against whitegrub in groundnut	07	07	2.5
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Farm Machineries		Use of Seedling transplanter for drudgery reduction	10	10	-
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

B. 2. Technologies assessed under Livestock & fishery assessment

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Health Management				
Dairy Management				
Nutrition management				
Disease management				
Feed and fodder management				
Processing & Value addition				
Production and management				
Composting fish culture				
Small scale income generating enterprises				
Fish production				
Other				
Total				

B.3 Technologies assessed under other enterprises

Name of Enterprises	Name of the technology assessed	No. of trials	No. of farmers
Mushroom			
Apiary			
Vermicompost			
Tailoring			
Nutrition Garden			
Nursery Management			
Production and Management			
Eentrepreneurship development			
Engegy consrvation			
storage techniques			
House hold food security			
organic farming			
mechanization			
Bee keeping			
Seed production			
post-harvest management			
other			

B 4.Technologies assessed under Women empowerment assessment

Name of Enterprises	Name of the technology assessed	No. of trials	No. of farmers
Drudgery Reduction			
Entrepreneurship development			
Health and Nutrition			
value addition			
Kitchen gardening			
nutrition security			
other			

C. 1. Results of Technologies Assessed

Results of On Farm Trial – 1

Crop/ enterprise	Farming situation	**Problem definition**	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Groundnut	Irrigated	Farmers grows old varieties of groundnut, that have low yield. Susceptible to incidence of pest and diseases.	To assess the performance of Phule Dhani variety of Groundnut (JL-1085).	7	T3-Technology assessed-New variety PhuleDhani (JL-1085).	1) Average no. of pods/ plant	31	PhuleDhani variety has recorded 27.57 % more yield over existing variety JL-24 and 16.47 % more yield on TAG-24 Variety	Crop growth of PhuleDhani was excellent and produced more yield having bold size grains. And less bitter taste.	-	-

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) ; JL-24	MPKV Rahuri	17.84	q/ha	24383	1.29
Technology option 2: TAG-24	PDKV Akola	19.54	q/ha	32542	1.38
Technology option 3: JL-1085	MPKV Rahuri	22.76	q/ha	51196	1.59

C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

Details of On Farm Trial.

1 Title of Technology Assessed :

To assesss the performance of Phule Dhani variety of Groundnut (JL-1085).

2 Problem Definition - Farmers grows old varieties of groundnut, that have low yield. Susceptible to incidence of pest and diseases.

3 Details of technologies selected for assessment :New groundnut variety PhuleDhani(JL-1085).

4 Source of technology - MPKV, Rahuri.

5 Production system and thematic area - Cultivation of groundnut under irrigated situation on medium to heavy soil with protective irrigation facility.

Varietal Evaluation.

6 Performance of the Technology with performance indicators :

Particulars	Unit	T1	T2	T3
1) Average no. of Pods/ plant	Number	23	26	31
2) Average weight of 100 grains	Number	37.28	41.45	45.63
3) Average grain yield qtl/ha	Qtl/ha	17.84	19.54	22.76
4) B:C ratio		1.39	1.38	1.59

Input cost of Farmer (Control) Rs./ha	**Input cost of demonstration Rs./ha**	**Additional cost incurred for new technology Rs./ha**	**Farmers gross income Rs./ha**	**Farmers gross income after use of new technology Rs./ha**	**Farmers net income after use of new technology Rs./ha**
82657	85364	2707	107040	136560	29520

7. Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques :

Farmers were contented after observing yield and yield contributing characters of phuleDhani variety of groundnut. bold grain size, vigorous growth, resistant to tikka. As peryield character, farmers gave first ranking to PhuleDhani.

8 Final recommendation for micro level situation.

New variety PhuleDhani recorded more yield, and yield attributing characters over existing variety JL-24. Need to be demonstrated on large acreage under FLD.

9 Constraints identified and feedback for research

Farmers generally demand for table purpose groundnut varieties. As they prefer sweet taste kernels for home consumption. PhuleDhani is less bitter in taste having good yield.

10 Process of farmers participation and their Reaction :

Farmers actively participated in training, and implementation of assessment trial. PhuleDhani gave more grain yield. bold grain size, resistant to tikka than existing variety JL-24 and TAG-24.

Results of On Farm Trial – 2

Crop/ enterprise	Farming situation	**Problem definition**	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Bengal gram	Irrigated	Use of old low yielding varieties, drilling of without proper spacing and nutrient management. Mechanical harvesting not suitable due to dwarf varieties .	To assesss the performance of PhuleVikram variety of Bengal gram under irrigated condition.	7	T3-Technology assessed-New variety PhuleVikram	1) Average no. of pods/ plant	223	PhuleVikram variety has recorded 20.59 % more yield over existing variety Vijay and 09.40 % more yield on JAKI-9218 Variety	Crop growth of PhuleVikramwas excellent and produced more yield having bold size grains. Suitable for mechanical harvesting.	-	-

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) ; Vijay	MPKV Rahuri	20.54	q/ha	33725	1.48
Technology option 2: JAKI-9218	PDKV Akola	22.64	q/ha	43326	1.62
Technology option 3: PhuleVikram	MPKV Rahuri	24.77	q/ha	60100	1.87

C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

Details of On Farm Trial.

1 Title of Technology Assessed - To assesss the performance of PhuleVikram variety of Bengal gram.

2 Problem Definition - Use of old low yielding varieties, drilling of without proper spacing and nutrient management. Mechanical harvesting not suitable due to dwarf varieties.

3 Details of technologies selected for assessment : New Bengal gram variety PhuleVikram.

4 Source of technology - MPKV, Rahuri.

5 Production system and thematic area- Cultivation of Bengal gram under irrigated situation on medium to heavy soil BBF plantation followed. Varietal Evaluation.

6 Performance of the Technology with performance indicators :

Particulars	Unit	T1	T2	T3
1) Average no. of Pods/ plant	Number	158	192	223
2) Average Plant height	cm	76	79	84
3) Average grain yield qtl/ha	Qtl/ha	20.54	22.64	24.77
4) B:C ratio		1.48	1.62	1.87

Input cost of Farmer (Control) Rs./ha	**Input cost of demonstration Rs./ha**	**Additional cost incurred for new technology Rs./ha**	**Farmers gross income Rs./ha**	**Farmers gross income after use of new technology Rs./ha**	**Farmers net income after use of new technology Rs./ha**

68975	68750	225	102700	128850	26150

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :

Farmers were contented after observing yield and yield contributing characters of phuleVikram variety of Bengal gram. bold grain size, vigorous growth, resistant to Wilt and easy for mechanical harvesting. As peryield character, farmers gave first ranking to PhuleVikram.

8 Final recommendation for micro level situation.

New variety PhuleVikram recorded more yield, and yield attributing characters over existing variety Vijay. Need to be demonstrated on large acreage under FLD.

9 Constraints identified and feedback for research

Canopy of PhuleVikram is larger than other varieties hence difficult to harvest by means of mechanical harvester if grown as intercrop.

10 Process of farmers participation and their Reaction :

Farmers actively participated in training, and implementation of assessment trial. PhuleVikram gave more grain yield. bold grain size, resistant toWilt than existing variety Vijay and JAKI-9218.

Results of On Farm Trial – 3

Crop/ enterprise	Farming situation	**Problem definition**	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Groundnut	Rainfed	Losses in groundnut due to incidence of white grub.	Efficacy of *Heterorabditis indica* against the white grub, *Holotrichia serrata* (Fab)	08	T3- Drenching of *Heterorabditis indica*	1. white grub Infestation (%)	4.76	Additional Cost - Rs. 520/Ha. Additional Income – Rs. 19760 / Ha	Farmers accepted effective method of white grub was achieved	-	-
						2. Number of pods/plant	34				

		The excessive use of chemical insecticides on groundnut crops has raised concerns about environmental and human health impacts	on groundnut under field condition		@ 4kg/acre.	3. 100 grain test weight in (gram)	49		through the management using *Heterorabditis indica*, eliminating the need for chemical insecticide spray.		
						4. Yield qt/ha	21.69				
						5. B:C ratio:	1.69				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) (spraying conventional insecticides general)	-	18.31	Q/ha	33404	1.44
Drenching of *Metarhizium anisopliae*@ 25kg/ha.	Visalakshi et al, 2023 (Published article)	20.73	Q/ha	47404	1.62
Technology option – Drenching of *Heterorabditis indica* @ 4kg/acre.	ICAR-SBI, 2021	21.69	Q/ha	53164	1.69

1 Title of Technology Assessed: Drenching of *Heterorabditis indica* against the white grub, *Holotrichia serrata (*Fab) on groundnut under field condition

2 Problem Definition: Losses in groundnut due to incidence of white grub. The excessive use of chemical insecticides on groundnut crops has raised concerns about environmental and human health impacts

3 Details of technologies selected for assessment: Drenching of *Heterorabditis indica* @ 4kg/acre

4 Source of technology: ICAR-SBI, 2021

5 Production system and thematic area: Integrated pest management

6 Performance of the Technology with performance indicators

Particulars	Unit	T1	T2	T3
white grub Infestation	(%)	15.7	8.33	4.76
Number of pods/plant	Number	25	31	34
100 grain test weight	(gram)	43	47	49
Yield	qt/ha	18.31	20.73	21.69
B:C ratio		1.44	1.62	1.69

Input Cost of Farmer (Control)	**Input cost of demonstration**	**Additional cost incurred for new technology**	**Farmer's gross income**	**Farmer's gross income after use of new technology**	**Net income farmer after use of new technology**
76456	76976	520	109860	130140	53164

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques:
Farmers accepted the technology. Timely availability of entomopathogenic nematode requires advance planning. Saving of chemical pesticides without reduction in yield was appreciated by the participated farmers. Farmers gave first rank to drenching as it is very easy method and less time consuming and less laborious methods as compared to others.

8 Final recommendation for micro level situation

Drenching with *Heterorabditis indica* (EPN) @ 4 kg/acre is very effective.

9 Constraints identified and feedback for research

Ensuring the timely availability of an efficient strain of entomopathogenic nematode is crucial for the success of the recommended approach.

10 Process of farmers participation and their reaction

Conducted group discussions and comprehensive training on drenching technology for participating farmers, instilling confidence through practical demonstrations of the drenching method.

Results of On Farm Trial 04

Crop/ enterprise	Farming situation	**Problem definition**	Title of OFT	No. of Trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Paddy	Rainfed	Losses in rice yield due to incidence of leaf folder in high rainfall area	Management of leaf folder in Rice	09	Two spraying of Chlorantraniliprole 18.5% SC @ 3 ml/10 lit (First spraying at ETL & 2nd spraying 15 days after first spraying.)	1. leaf folder infestation (%)	1.11	Additional Cost – Rs. 447.00 Additional Income – Rs 14755 / ha	The farmers were delighted to acquire knowledge and experience in utilizing a single pesticide for effective pest management	-	-
						2. Average no. of grains/ earhead	189				
						3. Average no. of tillers/ plant	31				
						4. Yield (q/ha)	47.69				
						5. B:C Ratio	1.76				

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18

Technology option 1 (Farmer's practice) (spraying conventional insecticides general)	-	40.78	Qtls / Ha	30457	1.51
Chlorpyriphos 20% EC @ 30 ml/15 lit. of water	PAU Ludhiana, 2023	45.85	Qtls / Ha	41164	1.69
Technology option 2- Spraying of Chlorantraniliprole 18.5% SC @ 3 ml/10 lit.	MPKV Rahuri, 2022	47.69	Qtls / Ha	45212	1.76

Details of on farm trial.

1. Title of Technology Assessed : Management of leaf folder in rice using new chemical insecticide
2 Problem Definition: Losses in paddy yield due to incidence of leaf folder under annual irrigated zone area.
3 Details of technology selected for assessment:

   Spraying of Chlorantraniliprole 18.5% SC @ 3 ml/10 lit.. First spraying at ETL (10% leaf damage) and 2nd spraying 15 days after first spraying.
4 Source of technology: Mahatma Phule Agricultural University, Rahuri, 2022
5 Production system and thematic area:

   Cultivation of paddy in sub mountain zone under annual irrigated situation with annual rainfall of less than 750 mm. leaf folder incidence in vegetative and grand growth stage (tillering) of crop. Farmers in the area are totally unaware about new chemistry molecules of pests and diseases. More dependency on local chemical pesticides.

   Thematic area – Integrated pest management.
6 Performance of the Technology with performance indicators:

Particulars	Unit	T1	T2	T3
leaf folder Infestation	(%)	8.17	2.17	1.11
Average no. of grains/ earhead	Number	164	181	189
Average no. of	Number	22	28	31

tillers/ plant				
Yield	q/ha	40.78	45.85	47.69
B:C ratio		1.51	1.69	1.76

Input Cost of Farmer (Control)	**Input cost of demonstration**	**Additional cost incurred for new technology**	**Farmer's gross income**	**Farmer's gross income after use of new technology**	**Net income farmer after use of new technology**
59259	59706	447	89716	104918	45212

If control and assessment trial results were compared, there is remarkable difference in leaf folder infestation in paddy. In new molecules assessed Chlorantraniliprole spraying, objective was to promote integrated pest management of crops.

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

Farmers were pleased after observing results of integrated pest management of leaf folder in paddy. Farmers were doubtful about timely availability of new molecules insecticides. As per availability they have given conditional first ranking if readily available. Second ranking to Chlorpyriphos and biopesticides.

8 Final recommendation for micro level situation:

Spraying of Chlorantraniliprole 18.5% SC @ 3 ml/10 lit. First spraying at ETL (10% leaf damage) and 2nd spraying 15 days after first spraying.

9 Constraints identified and feedback for research

Timely availability of new molecules insecticides at local place is constraint observed in the adoption of new technology.

10 Process of farmers participation and their reaction:

Facilitated a group discussion to promote awareness regarding the application of Chlorantraniliprole 02 sprayings for pest management, aiming to minimize the overuse of conventional pesticides. Farmers expressed enthusiasm and anticipation as they eagerly awaited the tangible results of their efforts.

Results of On Farm Trial – 05

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Rajma	Rainfed	Farmers grows old varieties of French bean that have low yield. Susceptible to incidence of pest and diseases.	Use of Phule Rajma variety of French bean in kharif season	7	T3- Technology assessed- New variety Phule Rajma	1) Average no. of pods/ plant	28.7	Phule Rajma variety has recorded 21.25 % more yield over existing variety Varun and 30.24 % more yield on Local Variety	Crop growth of Phule Rajma was excellent and produced more yield having bold size grains.	-	-

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) ; Local Variety	Local	10.45	q/ha	24750	1.42
Technology option 2: Varun	MPKV, Rahuri	11.22	q/ha	28392	1.46
Technology option 3: Phule Rajma	MPKV Rahuri	13.61	q/ha	45164	1.71

C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

Details of On Farm Trial.

1 Title of Technology Assessed :

Use of Phule Rajma variety of French bean in kharif season.

2 Problem Definition

Farmers grows old varieties of French bean, that have low yield. Susceptible to incidence of pest and diseases.

3 Details of technologies selected for assessment :

New French bean variety Phule Rajma.

4 Source of technology :

MPKV, Rahuri.

5 Production system and thematic area :

Cultivation of French bean under raifed situation on medium to heavy soil. Varietal Evaluation.

6 Performance of the Technology with performance indicators :

Particulars	Unit	T1	T2	T3
1) Days to maturity	days	88.23	79.61	80.12
2) No. of seeds per pod		4.52	5.04	5.19
3) No of pods per plant		21.4	26.3	28.7
4) Yield	q/ha	10.45	11.22	13.61
5) B:C ratio		1.42	1.46	1.71

Input cost of Farmer (Control) Rs./ha	Input cost of demonstration Rs./ha	Additional cost incurred for new technology Rs./ha	Farmers gross income Rs./ha	Farmers gross income after use of new technology Rs./ha	Farmers net income after use of new technology Rs./ha
58850	63716	4866	83600	108880	25280

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :

Farmers were contented after observing yield and yield contributing characters of phule Rajama variety of French bean.

Bold grain size, vigorous growth, resistant to fusarium wilt and CBMV were observed. As per yield character, farmers gave first ranking to Phule Rajama.

8. Final recommendation for micro level situation.

New variety Phule Rajamarecorded more yield, and yield attributing characters over existing variety Varun. Need to be demonstrated on large acreage under FLD.

9 Constraints identified and feedback for research

Farmers generally demand for table purpose French bean varieties.

10 Process of farmers participation and their Reaction :

Farmers actively participated in training, and implementation of assessment trial. Phule Rajamagave more grain yield. bold grain size, resistant to fusarium wilt and CBMV than existing Varun and Local.

Results of On Farm Trial 06

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
		Conventional transplanting is manual seedling transplantation performed by hand in bending posture Back pain and leg pain, repetitive strain, time consuming	**Assessment of Seedling transplanter for vegetable (seedlings) plantation**	Seven	Seedling Transplanter for vegetable plantation	1. Area covered by worker (Sq.mt/hr) 2. Labour Requirement (Women/100 seedlings) 3. Percent reduction in cost of cultivation	1)220.52 by traditional practice and 615.42 by seedling transplanter 2) 17 labors by traditional practice and 4.75 labours by seedling transplanter 3) 72.05%	Area covered by labour by using seedling transplanter is more when compared to traditional practice. This technology is great when it comes to labour consumption. Also percent reduction in the cost by use of this technology is 72.05	Technology is good	Height should be adjustable	For tall people they need to bend little bit while using seedling transplanter
		Low rate of rural women entrepreneurs High drudgery of rural farm women while milling dal	**Entrepreneurship development through table top Mini dal mill**	seven	Entrepreneurship development through table top Mini dal mill	1. Milling capacity Kg/hr 2. Milling efficiency 3.Income generated per month (Rs)	1) 45 kg/hr 2) Good 3) 15000 Rs/ month	Use of mini dhal mill is very easy and all types of dhal can be prepared in this. Milling capacity is very good.	Low space consuming and very useful technology.	Nil	Nil

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	B:C Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)	VNMKV, Parbhani, 2015				
Technology option 2	CIAE, Bhopal				
Technology option 3					

C. 2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details:

1. Title of Technology Assessed: **Assessment of Seedling transplanter for vegetable (seedlings) plantation**
2. Problem Definition: Conventional transplanting is manual seedling transplantation performed by hand in bending posture
   Back pain and leg pain, repetitive strain, time consuming
3. Details of technologies selected for assessment: Use of seedling transplanter to reduce the drudgery
4. Source of technology: VNMKV, Parbhani, 2015
5. Production system and thematic area: Location specific drudgery reduction technologies
6. Performance of the Technology with performance indicators: Milling capacity and speed both is good of this mini dhal mill
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :
8. Final recommendation for micro level situation: Yes
9. Constraints identified and feedback for research: Height of the seedling transplanter should be adjustable
10. Process of farmers participation and their reaction: Farmers participation was very good and it avoids bending posture therefore its good. But it can not be used in irrigated plot.
11. Good Quality Photo in JPG (separate with proper caption)

C. 2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details:

1. Title of Technology Assessed: Entrepreneurship development through table top Mini dal mill
2. Problem Definition: Low rate of rural women entrepreneurs. High drudgery of rural farm women while milling dal
3. Details of technologies selected for assessment: Entrepreneurship development through table top Mini dal mill
4. Source of technology: CIAE Bhopal
5. Production system and thematic area: Entrepreneurship Development
6. Performance of the Technology with performance indicators
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques
8. Final recommendation for micro level situation: Yes
9. Constraints identified and feedback for research:Nil
10. Process of farmers participation and their reaction: Farmers participation was good and it avoids bending posture therefore its good. But it can not be used in irrigated plot.
11. Good Quality Photo in JPG (separate with proper caption)

3.3. FRONTLINE DEMONSTRATION

A. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2023 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
1	Fingermillet	INM	Use of 19 :19:19 NPK On Fingermillet	FLD, Training, Input supply, Field visits, Field Days	01	13	5.0
2	Soybean	ICM	Demonstration on phuleSangam Soybean in irrigated condition	FLD, Training, Input supply, Field visits, Field Days	01	13	5.0
3	Sugarcane	INM	Use of liquid Acetobactor in Preseasonal Sugarcane crop	FLD, Training, Input supply, Field visits, Field Days	01	13	5.0
4	Sugarcane	RCT	Demonstration of Zero tillage Sugarcane ratoon management	FLD, Training, Input supply, Field visits, Field Days	01	13	5.0

B. Details of FLDs implemented during 2023 **(Kharif 2023, Rabi 2022-23, Summer 2023)** (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1.	Fingermillet	INM	Use of 19 :19:19 NPK On Fingermillet	Kharif 2023	5.0	5.0	0	13	13	
2.	Soybean	ICM	Demonstration on phuleSangam Soybean in irrigated condition	Rabi 2023	5.0	5.0	0	13	13	
3	Sugarcane	INM	Use of liquid Acetobactor in Preseasonal Sugarcane crop	Rabi 2023	5.0	5.0	0	13	13	
4	Sugarcane	RCT	Demonstration of Zero tillage Sugarcane	Rabi 2023	5.0	5.0	0	13	13	

			ratoon management							
5	Fertilizer carrying bag	Drudgery reduction technology	Use of Fertilizer carrying bag	Rabi 2022	0	0	00	10	10	
6	Twin wheel hoe	Drudgery reduction technology	Use of Twin wheel hoe	Rabi 2022	0	0	00	13	13	
7	kitchen garden	Household food security by kitchen gardening & nutrition gardening	Development of Household kitchen garden	Kharif 2022	0	0	00	10	10	
8	Spiral grain separator	Drudgery reduction technology	Use of Spiral grain separator	Kharif 2022	0	0	00	13	13	
9	Wheat	INM	Demonstration of RDF for wheat for better yield	Rabi 2022	0	0	00	13	13	
10	Finger millet	INM	Demonstration of use of Urea DAP Briquette in Nagli	Kharif 2022	0	0	00	13	13	
11	Chick pea	INM	Spraying of 13.00.45 at flowering stage	Rabi 2022	0	0	00	13	13	
12	Sugarcane	INM	Demonstration on Spraying of Multi Micro and Macro nutrient on Sugarcane	Kharif 2022	0	0	00	13	13	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Finger millet	Kharif 2023	Rainfed	Light soil	276.42	6.32	454.74	Bengal gram	10 June 2023	22 Oct 2023	1435	69
Soybean	Kharif 2023	Irrigated	Heavy	247.0	5.69	435.55	Ratoon Sugarcane	18 June 2023	10 Oct 2023	940	58
Suru Sugarcane	Rabi 2023	Irrigated	Heavy	387.32	6.64	488.27	Soybean	15 Dec 2023	Crop is standing	940	58
Ratoon sugarcane	Rabi 2023	Irrigated	Heavy	367.40	6.87	432.12	Sugarcane	10 Dec 2023	Crop is standing	940	57

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	**Use of 19:19:19 NPK as Foliar fertilizer on Finger millet** Spraying of 19:19:19 NPK foliar grade fertilizer on fingermillet at pre flowering stage resulting more yield than untreated plot.
2	**Soybean** Farmers were happy to use of Phulesangam variety as it yields higher than other varieties. Bold seeded grains.
3	**Use of Liquid Acetobacter in Suru Sugarcane (Last year)** Spraying of liquid Acetobacter in suru sugarcane resulting vigorous growth, farmers were surprised to see the results of Acetobacter on sugarcane, yield of treated sugarcane is more than conventional plot.
4	**Zero tillage sugarcane ratoon management (Last year)** After implementation of Zero tillage sugarcane ratoon management, farmers were surprised to see the results on Zero tillage sugarcane ratoonmanagement, yield of Zero tillage sugarcane ratoon management is more conventional ratoon management.

Farmers' reactions on specific technologies

S. No	Feed Back
1	**Zero tillage sugarcane ratoon management (Last year)** After implementation of Zero tillage sugarcane ratoon management, farmers were surprised to see the results on Zero tillage sugarcane ratoonmanagement, yield of Zero tillage sugarcane ratoon management is more conventional ratoon management.
2	**Use of Liquid Acetobacter in Suru Sugarcane (Last year)** Spraying of liquid Acetobacter in suru sugarcane resulting vigorous growth, farmers were surprised to see the results of Acetobacter on sugarcane, yield of treated sugarcane is more than conventional plot.
3	**Use of 19:19:19 NPK as Foliar fertilizer on Finger millet** Spraying of 19:19:19 NPK foliar grade fertilizer on fingermillet at pre flowering stage resulting more yield than untreated plot.
4	**Finger millet** Farmers were happy to use of briquettes as they have saved fertilizers, cost on fertilizer and also improves yield.
5	**spiral grain separator** Use of spiral grain separator reduces the labour requirement of grain cleaning
6	**Use of Grain pro Bags** This is mainly a drudgery reduction technology which was also usefull to save time, money and labour.

7	**Use of Fertilizer Carrying Bag (Sulbha bag)** Use of Sulbha bags reduced the operating cost of fertilizer application activity by 57.09 percent
8	**Development of kitchen garden** Development of kitchen garden showed increse in the consumption frequency of vegetables and fruits
9	**Use of 19:19:19 NPK as Foliar fertilizer on Finger millet** Spraying of 19:19:19 NPK foliar grade fertilizer on fingermillet at pre flowering stage resulting more number of tillers, more number of grains per panicle and yield than untreated plot.
10	**Finger millet** As this area is under heavy rainfall and to avoid leaching losses of nutrients the nutrients should be given in form of briquette. Briquettes application to be done at appropriate time and planning.
11	**Wheat:** Spraying of 19:19:19 can be replaced by using DAP and the accurate stage of spraying should be achieved i.e. 55 and 70 DAS. The spray can increase quality, quantity and weight of each grain.
12	**Demonstration on Spraying of Multi Micro and Macro nutrient on Sugarcane** Better than local technology.

C. Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Groundnut																		
Sesamum																		
Mustard																		
Safflower																		
Linseed																		

Sunflower																		
Soybean	Varietal introduction	Demonstration of new high yielding variety Phule Sangam (KDS-726)	PhuleSangam (KDS-726)	13	5	34.53	29.15	31.84	27.89	14.16	78246	146464	68218	1.87	75460	128294	52834	1.70
Castor																		

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

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeonpea																		
Blackgram																		
Greengram																		
Chickpea																		
Fieldpea																		
Lentil																		
Horsegram																		

Cowpea																			

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

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Paddy	Integrated pest management	Management of caseworm in rice using biological control	15	5	5		47.28	41.18	44.23	39.51	11.95	59921	97306	37385	1.62	59851	86922	27071	1.45
Waterlogged Situation																			
Coarse Rice																			
Scented Rice																			
Wheat																			
Wheat Timely sown																			
Wheat Late Sown																			

Mandua																			
Barley																			
Maize																			
Amaranth																			
Millets																			
Jowar																			
Bajra																			
Barnyard millet																			
Finger millet	INM	Spraying of 19:19:19 foliar grade fertilizer 2 % at pre flowering stage	13	5	25.38	19.34	22.36	20.41	09.55	98	86	53871	89440	35569	1.66	48544	53150	28490	1.53
Vegetables																			
Bottlegourd																			
Bittergourd																			
Cowpea																			

Spongegourd																			
Petha																			
Tomato																			
Frenchbean																			
Capsicum																			
Chilli																			
Brinjal																			
Vegetable pea																			
Softgourd																			
Okra																			
Colocasia (Arvi)																			
Broccoli																			
Cucumber																			
Onion																			
Coriender																			

Lettuce																			
Cabbage																			
Cauliflower																			
Elephant fruit																			
Any other (Pl specify)																			
Flower crops																			
Marigold																			
Bela																			
Tuberose																			
Gladiolus																			
Any other (Pl. specify)																			
Fruit crops																			
Mango																			
Strawberry																			
Guava																			
Banana																			
Papaya																			

Muskmelon																			
Watermelon																			
Any other (Pl. specify)																			
Spices & condiments																			
Ginger																			
Garlic																			
Turmeric																			
Any other (Pl. specify)																			
Commercial Crops																			
Suru Sugarcane	ICM	Use of Acetobacter culture at 60 and 90 DAS in suru sugarcane	13	5	Result awaited														
	ICM	Use of Acetobacter culture at 60 and 90 DAS in suru sugarcane	13	5	1287	961	1124	1014	10.84	22	16	136275	337200	200925	2.47	128853	304200	175347	2.36
Ratoon Sugarcane	RCT	Trash management, INM through crow bar.	13	5	Result awaited														
	RCT	Trash management, INM through crow bar.	13	5	1173	969	1071	945	13.33	14	8	108952	321300	212348	2.94	114690	283500	168810	2.47
Potato																			
Cotton																			
Any other (Pl.																			

specify)																			
Medicinal & aromatic plants																			
Mentholment																			
Kalmegh																			
Ashwagandha																			
Any other (Pl. specify)																			
Fodder Crops																			
Sorghum (F)																			
Cowpea (F)																			
Maize (F)																			
Lucern																			
Berseem																			
Oat (F)																			
Napier																			
Grasses																			

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

Frontline Demonstration on Nutri cereals

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Bajra	Dryland farming	Introduction of ICTP 8203 Phule Dhanshakti variety of pearl millet (Bajra)	ICTP 8203 Fe Dhanshakti	13	5	21.33			18.72	13.94	40464	53325	12861	1.32	38719	46800	8081	1.21
Finger millet	Dryland farming	Introduction of Phule Nachani variety of finger millet	Phule Nachani	13	5	21.20			17.58	20.59	52485	84800	32315	1.61	49469	70320	20851	1.42

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle																	
Buffalo																	
Buffalo Calf																	
Dairy																	
Poultry																	
Sheep & Goat																	
Vaccination																	

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

FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Common Carps																	
Composite fish culture																	
Feed Management																	

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

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Oyster Mushroom																
Button Mushroom																
Apiculture																
Maize Sheller																

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Value Addition																
Vermi Compost																
Sericulture																

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total
Spiral grain seperator	Soyabean	Spiral grain seperator	13	-	1) Time required / 100 kg grainsin hrs 2) Labour requirement women/ 100 kg 3) Operating cost Rs/ 100 kg	0.3	19.75	98.48 97.23 98.29								
						0.09 12.8	3.25 750					3.16/ 100 kg		Rs737.2/ 100 kg		

FLD on Other Enterprise: Kitchen Gardening

Nutrition garden components	Thematic area	Area (sq mt)	No. of Farmer	No. of Units	Yield (Kg)- supply of vegetables, fruits, etc from KG in the year		% change in yield	Household size (number)		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check*		Demo	Check	Gross Cost	Gross Return/Savings*	Net Return	BCR (R/C)	Gross Cost	Gross Return/ Savings*	Net Return	BCR (R/C)
	Nutrition Gardening	512	13	13	216	70	72.8	4	4	450	4320	3870	9.6	200	1400	1200	7

***check maybe family adopting different Nutrition garden model/ no adoption of Nutrition garden model**
Savings from produce of Nutrition garden used for home consumption

FLD on Demonstration details on crop hybrids

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Oilseed crop													
Pulse crop													
Cereal crop													
Vegetable crop													

Fruit crop													
Other (specify)													

Note: Remove the Enterprises/crops which have not been shown

3.4. Training Programmes (Online programmes if any should be included under On Campus category)

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	5	78	8	86	2	0	2	80	8	88
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs										
Others (pl. specify)										
Total	**5**	**78**	**8**	**86**	**2**	**0**	**2**	**80**	**8**	**88**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops	2	14	0	14	0	0	0	14	0	14
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**2**	**14**	**0**	**14**	**0**	**0**	**0**	**14**	**0**	**14**
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards	1	9	10	19	2	0	2	11	10	21
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)	**1**	**9**	**10**	**19**	**2**	**0**	**2**	**11**	**10**	**21**
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										

Others (pl specify)										
Total (g)										
Grand Total (a to g)										
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management	3	102	13	115	0	0	0	102	13	105
Production and use of organic inputs										
Management of Problematic soils	1	9	18	27	0	0	0	9	18	27
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	1	9	18	27	0	0	0	9	18	27
Others (pl specify)										
Total	**5**	**120**	**49**	**169**	**0**	**0**	**0**	**120**	**49**	**169**
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total										
V Home Science/Women empowerment	0	0	0	0	0	0	0	0	0	0
Household food security by kitchen gardening and nutrition gardening	1	22	0	22	0	0	0	22	0	22
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	03	22	44	66	1	8	9	23	52	75
Women empowerment	03	21	37	58	2	2	4	23	39	62
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**7**	**45**	**81**	**146**	**3**	**10**	**13**	**68**	**91**	**159**
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	3	31	36	67	0	0	0	31	36	67
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	**3**	**31**	**36**	**67**	**0**	**0**	**0**	**31**	**36**	**67**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										

Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX 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)										
Total										
X CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics	1	52	0	52	0	0	0	52	0	52
Formation and Management of SHGs										
Mobilization of social capital	1	18	7	25	0	0	0	18	7	25
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify) Organic farming	1	54	6	60	0	0	0	54	6	60
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total	**3**	**124**	**13**	**137**	**0**	**0**	**0**	**124**	**13**	**137**
GRAND TOTAL	**23**	**390**	**161**	**571**	**7**	**10**	**17**	**417**	**171**	**588**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies	1	46	0	46	0	0	0	46	0	46
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	12	517	68	585	3	0	3	520	68	588
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total	**13**	**562**	**68**	**604**	**3**	**0**	**3**	**566**	**68**	**634**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops	7	132	13	145	0	0	0	132	13	145
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										

Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**7**	**132**	**13**	**145**	**0**	**0**	**0**	**132**	**13**	**145**
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	14	32	46	0	0	0	14	32	46
Management of young plants/orchards	1	12	20	32	0	0	0	12	20	32
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
Total (b)	**2**	**26**	**52**	**78**	**0**	**0**	**0**	**26**	**52**	**78**
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
Grand Total (a to g)										
III Soil Health and Fertility Management										
Soil fertility management	1	27	107	134	0	0	0	27	107	134
Integrated water management										
Integrated Nutrient Management	6	185	36	221	0	0	0	185	36	221
Production and use of organic inputs	2	87	9	96	0	0	0	87	9	96
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	2	87	0	87	0	0	0	87	0	87
Others (pl specify)										
Total	**11**	**386**	**152**	**538**	**0**	**0**	**0**	**386**	**152**	**538**
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										

Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet	1	6	86	92	0	4	4	6	90	96
Minimization of nutrient loss in processing	2	22	11	33	1	0	1	23	11	34
Processing and cooking										
Gender mainstreaming through SHGs	1	19	1	20	2	0	2	21	1	22
Storage loss minimization techniques										
Value addition										
Women empowerment	8	154	110	264	9	6	15	163	116	279
Location specific drudgery reduction technologies	2	8	44	52	0	1	1	8	45	53
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**14**	**209**	**252**	**461**	**12**	**11**	**23**	**221**	**263**	**484**
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	3	43	5	48	5	0	5	53	0	53
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	**3**	**43**	**5**	**48**	**5**	**0**	**5**	**53**	**0**	**53**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX 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)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										

Group dynamics	4	73	44	117	0	0	0	73	44	117
Formation and Management of SHGs										
Mobilization of social capital	5	170	6	176	0	0	0	170	6	176
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total	**9**	**243**	**50**	**293**	**0**	**0**	**0**	**243**	**50**	**293**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**59**	**1601**	**592**	**2167**	**20**	**11**	**31**	**1627**	**598**	**2225**

Farmers' Training including sponsored training programmes – CONSOLIDATED (On + Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies	1	46	0	46	0	0	0	46	0	46
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	17	95	76	671	5	0	5	600	76	676
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total	**18**	**141**	**76**	**717**	**5**	**0**	**5**	**646**	**76**	**722**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops	9	146	13	159	0	0	0	146	13	159
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**9**	**146**	**13**	**159**	**0**	**0**	**0**	**146**	**13**	**159**
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	14	32	46	0	0	0	14	32	46
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										

Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
Grand Total (a to g)	**1**	**14**	**32**	**46**	**0**	**0**	**0**	**14**	**32**	**46**
III Soil Health and Fertility Management										
Soil fertility management	1	27	107	134	0	0	0	27	107	134
Integrated water management										
Integrated Nutrient Management	9	287	49	336	0	0	0	287	49	336
Production and use of organic inputs										
Management of Problematic soils	1	9	18	27	0	0	0	9	18	27
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	3	96	18	114	0	0	0	96	18	114
Others (pl specify)	**14**	**419**	**192**	**611**	**0**	**0**	**0**	**419**	**192**	**611**
Total										
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	22	0	22	0	0	0	22	0	22
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet	1	19	1	20	2	0	2	21	1	22
Minimization of nutrient loss in processing	1	6	86	92	0	4	4	6	90	96
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	5	44	55	99	2	8	10	46	63	109
Women empowerment	11	175	147	322	11	8	19	186	155	341
Location specific drudgery reduction technologies	2	8	44	52	0	1	1	8	45	53
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**21**	**274**	**333**	**607**	**15**	**21**	**36**	**289**	**354**	**643**
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
Total										
VII Plant Protection										
Integrated Pest Management	6	74	41	115	5	0	5	79	120	199

Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	**6**	**74**	**41**	**115**	**5**	**0**	**5**	**79**	**120**	**199**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX 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)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics	5	125	44	169	0	0	0	125	44	169
Formation and Management of SHGs										
Mobilization of social capital	6	188	13	201	0	0	0	188	13	201
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)	1	54	6	60	0	0	0	54	6	60
Total	**12**	**367**	**63**	**430**	**0**	**0**	**0**	**367**	**63**	**430**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**82**	**1435**	**750**	**2685**	**25**	**21**	**46**	**1960**	**850**	**2810**

Training for Rural Youths including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming	2	147	114	261	6	5	11	153	119	272
Seed production										
Production of organic inputs	2	53	25	78	1	0	1	54	25	79
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	1	0	20	20	0	1	1	0	21	21
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	14	10	24	1	0	1	15	10	25
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)	2	99	67	166	0	0	0	99	67	166
TOTAL	**8**	**313**	**236**	**549**	**8**	**6**	**14**	**321**	**242**	**563**

Training for Rural Youths including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										

Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl. specify)										
TOTAL										

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming	2	147	114	261	6	5	11	153	119	272
Seed production										
Production of organic inputs	2	53	25	78	1	0	1	54	25	79
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	1	0	20	20	0	0	0	0	20	20
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	14	10	24	1	0	1	15	10	25
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)	2	99	67	166	0	0	0	99	67	166
TOTAL	**8**	**313**	**236**	**549**	**8**	**6**	**14**	**321**	**242**	**563**

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

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	**2**	**103**	**2**	**105**	**0**	**0**	**0**	**103**	**2**	**105**
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										

Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization	2	72	4	76	0	0	0	72	4	76
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL	**4**	**175**	**6**	**181**	**0**	**0**	**0**	**175**	**6**	**181**

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

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	2	136	18	154	16	6	22	152	24	176
Integrated Pest Management										
Integrated Nutrient management	1	47	9	56	0	0	0	47	9	56
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL	**3**	**183**	**27**	**210**	**16**	**6**	**22**	**199**	**33**	**232**

Training programmes for Extension Personnel including sponsored training – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	4	239	20	259	16	6	22	255	26	281
Integrated Pest Management										
Integrated Nutrient management	1	47	9	56	0	0	0	47	9	56
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization	2	72	4	76	0	0	0	72	4	76
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL	**7**	**358**	**33**	**391**	**16**	**6**	**22**	**374**	**39**	**413**

Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Increasing production and productivity of crops	1	34	0	34	0	0	0	34	0	34
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops										
Soil health and fertility management										
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Processing and value addition										
Others (pl. specify)										
Total										
Farm machinery										
Farm machinery, tools and implements										
Others (pl. specify)										
Total										
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total										
Home Science										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)										
Total										
Agricultural Extension										
CapacityBuilding and Group Dynamics										
Others (pl. specify)										
Organic Farming	1	54	6	60	0	0	0	54	6	60
Total	2	88	6	94	0	0	0	88	6	94
GRAND TOTAL	2	88	6	94	0	0	0	88	6	94

Details of vocational training programmes carried out by KVKs for rural youth (4 or more days)

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Commercial floriculture										
Commercial fruit production										
Commercial vegetable production										
Integrated crop management										
Organic farming	1	17	7	24	1	0	1	18	7	25
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Value addition										
Others (pl. specify)										
Total										
Livestock and fisheries										
Dairy farming										
Composite fish culture										
Sheep and goat rearing										
Piggery										

Poultry farming	**3**	**35**	**27**	**62**	**3**	**0**	**3**	**38**	**0**	**38**
Others (pl. specify)										
Total										
Income generation activities										
Vermicomposting										
Production of bio-agents, bio-pesticides,										
bio-fertilizers etc.										
Repair and maintenance of farm machinery										
and implements										
Rural Crafts										
Seed production										
Sericulture										
Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.	**1**	**0**	**20**	**20**	**1**	**0**	**1**	**21**	**0**	**21**
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total	**5**	**52**	**54**	**106**	**5**	**0**	**5**	**77**	**7**	**84**
Grand Total	**5**	**52**	**54**	**106**	**5**	**0**	**5**	**77**	**7**	**84**

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)	32	4520	325	4845
Diagnostic visits	108	1082	207	1289
Field Day	14	219	38	257
Group discussions	17	122	73	195
Kisan Ghosthi	0	0	0	0
Film Show	4	210	12	222
Self -help groups	1	303	2	305
Kisan Mela	1	105	5	110
Exhibition	1	40	6	46
Scientists' visit to farmers field	0	0	0	0
Plant/animal health camps	1	47	4	51
Farm Science Club	1	57	6	63
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	3	150	15	165
Method Demonstrations	5	81	4	85
Celebration of important days	11	367	27	394
Special day celebration	0	0	0	0
Exposure visits	9	123	16	139
	208	7426	740	8166
Others (pl.specify)	0	0	0	0
Animal Vaccination	1	47	4	51
Bal Anand Mela	1	202	10	212
Blood Donation Camp	1	13	9	22
Conducted Exam Skill Training Small organic cultivar	1	23	2	25
Evaluation of Fruit for Compitation	1	1	7	8
Felicitation Award Wing Farmer	1	0	0	0
Garden Development	2	7	12	19
HRD Participation in Seminar	6	15	201	216
Input Distribution Programme	2	42	3	45
Krishi Sanjevani Saptah	1	39	4	43

KVK Unit attachment	2	168	0	168
Lecture Delivered as Resource Person	72	3755	1027	4782
LiFE Programme	1	12	16	28
Live Telecast Programme	2	184	0	184
Mahila Melava	2	1031	22	1053
Monthly District Workshop	1	41	18	59
Newspaper coverage	15	0	0	0
Participation as a committee members	3	35	26	61
Participation in Agricultural exhibition	1	0	0	0
Participation in certificate distribution	1	4	0	4
Participation in FPO National Mega Conclave	1	0	0	0
Participation in Conference	1	0	0	0
Participation in DAESI Exam	1	40	0	40
Participation in HRD Training	1	0	0	0
Participation in Inauguration of ICAR ATARI Building	1	0	0	0
Participation in Meeting	28	295	861	1156
Participation in Krishi Sanjivani Saptah	1	48	5	53
Participation in Nursery Evaluation	3	9	29	38
Participation in Online Meeting	1	0	0	0
Participation in online Screening test	1	52	0	52
Participation in online training	3	0	0	0
Participation in Ran haji Mohstav	1	85	9	94
Participation in Seminar	1	0	671	671
Participation inVikasit Bharat Sankalp Yatra	4	203	55	258
Publication of Literature	3	0	0	0
Radio Talk	18	0	0	0
RAWE Orientation Programme	1	50	0	50
Recipes Competition	3	57	12	69
Research Paper Publication of Article	1	0	0	0
SAC Meeting	1	7	16	23
Shree Aana Programme	1	48	0	48
Technology Week	6	150	2	152
	199	6663	3021	9684
Total	**407**	**14089**	**3761**	**17850**

Note- Advisory services includes social media, website, telephonic calls etc.

Details of other extension programmes:

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	3
Newspaper coverage	15
Popular articles	4
Radio Talks	18
TV Talks	0
Animal health camps (Number of animals treated)	2
Social Media (No. of platforms Used)	6
Others (pl. specify)	0
Total	**48**

3.6 Online activities during year 2023

S. No.	Activity Type	Mode of implementation (Video conferencing / Audio Conferencing / Facebook Live / YouTube Live/ Zoom/ Google meet/ Webex etc.)	Title of Program	No. of Programmes	No. of Participants/ Views
A	Farmers training	**Zoom**	Training on safety use of glyphosate	3	42
1					
2					
3					
4					
5					
	Total				
B	Farmers scientist's interaction programme				
1					
2					
3					
	Total				
C	Farmers seminars				
1					
2					
3					
	Total				
D	Expert lectures				
1					
2					
3					
4					
	Total				
E	Any other (Pl. specify)				
1	HRD Training	**Zoom**	Programme House of Kisan Sarathi	1	84
2			Training on SML Portal	1	66
3	Lecture Delivered as Resource Person	**Zoom**	Delivered lecture on Kharif crop production technology	1	66
4	Live Telecast	**Zoom**	Hon'ble PM	1	92

	Programme		Live telecast programme of PM Kisan Yojana		
	Participation in online Screening test	**Zoom**	Screening test of AC & ABC Course	1	52
	Total				
	Grand Total (A+B+C+D+E)				

3.7. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Wheat	MACS-6222	-	65	227500	For Mahabeej
				0	0	0
				0	0	0
Oilseeds	Groundnut	PhuleDhani (JL-1085)	-	8	96000	25
		PhuleChaitanya (KDG-160)	-	8	96000	25
	Soybean	PhuleDurva (KDS-992)	-	5	60000	15
		PhuleKimaya (KDS-753)	-	8	96000	20
		PhuleSangam (KDS-726)	-	40	480000	75
Pulses	French bean	PhuleRajma	-	0.8	12000	5
Commercial crops				134.8	1067500	165
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
Total						

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial						
Vegetable seedlings						

Fruits	Mango	Keshar		282	22600	128
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others						
Total				**282**	**22600**	**128**

Production of Bio-Products

Bio Products	**Name of the bio-product**	**Quantity Kg/Lit**	**Value (Rs.)**	**No. of Farmers**
Bio Fertilizers	Vermicompost	1247 Kg	12470	455
Bio-pesticide	EPN	105 Kg	41820	122
Bio-fungicide	Trichoderma	52 Kg	9600	63
Bio Agents				
Others				
Total				

Production of livestock materials

Particulars of Live stock	Name of the animal / bird / aquatics	**Name of the breed**	Type of Produce	unit (no./ lit/kg)	Quantity	**Value (Rs.)**	**No. of Farmers**
Dairy animals							
Cows							
Buffaloes							
Calves							
Others (Pl. specify)							
Poultry							
Broilers							
Layers							
Duals (broiler and layer)							
Japanese Quail							
Turkey							
Emu							
Ducks							
Others (Pl. specify)							
Piggery							
Piglet							
Others (Pl.specify)							
Fisheries							
Indian carp							
Exotic carp							
Others (Pl. specify)							
Total							

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

A. KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.):

B. Literature developed/published

Item	**Citation/ Title**	**Authors name**	**Number**
Research papers(Give Citation)			
Technical reports			
News letters			
Technical bulletins			
Popular articles			
Extension literature			
Others (Pl. specify)			
TOTAL			

C. Details of Electronic Media Produced

S. No.	**Type of media (CD / VCD / DVD/ Audio-Cassette)**	**Title of the programme**	**Number**

D. Details of Social Media Platforms Created / Used

S. No.	**Type of social media platform**	**No of events (uploaded video/post/story etc.**	**Title of social media**	**Number of Followers/ Subscribers**
1	YouTube Channel (no of video uploaded)	**13**	**Kvk kalawade, Karad**	**139**
2	Facebook page/ Account (no of	**01**	**Krishi Vigyan Kendra**	**4922**

	Post)		**Satara - I**	
3	Mobile Apps	**0**	**-**	**0**
4	Whats App groups	**35**	**Crop wise whatsaap group**	**3360**
5	Twitter Account	**22**	**KVK Kalawade**	**54**
6	Any other (Pl. Specify)			

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

Organic farming to organic product producer farmer.

Situation analysis/Problem statement

Mr. Ravikiran V. Patil, At post- Malkhed, Tal- Karad, Dist- Satara Pin- 415539, Mob. No. 9511237169. Organic farmer his education is MA (Economic) Total 4 farmily members in his family. Father, mother and his sister live together. Total land is 2.5 acre all land is irrigated and used advanced irrigation system (Drip and sprinkler irrigation) from last 30 to 40 years his father produced crop traditionally farming no any advanced technique use in his farm. After his post graduation in MA (Economic) he decided not going to service sector. He decided made his carrier in Agriculture.

Initially his 2.5 acre land comes under irrigation. His own pipeline from river to his land approximate 3 Km pipeline done and all are drip irrigation system. He grow sugarcane intercrop with soybean in Kharif season, sugarcane information with wheat, gram in rabbi season, vegetables like watermelon, cucumber, cauliflower etc. After COVID-19 up and down the market and affect the economic loss. He decided convert his farm modern agriculture to organic farming.

Plan, Implement and Support:

Mr. Ravikiran Patil completed training programme on natural and organic farming at Krishi Vigyan Kendra, Kalawade in the year 2021. After that he visited KVK frequently and linked with KVK experts. He realized that organic farming system is always good for human and environment. Organically produced food grains and vegetables have good demand in market, fetching high value in terms of money and also participated various training and extension programme of state agriculture department, read different books on organic farming, also taken training on Vermicompost production. He started sugarcane production by organic method. Total 2.5 acre adsali sugarcane planted organically all modern technology used while planting row to row distance is 4.5 feet and fertilizer management by oranic dung slury in cow dung slury addition of 10 Kg cow dung + 5 liter cow urine, gram floor and jowar floor 1 Kg + curd 1 Kg + soil 1 Kg + 200 liter water used this all for 1 acre land for drip irrigation or flood irrigation control.

1. Organic crop and its processed product

Income				
Sr.No.	**Crop/ enterprises**	**Production**	**Rate**	**Total Amt.**
01	Sugarcane	80 Ton	3000/ Ton	2,40,000/-
02	Organic jaggery	5000 Kg	110/ Kg	5,50,000/-
03	Organic jaggery powder	2000 Kg	140/ Kg	2,80,000/-
	Bakery product			
04	Jaggery cream roll	208 Kg	240/ Kg	50,000/-
05	Jaggery toast	250 Kg	200/ Kg	50,000/-
06	Jaggery rots	125 Kg	400/ Kg	50,000/-
07	Jaggery pedha	83 Kg	600/ Kg	50,000/-
			Total Income	9,90,000/-
Expenditure				
Sr.No.	**Crop/ enterprises**	**Production**	**Rate**	**Total Amt.**
01	Sugarcane	80 Ton	25000/ Ton	62,500/-
02	Organic jaggery	5 Ton	20000/ Ton	1,00,000/-
03	Organic jaggery powder	2 Ton	18000/ Ton	36,000/-
	Bakery product			
04	Jaggery cream roll	208 Kg	85/ Kg	17,500/-
05	Jaggery toast	250 Kg	70/ Kg	17,500/-
06	Jaggery rots	125 Kg	140/ Kg	17,500/-
07	Jaggery pedha	83 Kg	210/ Kg	17,500/-
			Total Expenditure	**2,68,500/-**

Total Gross Income is of Rs.9,90,000/-
Total Expenditure is of Rs. 2,68,500/-
Total Net profit is of Rs. 7,21,500/-

Outcome:

Mr. Ravikiran Patil spread his technology through various extension programme. He delivered information to other farmer in his organic shop at village Malkhed. KVK, Kalawade arranged the visit of organic farmers trainee to his organic shop and he delivered information about organic production in various agriculture extension programme conducted by State Agriculture Department and other institute.

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Production of Sugarcane by organic method</td><td>Application of Vermicompost to sugarcane</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Production of Vermicompost in Mr. Ravikiran Patil farm</td><td>Production of Organic Slurry</td></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>Production of Organic Products</td><td>Branding name of all organic products</td></tr>
</table>

	
Production of Organic Ayurvedic Jaggery	Production of Organic Ayurvedic Jaggery candy
	
Desi goat production unit at farm	Production of sugarcane seedling at his own farm

E. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year

A. TECHNOLOGY TRANSFER CLUB (TCC):

Krishi Vigyan Kendra established technology transfer club in jurisdiction of operational area of selected village. Through these clubs KVK scientists and officials of club (farmers) identify and find out the problems of villagers related to agriculture, social & economic point of view. After finding out these problems suitable solutions are evolved & implemented to solve these problems through mutual understanding of KVK and Club.

Through these TTC, KVK effectively implemented various KVK programmes like FLD, OFT, Training Programme, Farmers rallies etc.

Created Four Whats App group for Sugarcane, Groundnut, Sheep & Goat, Rural Poultry, Farmers Friends for sharing of experiences of the farmers and effective farmers scientists interaction.

B. MINI-ATIC CENTRE:

KVK has established Mini-ATIC Centre for giving information to farming community as well as visiting dignitaries in which Photographs of Pests, Diseases & Nutrition Deficiencies, IPM Kits and different Specimens & Models are demonstrated. In its publications segment the KVK has published the Rabi crop production Diaries, Vermicompost Diaries, Folders on Vegetable plant protections, Fruit crop growing, Sericulture, Booklet on Banana Production technology, Kharif and Rabi crop production Technique, Goat farming etc., and CD on Vermicompost to enrich the knowledge of farmers who are indulged in respective fields.

C. DEMONSTRATIVE UNITS

Considering "Seeing Is Believing", Krishi Vigyan Kendra has established its own 23 Demonstrative Units on his farm for conducting the various trainings and other activities. The demonstration units are Loose housing cow barn, Crop plots of Groundnut, Jawar, Sugarcane, Soybean etc, Crop museum (Different crop variety), Horticulture crop orchard (Aonla, Pomegranate, Mango, Coconut), High Density mango plantation, Vermicompost & Vermiwash project, Mulberry plantation, Mushroom production unit, Azolla production unit, ICRISAT groundnut production technology, Agriculture based implement exhibition, Zero energy cool chamber unit, Nursery, Briquette production unit, Goat rearing unit, Silage

preparation, Honey Bee Keeping unit, Farm pond, Apiculture unit, Hydroponic Unit, Green House Unit, Old Agricultural implements exhibition and Micro irrigation (Drip & Sprinkler) unit.

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

Sl. No.	Crop / enterprise	ITK Practiced	Purpose of ITK
A	Agronomical crops		
1	Paddy	Rope dragging and moving to and fro in standing crop	Control of caterpillar
2	Gram	Mixing Jowar or maize seed with Gram while sowing	Bird perch for Helicoverpa armigera management
3	General crops	Spraying of insecticides at evening 2-3 days after Amawasha	Control of nocturnal caterpillar
4	Cereals	Waste cassette reeling	To minimizes the losses of grain at maturity from birds
B	Horticultural crops		
1	Pea	Criss-cross sowing	To avoid lodging by anchoraging in pea
2	Chilli	Spraying the crop with Raw milk 1 cup + Admire 2 gm + Zinc sulphate 15 gm + Steam rich 15 ml per 15 lit pump	For management of Leaf curl of chilli
3	Ginger	Treat the Ginger seed with dung to improve seed germination and to avoide rhizome rot.	To improve seed germination and to avoide rhizome rot.
C	Pest		
1	Rat	Take 5 lit empty plastic can. Cut it at mouth. Burry it at ground level. Apply groundnut oil and some groundnut pieces inside neck. Pour water half of can.	To catch the rats.
		Use of Glyricidia flowers to keep away the rats	Keep away the rats
2	Stored Grains	Use of Wekhand rhizome powder 2% of grain weight and keeping it in container of stored grains for preventing stored grain pests	Preventing stored grain pests
		Mixing of common salt in grains @ 250 gm for 5 kg grains.	Preventing stored grain pests

5.1. Indicate the specific training need analysis tools/methodology followed for

A. Practicing Farmers

PRA Survey

B. Rural Youth

a) Field Survey and Agro – Ecosystem Analysis
b) Observation and group discussion with Rural Youth

C. In-service personnel

a) Meeting with Government Institute
b) Feedback from Agriculture department & Development Organizations

D. Other
a) Feedback from Ex-Trainees
b) Pre and post training evaluation

5.2. Indicate the methodology for identifying OFTs/FLDs

PRA – PRA was conducted in Mundhe, Rethare kh, Nigadi, Surupkhanwadi and Vihe. In PRA identified thrust area like improving productivity of Sugarcane , Soybean, Potato , Pea, Rabbi jowar,Paddy, Gram, Wheat, Groundnut & livestock & Poultry management, empowerment of youth & women . From PRA yield gap analysis was done & accordingly thrust areas the OFTs are finalized

Field level observations – During transit walkobserved the field condition and accordinglyfinalized OFTs

Farmer group discussions –

During village adoption conducted Group discussion in which yield gaps were found and need based technology interventions were finalized.

For FLD:
New variety/technology - Varitial evaluction of groundnut –, JL – 286, JL – 501, KDG – 128 & Phule Bharti in case of soybean, KDS – 344, KDS – 726, in case of wheat Phule Trimbik & Phule Samadhan were evaluated in gram Vijay & Digvijay in Black Gram AKU – 15& TAU – 1 were demonstration in case of poultry birds Giriraja& Black rock were demonstrated
Poor yield at farmers level – Poor yield due to improper nutrient management , improper crop management, improper pest and disease management due to this reason and poor drainage & poor soil health the yields of farmers were poor.

Existing cropping system - Lack of Broad bed furrow & Broad raised bed and lack of planting distance the yields were low according to survey and discussion with farmers proper FLDs were demonstrated

5.3. Field activities
i. Name of villages identified/adopted with block name-
1 Bhairewadi, Tal – Patan 2019 -20
2. Mundhe Tal – Karad, 2019 -20
3. Retahre Kh Tal – Karad 2017 -18
4. Jaigaon , Tal – Koregaon, 2019 -20
5. Kumthe Nagache Tal – Khatav 2018 -19

ii. No. of farm families selected per village : 50

iii. No. of survey/PRA conducted :05
iv. No. of technologies taken to the adopted villages –
Bhariewadii – 4 ,
Nigadi – 07,
Kumathe- 04
Vihe- 12,
Surupkhanwadi – 8
Mundhe - 4
Nalawadewadi – 4 (Not adopted)
Wathar 02 (Not adopted)
Rethre Bk 2 (Not adopted)
Kapil 01 (Not adopted)

v. Name of the technologies found suitable by the farmers of the adopted villages:

Use of briquettes in Paddy, Useof STCR doses in onion, BBF for Groundnut, Zero
tillage for ratoon management, Rearing of Black Rock birds, Gram IPM, White grub management by castor fermenter technique.
Growing of Phule Gunavant grass.
All technologies related to IPDM.
vi. Impact (production, income, employment, area/technological– horizontal/vertical)-

Use of briquettes in Paddy, Use of STCR doses in onion, BBF for Groundnut, Zero tillage for ratoon management, Rearing of Black Rock birds, Growing of Phule Gunavant grassIPM in all crops. These are the trials for horizontal spread.

A. Practicing Farmers
a)
b)
c)
B. Rural Youth
a)
b)
c**)**
d)
C. In-service personnel
a)
b)
c)

5.2. Indicate the methodology for identifying OFTs/FLDs
For OFT:
i) PRA
ii) Problem identified from Matrix

iii) Field level observations
iv) Farmer group discussions
v) Others if any

For FLD:

i) New variety/technology
ii) Poor yield at farmers level
iii) Existing cropping system
iv) Others if any

5.3. Field activities

i. Name of villages identified/adopted with block name (from which year) -
ii. No. of farm families selected per village :
iii. No. of survey/PRA conducted :
iv. No. of technologies taken to the adopted villages
v. Name of the technologies found suitable by the farmers of the adopted villages:
vi. Impact (production, income, employment, area/technological– horizontal/vertical)
vii. Constraints if any in the continued application of these improved technologies

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
M.P.K.V., Rahuri	Participation in ZREAC meetings, Source of technical information & Conducting training programmes, and extension activities
Agriculture Research Centers	Participation in meetings & Source of technical information
State Agricultural Department	Joint implementation of extension activities, Participation in meetings & Conducting training programmes
State Veterinary Department	Joint implementation, Participation in meetings & Conducting training programmes
Regional Agricultural Extension Centre	Participation in meetings, Extension activities
Zillah Parishad, Panchayat Samiti and Gram panchayats	Joint implementation, Participation in meetings, conducting training programmes and other extension activities.
MAHABEEJ	Seed production
Agriculture College, Karad	Conducting Extension activities
Regional Agriculture Management Extension & Training Institute, Kolhapur (RAMETI)	Joint implementation, Participation in meetings, & Conducting training programme
ATMA, Satara	Participation in meetings, conducting training programmes. Planning, Survey etc.
District Rural Development Authority	Conducting training programmes for Rural youths under SGSY schemes.
Satara District Co. op. Bank	Group Discussion & meetings of Farmer's Clubs.
NABARAD	Participation in pre Kharif and pre rabi meetings, Formation of TTC.
Central Poultry Development Organization (WR) Mumbai	Joint implementation, Participation & Conducting training programmes Supply of Giriraja chicks
Akashwani, Satara	Recording & broadcasting of agricultural programmes and farmers success stories
Doordarshan, Pune	Recording & broadcasting of agricultural programmes and farmers success stories
Zuari Agro. Ltd	Farmer's ralley and training programmes
Balasaheb Desai College Patan	Soil health campaigning
Y M Krishna Agriculture Collage Rethare	Organising joint farmers meeting and mela's as a part of RAWE activities of RAWE students
Mokashi Agriculture Collage RajmachiKarad	Organising joint farmers meeting and mela's as a part of RAWE activities of RAWE students

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

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

Name of the scheme	Date/ Month of initiation	Funding agency(State Govt./Other Agencies)	Amount (Rs.)

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

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

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	No of Farmers attending
01	**Meetings**	MDW	**5**		**245**
02	**Research projects**				
03	**Training programmes**	Training Programme	**1**	**1**	**26**
04	**Demonstrations**				
05	**Extension Programmes**				
	KisanMela				
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
	Lecture Delivered as Resource Person	Lecture Delivered as Resource Person	**4**	**4**	**652**
06	**Publications**				
	Video Films				
	Books				
	Book chapter				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				

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

D. Give details of programmes implemented under National Horticultural Mission

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

E. Nature of linkage with National Fisheries Development Board

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

F. Details of linkage with RKVY

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

G. Details of linkage with PKVY (Paramparagat Krishi Vikas Yojana)

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

H. Details of linkage with NFSM

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

I. Details of linkage with SMAF (Sub-mission on Agroforestry)

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

7. Convergence with other agencies and departments:

8. Innovative Farmers Meet

Sl.No.	Particulars	Details
	Have you conducted Farm Innovators meet in your district?	Yes/ No
	Brief report in this regard	

9. Farmers Field School (FFS)

S. No	Thematic area	Title of the FFS	Budget proposed in Rs.	Expenditure	Brief report

10.1. Technical Feedback of the farmers about the technologies demonstrated and assessed:

- After implementation of BBF for summer groundnut, farmers were surprised to see the results on BBF for groundnut, yield of groundnut recorded highest over drilled groundnut.
- After implementation of Zero tillage sugarcane ratoon management, farmers were surprised to see the results on Zero tillage sugarcane ratoon management, yield of Zero tillage sugarcane ratoon management is more conventional ratoon management.
- Technology demonstrated shown superior results over Farmers practice. Method need to be followed very correctly as demonstrated, There was increase in yield due to management of the wilt disease with minimum cost. Farmers also get aware of low cost technology for diseases management. Availability of quality biological control agent in time need to be planned well in advance.
- Management of thrips in onion was achieved by spraying single insecticide 3 – 4 times. To break the resistance in the pest for same insecticide (Neonicotinide) 10000 ppm Neem extract was used @ 1 ml per liter in the recommended spray (recommendation by AAU Anand)
- The method was very easy mean of sucking pest and borer control by only seed treatment of Thimethoxom 30 % FS. As formulation is semiliquid it is to be properly diluted and used as demonstrated.
- Decomposition time of trash has reduced significantly. Faremrs were hesitating to keep trash because of the same problem.
- As this area is under heavy rainfall and to avoid leaching losses of nutrients the nutrients should be given in form of briquette. Briquettes application to be done at appropriate time and planning.
- Farmers apply fertilizers injudiciously to achieve more yields and at any stage. But after receiving STCR doses they got actual dose of fertilizer and time of fertilizer application. STCR dose of fertilizer should be calculated by using recommended equations and if the quantity of potash is higher, conside as medium.
- Spraying of 19:19:19 can be replaced by using DAP and the accurate stage of spraying should be achieved i.e. 55 and 70 DAS. The spray can increase quality, quantity and weight of each grain.
- Spraying of Potassium Nitrate 2 % at the acute stage of 50% flowering and at grain filling stage should be achieved. This will help in increase in pods and filling of pods.
- Phule gunwant has potential to produce higher quality of green fodder from less cost of cultivation. This reduces cost of cultivation as compare to seasonal fodder crops so the farmers increase their area under this variety. The horizontal spread of this grass were happened due to massive extension activities and input service.
- Black australops are duel purpose chicks, they are good layers and also suitable for meat production as compare to local chicks.

10.2. Technical Feedback from the KVK Scientists (Subject wise) to the research institutions/universities:

11. Technology Week celebration during 2023: Yes, If Yes

Period of observing Technology Week: From to 10/10/2023 to 16/10/2023
Offline:
Total number of farmers visited :154
Total number of agencies involved : 02
Number of demonstrations visited by the farmers within KVK campus:154

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies			
Lectures organized	8	154	Crop Production, IPM ,INM, ICM, Food Processing
Exhibition			
Film show	1	149	Rural Entrepreneurship
Fair			
Farm Visit	1	152	
Diagnostic Practical's	2	150	
Supply of Literature (No.)			
Supply of Seed (q)			
Supply of Planting materials (No.)			
Bio Product supply (Kg)	12		Decomposing Culture
Bio Fertilizers (q)	11		Azolla
Supply of fingerlings			
Supply of Livestock specimen (No.)			
Total number of farmers visited the technology week	1	158	

12. Interventions on drought mitigation (if the KVK included in this special programme)

A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries

B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No. of participants
Total			

D. Animal health camps organized

State	Number of camps	No.of animals	No. of farmers
Total			

E. Seed distribution in drought hit states (Seed distribution/sold by KVK)

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Total				

F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Total			

G. Awareness campaign

State	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers
Total												

13. IMPACT

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

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

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

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

- **JL 286 Groundnut Variety:** For popularizing JL-286 (Phule Unnap) Variety of groundnut KVK has undertaken trainings and varietal demonstrations & supplied seed of JL-286 (Phule Unnap) Variety for the farmers from whole district. So far KVK has supplied **16 Quintals** of seed of JL-286 Variety to **26 farmers** from **15 villages** and covered **3 tahsil** of Satara district.
- **Phule Samadhan Wheat Variety:** For popularizing **Phule Samadhan** variety of Wheat KVK has undertaken trainings and varietal demonstrations and arranged seed production programme along with MAHABEEJ on farmers field and host organizations farm & also supplied seed directly to the farmers of Satara & adjoining districts. Through participatory seed production on farmer's field in collaboration with state seed corporation kvk has producing more than six hundred quintals of seed of Phule Samadhan variety per year.

- **Use of U- DAP and NPK Briquettes:** KVK has undertaking demonstration on Use of U- DAP briquettes in rice from last 6 years and On farm testing trial on Use of NPK briquettes for sugarcane from last two years. Also through trainings and extension activities KVK has popularized use of U-DAP and NPK briquettes. KVK producing U-DAP and NPK briquettes from last five years and supplying it to farmers from Satara, Sangli and Kolhapur districts. Up to March 2022 KVK has supplied **6844 Kg U-DAP briquettes to 612 number of farmers and 5873 Kg NPK briquettes to 542 numbers of farmers.**

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

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which	No. of feedback / query on

		SMS was sent	SMS sent
Jan 2023	3	62574	
Feb 2023	1	23342	
March 2023	1	23545	
April 2023	2	29668	
May 2023	1	28432	
Jun 2023	1	20855	
Jul 2023	1	20855	
Aug 2023	1	20779	
Sept 2023	1	20452	
Oct 2023	1	28266	
Nov. 2023	1	23312	
Dec. 2023	1	20858	

Name of KVK	Message Type	Type of Messages						
		Crop	**Livestock**	**Weather**	**Marke-ting**	**Aware-ness**	**Other enterprise**	**Total**
	Text only	0				3	0	15
	Voice only							
	Voice & Text both							
	Total Messages	**12**				**3**	**0**	**15**
	Total farmers Benefitted	**250502**				**72436**		**322938**

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

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	Vermicompost	2016	0.05	Udrilis Ujini	Vermicompost	1200 Kg	6500	12000	
2	Azolla Unit	2016	0.01	Azolla Pinata	Azolla	240 Kg	9000	36000	
3	Decomposting Culture	2017	0.01	Gaziyaad Culture	Decomposting Culture	300 Lit	1200	3000	

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									
Wheat				MACS-6222		65 Q		227500	
Oilseeds									
Groundnut				Phule Dhani (JL-1085)		8 Q		96000	
Groundnut				Phule Chaitanya (KDG-160)		8 Q		96000	
				PhuleDurva		5 Q		60000	

				(KDS-992)					
				PhuleKimaya (KDS-753)		8 Q		96000	
				PhuleSangam (KDS-726)		40 Q		480000	
Fibers									
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									
French bean				PhuleRajma		0.8 Q		12000	

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

Sl. No.	Bio Products	Name of the Product	Qty (kg/lit)	Amount (Rs.)		Remarks
				Cost of inputs	Gross income	
1.	Bio-Fertilizers					
2.	Bio-Fungicides					
3.	Bio-pesticides					
4.	Bio-Agents					

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	

E. Utilization of hostel facilities

Accommodation available (No. of beds):

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
January **2023**	2	2	
February **2023**	3	2	
March **2023**	12	25	
April **2023**	0	0	
May **2023**	4	4	
June **2023**	6	4	
July **2023**	0	0	
August **2023**	0	0	
September **2023**	4	2	
October **2023**	2	2	
November **2023**	8	4	
December **2023**	6	2	

F. Database management

S. No	Database target	Database created

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

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

H. Performance of Nutritional Garden at KVK farm
If Nutritional Garden developed at KVK farm/Village Level? Yes/No
If yes,

Nutritional Garden developed at KVK farm

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
	Vegetable crops	14	220
	Fruit crops		
	Others if any		

Nutritional Garden developed at Village Level (Area under nutritional garden)

No. of Villages covered	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers covered
	Vegetable crops	11	25
	Fruit crops		
	Others if any		

H. Details of Skill Development Trainings organized

S.No.	Name of KVKs/SAUs/ICAR Institutes	Name of QP/Job role	Duration (hrs)	No. of participants					
				SCs/STs		Others		Total	
				Male	Female	Male	Female	Male	Female

17. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	IFSC Number
With Host Institute	IDBI Bank	Karad	470	Kalyani Gorakshan Trust Account KVK Revolving Fund	47010010004999	IBKL0000470
With KVK	IDBI Bank	Karad	470	Kalyani Gorakshan Trust Account KVK Revolving Fund	47010010005000	IBKL0000470

B. Utilization of KVK funds during the year 2023-24 (Rs. in lakh) (Till Dec, 2023)

S.	Particulars	Sanctioned	Released	Expenditure

No.				
A. Recurring Contingencies				
1	**Pay & Allowances**	7915000	7915000	7186103
2	**Traveling allowances**	200000	200000	122986
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	100000	100000	66877
B	POL, repair of vehicles, tractor and Equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	150000	150000	34880
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	100000	100000	
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	300000	300000	96866
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	300000	300000	62393
G	Training of extension functionaries	50000	50000	
H	Maintenance of buildings	0	0	
I	Establishment of Soil, Plant & Water Testing Laboratory	0	0	
J	Library	0	0	
TOTAL (A)			**9115000**	**9115000**
B. Non-Recurring Contingencies				
1	**Works**	0	0	0
2	**Equipments including SWTL & Furniture**	0	0	0
3	**Vehicle** (Four wheeler/Two wheeler, please specify)	0	0	0
4	**Library** (Purchase of assets like books & journals)	0	0	0
TOTAL (B)			0	0
C. REVOLVING FUND			0	0
GRAND TOTAL (A+B+C)			**9115000**	**9115000**

Status of revolving fund (Rs. in lakh) for the Four years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2018 to March 2019	2327193.47	3734488	1262684	4798997.47
April 2019 to March 2020	4798997.47	5148520.37	5021675.74	4,925,842.10
April 2020 to March 2021	4925842.10	672600.50	3728956.49	1869486.11
April 2021 to March, 2022	1869486.11	446998.00	1986726.00	329758.11
April 2022 to March 2023	329758.11	699963.00	1071449.96	-41728.85
April 2023 to March 2024	-41728.85	1197725.00	1278851.00	-122854.85

17. Details of HRD activities attended by KVK staff during year

Name of the staff	Designation	Title of the training programme	Institute where attended	Mode (Online/Offline)	Dates

Dr. Dilip Ghongade	**SMS – Plant Protection**	**Natural and organic farming and production of biofertilizer**	**Natural & Organic Farming Research Center, Gaziyzbad**	**Offiline**	**9/10/2023 to 16/10/2023**

18. Details of progress in Doubling Farmers Income (DFI) villages adopted by KVKs

Name of the village	Total No. of families surveyed	Key interventions implemented	No. of farmers covered in each intervention	Change in income (Rs/unit)	
				Before (base year)	After (current year)
Rethare Kh	864	Demonstration of Seed treatment, JL -286, KDS-726 Off campus training programme Soil and water testing Establishment of IFS Model	200	150000	250000
Kumthe Nagache	474	Off Campus training programme Establishment of IFS Model Demonstration of Seed treatment, JL -286, KDS-726 Establishment of Agro subsidiary enterprise	200	200000	325000

19. Details of activities planned under NARI /PKVY / TSP / KKA, etc.

S. No.	Name of the programme	No. of villages adopted	Key activities performed	No. of activities carried out	No. of families covered

20. Details of Progress of ARYA Project

Name of Enterprise	No of Training Conducted	No of Beneficiaries	No of Extension Activities	No of Beneficiaries	No of Unit established	Change in income		No. Of Groups Formed
						Before	After	

21. Details of SAP

S. No.	*Types of major Activity conducted- Swachhta Pakhwada, Cleaning, Awareness Workshop, Microbial based Agricultural Waste Management by Vermicomposting etc.*	No. of Programmes conducted	No. of Participants

Sr. No	Name of KVK	Date	***Activity***	No of VIPs	No of Farmers	Others	Total

21. Books published 2023-24

Title of the Book	Authors	ISBN No	Publisher	Pages No	Description/review of the book (one paragraph/sentence)

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

APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	85	2065	811	2876
Rural youths	08	321	242	563
Extension functionaries	07	374	39	413
Sponsored Training	01	54	6	60
Vocational Training	02	2	42	44
Total	103	2816	1140	3956

2. Frontline demonstrations

Crops/Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	13	5.00	13
Pulses	12	5.00	12
Cereals	52	15.05	52
Vegetables	14	5.0	14
Other crops	77	30.00	77
Hybrid crops	0	0	0
Total	**168**	**60.05**	**168**
Livestock & Fisheries	0	0	0
Other enterprises	36	-	36
Total	**36**	**0**	**36**
Grand Total	**204**	**60.05**	**204**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	10	82	82
Livestock	0	0	0
Various enterprises	01	10	10
Total	**11**	**92**	**92**
Technology Refined			
Crops	0	0	0
Livestock	0	0	0
Various enterprises	0	0	0
Total	0	0	0
Grand Total	**11**	**92**	**92**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	208	8166
Other extension activities	199	9684
Total	**407**	**17850**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awar e-ness	Other enterprise	Total
	Text only	12				3	0	15
	Voice only							
	Voice & Text both							
	Total Messages	**12**				**3**	**0**	**15**
	Total farmers Benefitted	**250502**				**72436**		**322938**

6. Seed & Planting Material Production

	Quintal/Number	Value (Rs.)
Seed (q)	134.8 Qtl	1067500
Planting material (No.)		
Bio-Products (kg)	140 Qtl	63890
Livestock Production (No.)		
Fishery production (No.)		

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value (Rs.)
Soil	185	37000
Water	99	19800
Plant	00	00
Total	**284**	**56800**

8. HRD and Publications

Sr. No.	Category	Number
1	Abstract	**0**
2	Workshops	3
3	Conferences	1
4	Meetings	28
5	Trainings for KVK officials	3
6	Visits of KVK officials	9
7	Book published	0
8	Training Manual	0
9	Book chapters	2
10	Booklet	1
11	Leaflets/ Folder/ Pamphlet	4
12	Research papers	2
13	Technical Bulletin	1
14	Popular article	4
15	Lead papers	0
16	Seminar papers	1
17	Extension folder	2
18	Proceedings	2
19	Award & recognition	0
20	On-going research projects	0
21	Other	0