ICAR-ATARI, Pune

DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2022

(January 2022 to December 2022)

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 - 16596

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, 2022)

					If Permanent, Please indicate			If Temporary, pl. indicate
Sl.	Sanctioned post	Name of the	Mobile No.	Discipline	Current	Current	Date of	

No.		incumbent			Pay Band	Grade Pay	joining	the consolidated amount paid (Rs./month)
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. Thorat	9545447699	Agronomy	24336	5400	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
		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								
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	54000	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 ofSAC meeting conducted in the year:

Date	Name and Designation of Participants	Salient Recommendations	Action taken
30/01/2023	Hon'ble Mr. Gaurishankar Kalyani, Chairman, Kalyani Gorakshan Trust, Kalawade Hon'ble Mrs. Rohini Kalyani, Trustee, Kalyani Gorakshan Trust, Kalawade Rajesh T, Scientist, ATARI, Pune Mr. Vijaysingh Kate, Care taker, Kalyani	Establishment of 1 ha area on natural farming at KVK campus. Develope millet crop area in KVK on the occasion of International millet	

	Gorakshan Trust Dr. Nilesh Malekar, Representative, KGT Mr. Daulat Chavan, SDAO, Karad Mr. S.G. Jadhav. Agriculture officer, panchayat Samiti, Karad Dr. Mahesh Babar, SMS, KVK-Borgaon Mrs. Shital Nangare, A.O., Undale Dr. Nandkishor Tale, Assistant Professor, Agri College, Karad Mr. G.P.Salunkhe, Officer, DCC bank, Karad Mr. Y.S.Yadav, Officer, DCC bank, Karad Dr. Waybase, Livestock development officer, Wathar Mr.Y.S.Patil, Lead District Manager, Bank of Maharashtra, Satara Mr. S.B.Thorawade, Dev.Officer, DCC bank, Satara Progressive farmers. Mr. Anil Jamale, Mundhe, Mr. Arjun Kapurkar, Mr. Charudatta Patil, Rethare Kh, Mr. Atul Mohite, Rethare kh, Mr. Vijay Kale, Maldan, Mrs. Sarika Patil, Rajmachi, Mrs. Rupali Desai, Kale	year. Include 4 FLD's on millets crop in Action plan- 2023. Proper maintenance of all demonstration unit at KVK. Maintain KVK staff quarters. Conduct SAC meeting annually without fail. Establishment of seed production unit at KVK crop likes soybean and groundnut. Give technical support to FPO from KVK. Seed dibbling technology machine research can done in KVK. From KVK increasing activities on organic farming Help in marketing and include training on marketing technology. Include training on food processing Study training need assessment Provide facility from KVK on mobile van of soil and water testing lab. Breeder to foundation seeds of new crop varities available from KVK.	

		Establishment of seed processing unit at KVK.	

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	42800

		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.	
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 (2022)

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
33.	**Major Horticultural crops**			
34.	Potato	4805	7207	1500
35.	Onion	6549	60187	9190
36.	Tomato	1164	8286	7119
37.	Chilli	929	2775	2987
38.	Brinjal	753	7294	9687
39.	Pea	336	1017	3027
40.	French bean	5746	6229	1084
41.	Coriander	2834	804	284
42	Fruits			
43	Mango	879	7559	8600
44	Banana	244	2693	11037
45	Guava	319	3782	11856
46	Pomegranate	984	9381	9534
	Grapes	232	3999	17237

Source: District agriculture department Web site

2.5. Weather data (2022)

Month	Normal	Normal Rainy days (number)	Temperature (^{0} C)	Relative Humidity (%)

	RF(mm)		Maximum	Minimum	Maximum	Minimum
Total						

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			
Category		Production (Q.)	Productivity
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 (2019)	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 (2018)	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 (2019)	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:

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	10	70	91	12	12	120	147

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
48	73	960	2870	200	297	4000	10131

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 2022

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

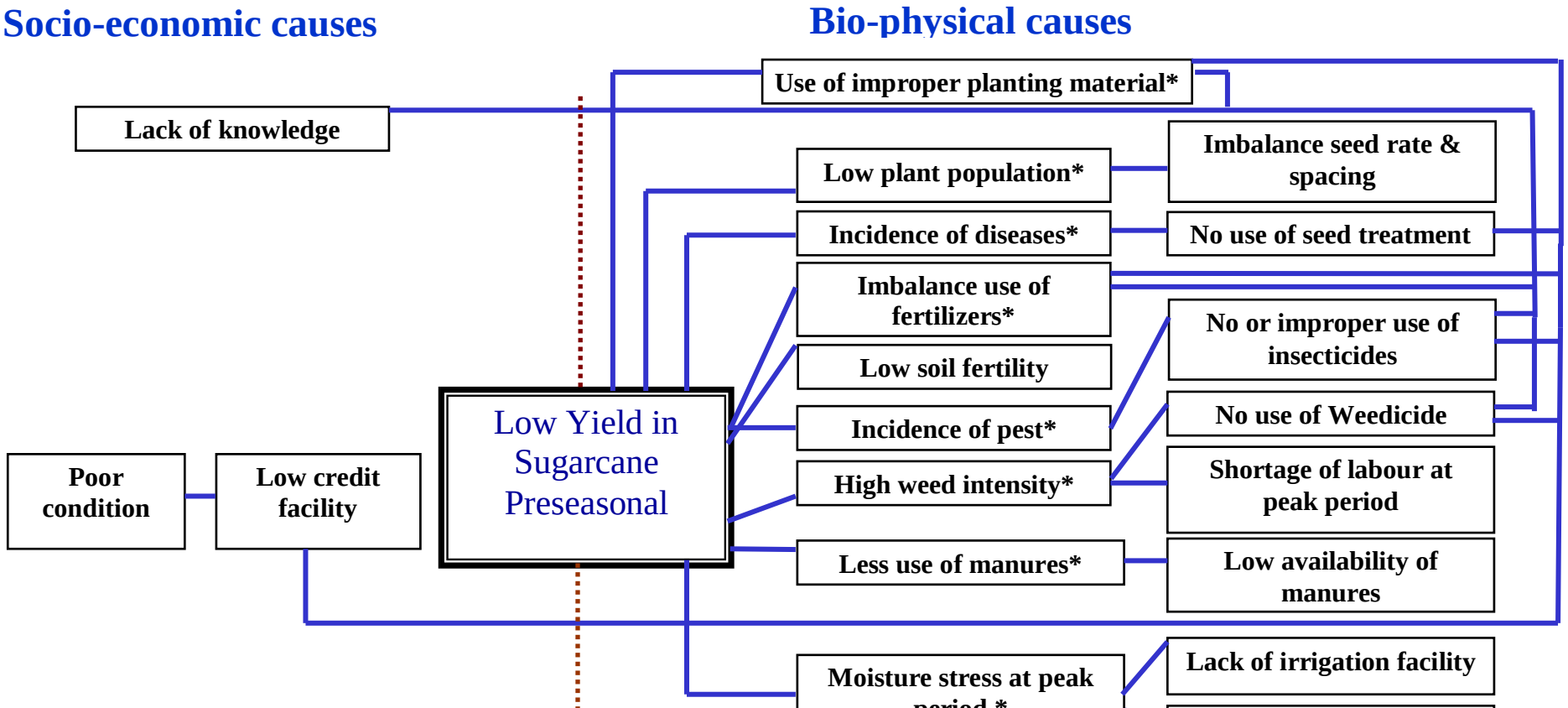
		Infestation of aphids, jassids and Pink stem borer in early stage of crop growth		Tondoshi (Patan)	FLD and training for effective management of Wheat aphids, jassids and stem borer
		1.Imbalance use of fertilizer 2.Less tillering and improper grain filling 3.Low use of fertilizers.		Nigadi (Karad)	FLD 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

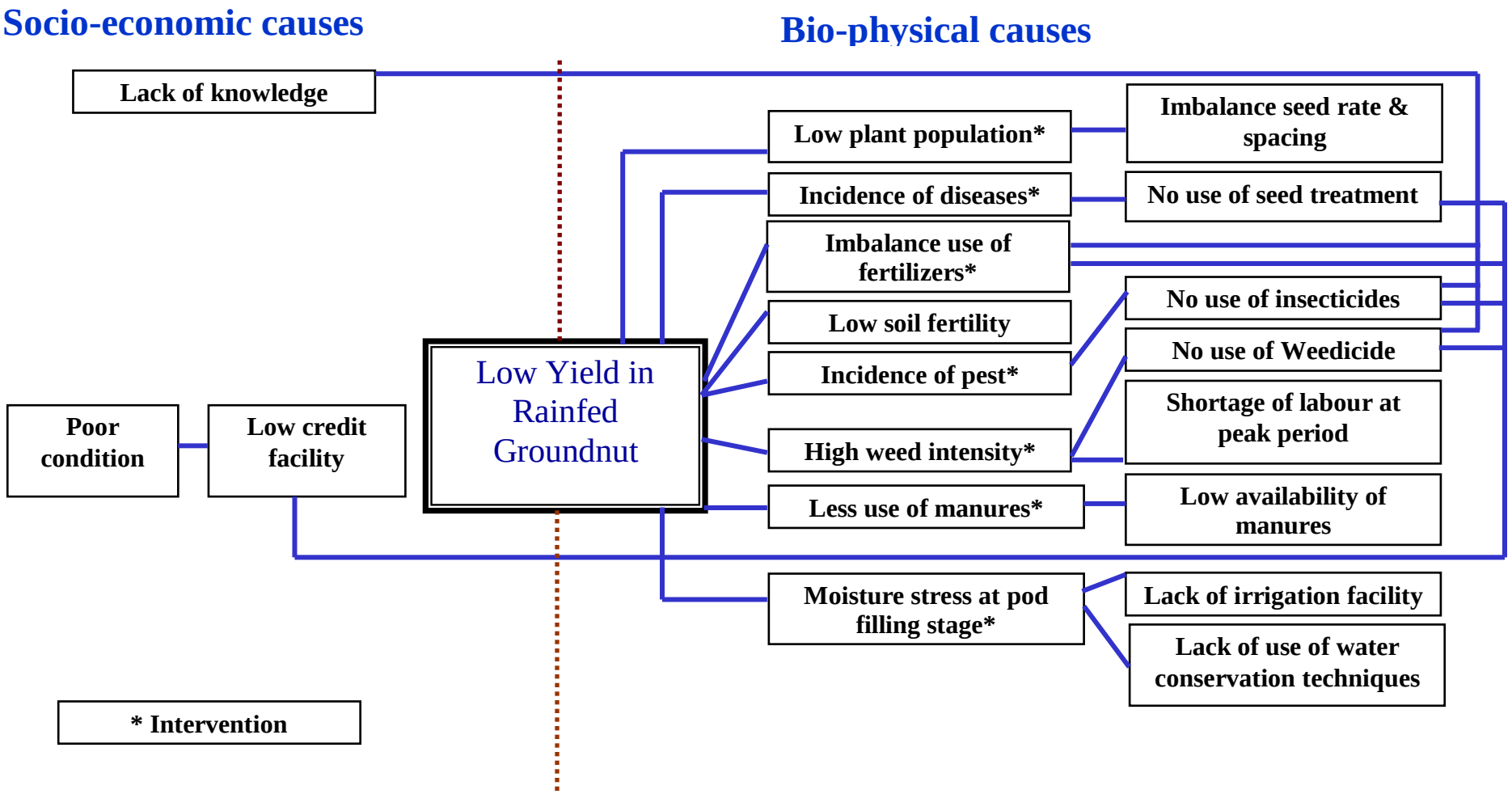
* Support with problem-cause and interventions diagram

3.1. C. Problem cause diagram of major problems.

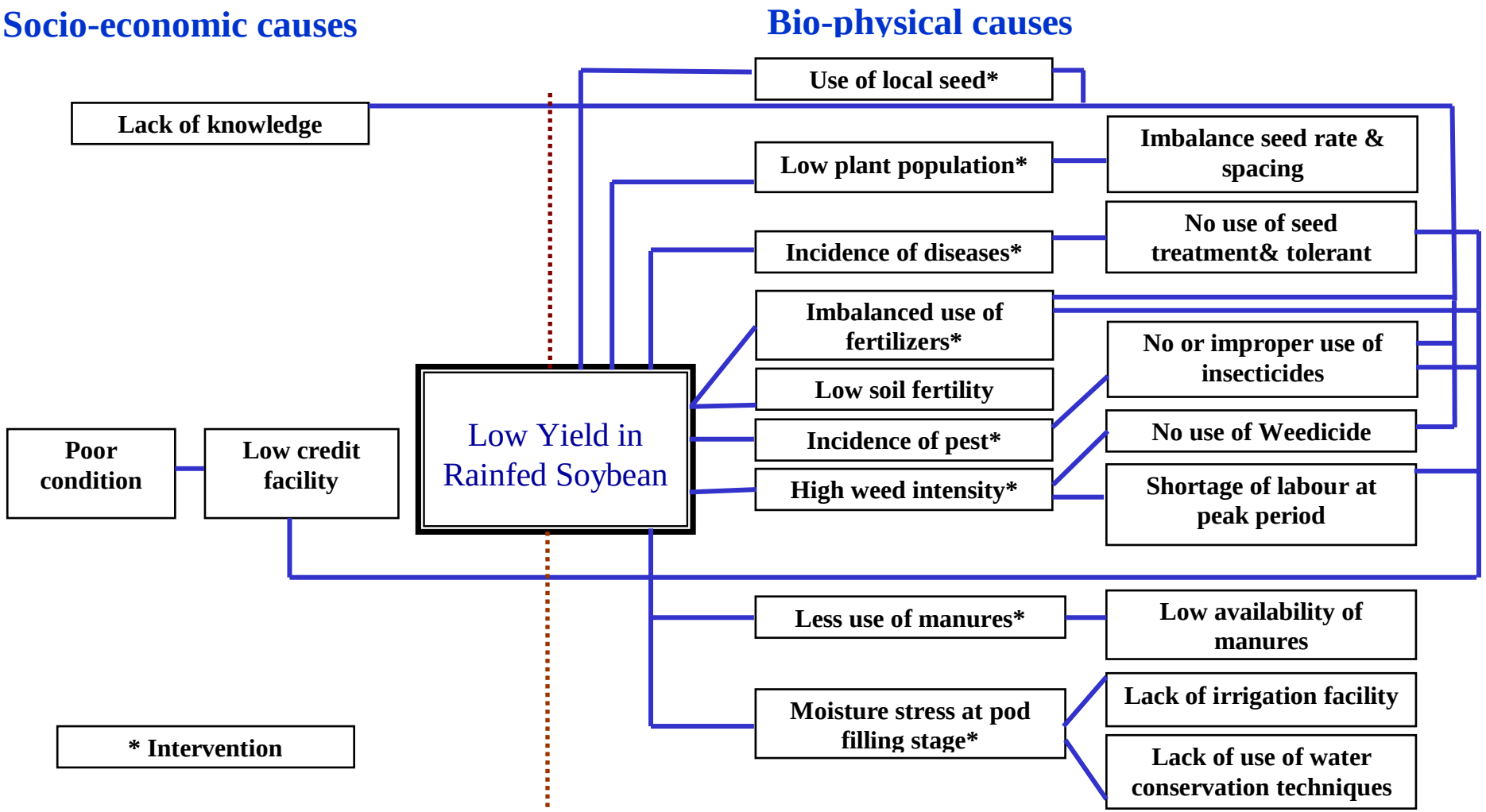
Problem Cause Diagram : Production System *Sugarcane Preseasonal* in Medium Black Clay Soils



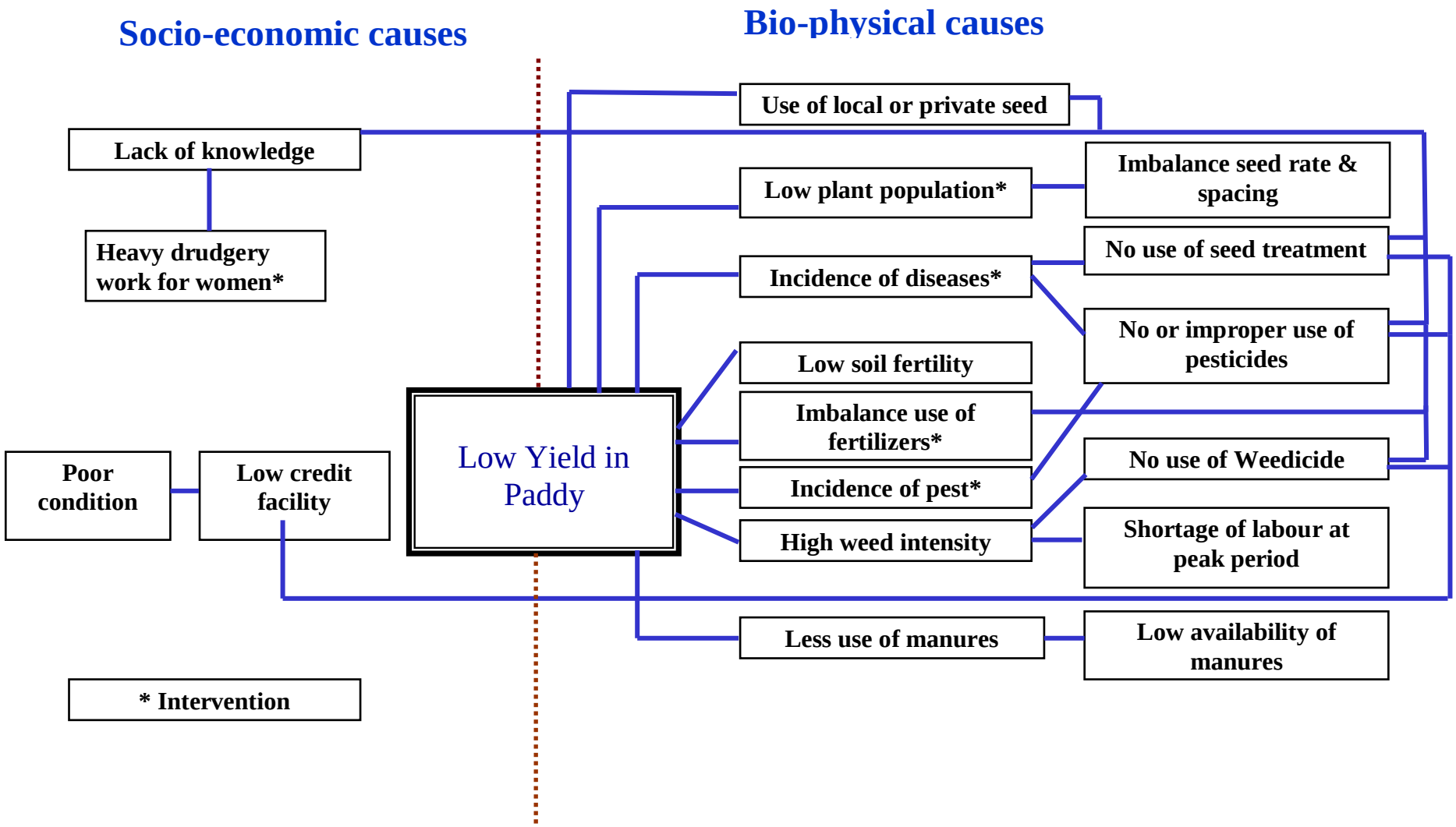
Problem Cause Diagram : Production System *Groundnut* in Medium Black Clay Soils



Problem Cause Diagram : Production System *Soybean* in Medium Black Clay Soils



Problem Cause Diagram : Production System *Paddy* in Medium Black Clay Soils



3.2. Technology Assessment (Kharif 2022, Rabi 2021-22, Summer 2022)

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	03		01					01		**05**
Varietal Evaluation		01	02							**03**
Integrated Pest Management										**00**
Integrated Crop Management										**00**
Integrated Disease Management										**00**
Small Scale Income Generation Enterprises										**00**
Weed Management										**00**
Resource Conservation Technology										**00**
Farm Machineries					01			01		**02**
Integrated Farming System										**00**
Seed / Plant production										**00**
Value addition										**00**
Drudgery Reduction										**00**
Storage Technique										**00**
Mushroom cultivation										**00**
Total	**03**	**01**	**03**	**0**	**01**	**0**	**0**	**02**	**0**	**10**

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	Gram	To Assess Spraying of Potassium nitrate on Gram	07	07	2.5
	Wheat	To Assess Performance of Wheat STCR	07	07	2.5
	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	Gram	To assess the performance of phule vikram variety of gram in irrigated condition	10	10	2.5
	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
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries	Vegetables	Use of Seedling Transplanter	10	10	-
	Drumstick	Use of drumstick harvester 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 conservation			
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 Phule Dhani (JL-1085).	1) Average no. of pods/ plant	28	Phule Dhani variety has recorded 28.74 % more yield over existing variety JL-24 and 13.76 % more yield on TAG-24 Variety	Crop growth of Phule Dhani 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	18.3	q/ha	31485	1.32
Technology option 2: TAG-24	PDKV Akola	20.71	q/ha	48000	1.49
Technology option 3: JL-1085	MPKV Rahuri	23.56	q/ha	65090	1.65

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 Phule Dhani (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	22	25	28
2) Average weight of 100 grains	Number	38.42	40.87	43.65
3) Average grain yield qtl/ha	Qtl/ha	18.3	20.71	23.56
4) B:C ratio		1.32	1.49	1.65

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**
96615	99830	3215	128100	164920	36820

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 Dhani variety of groundnut. bold grain size, vigorous growth, resistant to tikka. As per yield character, farmers gave first ranking to Phule Dhani.

8 Final recommendation for micro level situation.

New variety Phule Dhani 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. Phule Dhani 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. Phule Dhani 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 Phule Vikram variety of Bengal gram under irrigated condition.	7	T3- Technology assessed- New variety Phule Vikram	1) Average no. of pods/ plant	208	Phule Vikram variety has recorded 27.13 % more yield over existing variety Vijay and 15.12 % more yield on JAKI-9218 Variety	Crop growth of Phule Vikram was 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	16.88	q/ha	17220	1.29
Technology option 2: JAKI-9218	PDKV Akola	18.64	q/ha	21310	1.34
Technology option 3: Phule Vikram	MPKV Rahuri	21.46	q/ha	31790	1.49

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 Vikram 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 Phule Vikram.

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	153	178	208
2) Average Plant height	cm	72	76	80
3) Average grain yield qtl/ha	Qtl/ha	16.88	18.64	21.46
4) B:C ratio		1.29	1.34	1.49

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**
58740	64780	6040	75960	96570	20610

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 Vikram variety of Bengal gram. bold grain size, vigorous growth, resistant to Wilt and easy for mechanical harvesting. As per yield character, farmers gave first ranking to Phule Vikram.

8 Final recommendation for micro level situation.

New variety Phule Vikram 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 Phule Vikram 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. Phule Vikram gave more grain yield. bold grain size, resistant to Wilt 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

Cucumber	Irrigated	Conventional transplanting is performed by hand in bending posture which causes Back pain and leg pain, repetitive strain, time consuming	Assessment of Seedling transplanter for vegetable (seedlings) plantation	7	Seedling transplanter	1. Area covered by worker (Sq.mt/hr) = 2. Labour Requirement (Women/ ha) 3. Percent reduction in cost of cultivation	1. Area covered by worker (Sq.mt/hr) = 607.07 by seedling transplanter & 216.79 without seedling transplanter 2. Labour Requirement (Women/ ha) = 5 labours / ha 3. Percent reduction in cost of cultivation = 67.74%	Percent labour and cultivation cost saving of seedling transplanter is 67.74. It requires only 5 labour/ha where as 16 labours/ ha are required for plantation in check plot.	Seedling transplanter is very good as it saves time, labour and reduces drudgery. If possible only height of the transplanter should be adjustible	Height of the seedling transplanter should be increased or it should be adjustible	Because some of them need to bend a little while using transplanter

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)					
Technology option 2					
Technology option 3					

Results of On Farm Trial

OFT 4

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
Ginger	Irrigated	Nutrient deficiency and nutrient loss at the time of branching and at the time of bulb filling leads tolow yield.	Assesment of fertigation schedule for ginger	06	RDF with 120.75.75 NPK with 25 ton OM	Avg wt of 100 bulb No of branches No of bulbs per plant	2.62 kg	Fertigation helps in reducing cost on fetilizers	Happy to intoduce fertigation schedule		

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) RDF 120.75.75	Farmers Practice	8.74	Qtls/ha	143202	5.97
Technology option 2 75 % RDF 90.57.57 with 25 ton OM	MPKV Rahuri	9.02	Qtls/ha	153921	6.28
Technology option 3 RDF 120.75.75 with 25 ton om	MPKV Rahuri	10.08	Qtls/ha	177277	6.73

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

   Assesment of fertigation schedule for ginger

2. Problem Definition

   Nutrient deficiency and nutrient loss at the time of branching and at the time of bulb filling leads tolow yield.

3. Details of technologies selected for assessment

Applications of fertilizers through Fertigation at various levels and with splits.

4. Source of technology

MPKV Rahuri Krishidarshani 2017 pp 7

5. Production system and thematic area

Integrated Nutrient Management

6. Performance of the Technology with performance indicators

Particulars	Unit	T1	T2	T3
1) Average wt of 100 bulb	kg	2.56	2.58	2.62
2) No of branches per plant	Number	8.20	8.60	9.0

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

Happy to introduce Fertigation schedule with different splits at different plant growth stages.

8. Final recommendation for micro level situation

Fertigation helps in reducing cost on fertilizers

9. Constraints identified and feedback for research

NIL

10. Process of farmers participation and their reaction

Very enthusiastically

Results of On Farm Trial
OFT - 5

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
Wheat	Heavy soil	Nutrient deficiency and nutrient loss at the time of grain filling stage.	To assess the effect STCR equations in Wheat for 45 qts/ha and to study the efficiency of nutrient for high yield.	07	T_1 – RDF dose 120:60:40 kg /ha N: P_2O_5 : K_2O T_2 –Use of Fertilizers as per Soil Test Crop Response and as per target of 45 qtls/ha as T3 - RDF with 120 : 60 : 40 NPK kg/ ha with 10 ton of O.M	Average No. of tillers	30.5	STCR helps in achieving 45 qtls yield	Farmers enthusiastically participated programme.	---------- ------	------- ------- -----

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
T_1 – RDF dose 120:60:40 kg /ha N: P_2O_5 : K_2O	MPKV Rahuri	39.53	Qt/ha	117756	2.47
T_2 –Use of Fertilizers as per Soil Test Crop Response and as per target of 45 qtls/ha as	MPKV Rahuri	43.12	Qt/ha	137988	2.65
T3 - RDF with 120 : 60 : 40 NPK kg/ ha with 10 ton of O.M	MPKV Rahuri	50.71	Qt/ha	162325	2.77

Details of On Farm Trial.

1 Title of Technology Assessed

To assess the effect STCR equations in Wheat for 45 qts/ha and to study the efficiency of nutrient for high yield.

Problem Definition

Nutrient deficiency and nutrient loss at the time of grain filling stage.

2 Details of technologies selected for assessment

SAU for Wheat 120:60:40 kg /ha + 10 ton Organic matter.
Apply Basal dose of 60 :60: 40 kg NPK + 5 kg Ferrous Sulphate + 5 kg Zinc Sulphate + 10 ton organic matter and after one month apply 60 kg N + 5 kg Ferrous Sulphate + 5 kg Zinc Sulphate per ha.

3 Source of technology

MPKV Rahuri

4 Production system and thematic area

Irrigated

Integrated Nutrient Management,

5 Performance of the Technology with performance indicators

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

Application of SAU RDF for maize 120:60:40 kg /ha + 10 ton Organic matter. Apply Basal dose of 60 :60: 40 kg NPK + 5 kg Ferrous Sulphate + 5 kg Zinc Sulphate + 10 ton organic matter and after one month apply 60 kg N + 5 kg Ferrous Sulphate + 5 kg Zinc Sulphate per ha. the yields were increased and farmers were happy to adopt this trial than their individual cultivation.

8. Final recommendation for micro level situation

In Scarcity zone rainfall is below 750 mm the nutrients must be applied in split dose for more yields.

9 Constraints identified and feedback for research

Mixing of major and micro nutrients together should be applied immediately otherwise clogging may happens as because of hygroscopic in nature.

10 Process of farmers participation and their reaction

Farmers participated in Group discussion, training and method demonstrations on methods of fertilizer application and time of fertilizer application.

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: seedling transplanter is drudgery reduction technology to reduce the drudgery while plantation of seedlings developed by VNMKV, Parbhani
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:
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques
8. Final recommendation for micro level situation
9. Constraints identified and feedback for research : Nil
10. Process of farmers participation and their reaction: Farmers feedback was very good for this technology except the issue of height of transplanter
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 2022 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 phule Sangam 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
5	Fertilizer carrying bag	Drudgery reduction technology	Use of Fertilizer carrying bag	FLD, Training, Input supply, Field visits, Field Days	01	10	00
6	Twin wheel hoe	Drudgery reduction technology	Use of Twin wheel hoe	FLD, Training, Input supply, Field visits, Field Days	01	13	00
7	kitchen garden	Household food security by kitchen gardening & nutrition gardening	Development of Household kitchen garden	FLD, Training, Input supply, Field visits, Field Days	01	10	00
8	Spiral grain separator	Drudgery reduction technology	Use of Spiral grain separator	FLD, Training, Input supply, Field visits, Field Days	01	13	00
9	Wheat	INM	Demonstration of RDF for wheat for better yield	FLD, Training, Input supply, Field visits, Field Days	01	13	5.00
10	Finger millet	INM	Demonstration of use of Urea DAP Briquette in Nagli	FLD, Training, Input supply, Field visits, Field Days	01	13	5.00
11	Chick pea	INM	Spraying of 13.00.45 at flowering stage	FLD, Training, Input supply, Field visits, Field Days	01	13	5.00
12	Sugarcane	INM	Demonstration on Spraying of Multi Micro and Macro nutrient on Sugarcane	FLD, Training, Input supply, Field visits, Field Days	01	13	5.00

B. Details of FLDs implemented during 2022**(Kharif 2022, Rabi 2021-22, Summer 2022)** (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 2022	5.0	5.0	0	13	13	
2.	Soybean	ICM	Demonstration on phule Sangam Soybean in irrigated condition	Rabi 2022	5.0	5.0	0	13	13	
3	Sugarcane	INM	Use of liquid Acetobactor in Preseasonal Sugarcane crop	Rabi 2022	5.0	5.0	0	13	13	
4	Sugarcane	RCT	Demonstration of Zero tillage Sugarcane ratoon management	Rabi 2022	5.0	5.0	0	13	13	
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 2022	Rainfed	Light soil	280.61	5.43	430.19	Bengal gram	10 June 2021	22 Oct 2022	1870	69
Soybean	Kharif 2022	Irrigated	Heavy	115.0	3.12	35.55	Ratoon Sugarcane	18 June 2021	10 Oct 2022	1150	58
Suru Sugarcane	Rabi 2022	Irrigated	Heavy	325.32	6.64	476.27	Soybean	15 Dec 2022	Crop is standing	1130	58
Ratoon sugarcane	Rabi 2022	Irrigated	Heavy	316.40	6.87	432.12	Sugarcane	10 Dec 2022	Crop is standing	1150	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 Phule sangam 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 ratoon management, yield of Zero tillage sugarcane ratoon management is more conventional ratoon management.
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.

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 ratoon management, 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.	**Wheat :** Farmers were spray wheat only for pest and disease attack only and they were unknown about nutrient spray. Due to this trial they get maximum yields and with less cost. But the stage of spraying should be acute i.e. 55 and 70 DAS

6.	**Gram:** The size and weight of grains increased due to spraying 2 % Pot. Nitrate at flowering stage and at grain filling stage the yields increased from previous years.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	0		109	
2	Farmers Training	12		292	
3	Media coverage	07		0	
4	Training for extension functionaries	0		0	

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)	Phule Sangam (KDS-726)	13	5	33.64	27.26	30.45	25.74	18.30	76741	167475	90734	2.18	72639	141570	68931	1.94
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																			
Waterlogged Situation																			
Coarse Rice																			
Scented Rice																			
Wheat																			
Wheat Timely sown	INM	Demonstration of RDF for wheat for better yield	13	5	32.18	24.17	28.05	23.06	18.97	4.74	521.79	30854.04	56095.00	25240.9	1.82	28597.25	47206.67	18609.42	1.65
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	26.34	22.42	21.66	19.34	12	95	81	49473	86640	37167	1.75	48544	77360	28816	1.59
Finger Millet	INM	Demonstration of use of Urea DAP Briquette in Nagli	13	5.00	23.75	20.0	21.97	18.05	21.80	8.62	7.35	32205	48340	16135	1.50	29837	39803	9965	1.33
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																			
Chick pea	INM	Spraying of 13.00.45 at flowering stage	13	05	3.50	3.00	3.25	2.65	22.64	28.34	23.24	13752	23223	9471	1.68	12744	13822	1078	1.08
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														
Suru Sugarcane (Last year)	ICM	Use of Acetobacter culture at 60 and 90 DAS in suru sugarcane	13	5	1216	960	1088	997.6	9.06	18	12	126641	326400	199759	2.57	121543	292980	171437	2.41

Ratoon Sugarcane	RCT	Trash management, INM through crow bar.	13	5	Result awaited														
Ratoon Sugarcane (Last year)	RCT	Trash management, INM through crow bar.	13	5	1040	848.6	944.3	883.7	6.86	14	8	91782	283290	191508	3.08	97530	265110	167580	2.71
Preseasonal Sugarcane	INM	Demonstration on Spraying of Multi Micro and Macro nutrient on Sugarcane	13	5	175.0	150.0	159.21	129.83	22.63	249.33	21.83	84238.59	461100.00	376861	4.01	90833.9	376516.67	285683.41	3.04
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										

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																
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	Labor reduction (man days)	Cost reduction (Rs./ha or Rs./Unit etc.)

						Demo	Check	parameter	Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total
Spiral grain separator	soyabean	Drudgery reduction by use of spiral grain seperator	10	1	a) Time required (hrs/100kg) b) Labour Requirement (Women/100kg) c)Operating cost (Rs/100kg)	a) 0.276 b) 0.08 c)8.62 Rs	a) 20.23 b) 3.25 c) 625 Rs	a) 99.72 b) 99.92 c)91.38	-	-	2.66 women/100 kg	2.66 women/ 100 kg	-	616 Rs/100 kg	-	616 Rs/100 kg
Sulabha bag	soyabean	Use of Sulbha (Fertilizer carrying) Bag to reduce health hazards	10	1	a) Area covered (ha)/hr/woman b) Labour requirement women/ha c)Operating cost Rs/ha d)Time (hr)saved /ha	a)0.08 b)2.6 c)520 d)7.33 hrs	a)0.04 b)6.06 c)1212 -	a)92 b)57.09 c)57.09 decrease in operating cost -	-	-	3.46/ha	3.46/ha	-	Rs 865/ha	-	Rs 865/ha
Grain pro bags	wheat	Use of grainpro bags for grain storage	10	-	a) Shelf life (months) b) pest infestation (visual observation)	a) 12 b) no	a) 10 b) slightly	a) 20	-	-	-		-	-	-	-

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)
	Household food security by kitchen gardening & nutrition gardening	Development of Kitchen Garden for Food and Nutritional Security	13	13	70	25	180	% frequency of daily GLV consumption 73	% frequency of daily GLV consumption 26	1700	3200	1500	1.88	240	360	120	1.5

***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	01	35	01	36	0	1	1	35	02	37
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0	0	0
Micro Irrigation/irrigation	01	32	02	34	0	0	0	32	02	34
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	05	110	0	110	06	0	06	116	0	116
Soil & water conservation	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**7**	**177**	**3**	**180**	**6**	**1**	**7**	**183**	**4**	**187**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
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)										
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management	05	81	19	100	0	0	0	81	19	100
Production and use of organic inputs	02	124	20	144	0	0	0	124	20	144
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	01	04	19	23	0	0	0	04	19	23
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	01	19	04	23	0	0	0	19	04	23
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**9**	**228**	**62**	**290**	**0**	**0**	**0**	**228**	**62**	**290**
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	01	0	27	27	0	2	2	0	29	29
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	01	0	32	32	0	2	2	0	34	34
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	01	0	14	14	0	0	0	0	14	14
Value addition	01	33	05	38	2	0	2	35	5	40
Women empowerment	01	0	59	59	0	5	5	0	64	64
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl specify) Drudgery reduction	03	06	70	76	0	1	1	06	71	77
Total	**8**	**39**	**207**	**246**	**2**	**10**	**12**	**41**	**217**	**258**
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										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total										
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	01	32	22	54	0	0	0	32	22	54
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0	0	0
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**01**	**32**	**22**	**54**	**0**	**0**	**0**	**32**	**22**	**54**
GRAND TOTAL	**25**	**476**	**294**	**770**	**8**	**11**	**19**	**484**	**305**	**789**

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										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation	02	55	04	59	03	0	03	58	04	62
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	07	230	31	261	18	6	24	248	37	285
Soil & water conservation	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**9**	**285**	**35**	**320**	**21**	**6**	**27**	**306**	**41**	**347**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops										
Off-season vegetables										
Nursery raising										

Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
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)										
III Soil Health and Fertility Management										
Soil fertility management	01	32	04	36	0	0	0	32	04	36
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	10	291	30	321	0	0	0	291	30	321
Production and use of organic inputs	04	168	12	180	0	0	0	168	12	180
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	02	62	48	110	0	0	0	62	48	110
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**17**	**553**	**94**	**647**	**0**	**0**	**0**	**553**	**94**	**647**
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	01	0	21	21	0	0	0	0	21	21
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	03	65	60	125	6	1	7	71	61	132
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0
Value addition	01	0	74	74	0	09	09	0	83	83
Women empowerment	01	02	68	70	01	03	04	03	71	74
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**6**	**67**	**223**	**290**	**7**	**13**	**20**	**74**	**236**	**310**
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										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total										
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	01	28	03	31	0	0	0	28	03	31
Formation and Management of SHGs	01	26	0	26	0	0	0	26	0	26
Mobilization of social capital	02	38	04	42	0	0	0	38	04	42
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	01	22	0	22	0	0	0	22	0	22
Total	**5**	**114**	**7**	**121**	**0**	**0**	**0**	**114**	**7**	**121**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**37**	**1019**	**359**	**1378**	**28**	**19**	**47**	**1047**	**378**	**1425**

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	01	35	01	36	0	1	1	35	02	37
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0	0	0
Micro Irrigation/irrigation	03	87	06	93	3	0	3	90	6	96
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	12	340	31	371	24	6	30	364	37	401
Soil & water conservation	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**16**	**462**	**38**	**500**	**27**	**7**	**34**	**489**	**45**	**534**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl specify)										
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)										
III Soil Health and Fertility Management										
Soil fertility management	01	32	04	36	0	0	0	32	04	36
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	15	372	49	421	0	0	0	372	49	421
Production and use of organic inputs	6	292	32	324	0	0	0	292	32	324
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	1	4	19	23	0	0	0	4	19	23
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	3	81	52	133	0	0	0	81	52	133
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**26**	**781**	**156**	**937**	**0**	**0**	**0**	**781**	**156**	**937**
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	0	27	27	0	2	2	0	29	29
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	1	0	21	21	0	0	0	0	21	21
Minimization of nutrient loss in processing										
Processing and cooking	4	65	92	157	6	3	9	71	95	166
Gender mainstreaming through SHGs										
Storage loss minimization techniques	1	0	14	14	0	0	0	1	0	14
Value addition	2	33	79	112	0	11	11	33	90	123
Women empowerment	2	2	127	129	1	8	9	3	135	138
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	3	6	70	76	0	1	1	6	71	77
Total	**8**	**41**	**290**	**331**	**1**	**20**	**21**	**43**	**296**	**352**
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										
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total										
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	2	60	25	85	0	0	0	60	25	85
Formation and Management of SHGs	1	26	0	26	0	0	0	26	0	26
Mobilization of social capital	2	38	4	42	0	0	0	38	4	42
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	1	22	0	22	0	0	0	22	0	22
Total	**6**	**146**	**29**	**175**	**0**	**0**	**0**	**146**	**29**	**175**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**62**	**1495**	**653**	**2148**	**36**	**30**	**66**	**1531**	**683**	**2214**

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	02	125	110	235	20	16	36	145	126	271
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	01	38	02	40	0	0	0	38	02	40
Any other (pl.specify)	03	88	48	136	0	0	0	88	48	136
TOTAL	**6**	**251**	**160**	**411**	**20**	**16**	**36**	**271**	**176**	**447**

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	125	110	235	20	16	36	145	126	271
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	1	38	2	40	0	0	0	38	2	40
Any other (pl.specify)	3	88	48	136	0	0	0	88	48	136
TOTAL	**6**	**251**	**160**	**411**	**20**	**16**	**36**	**271**	**176**	**447**

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										
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	**02**	**58**	**04**	**62**	**0**	**0**	**0**	**58**	**04**	**62**
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	**02**	**58**	**04**	**62**	**0**	**0**	**0**	**58**	**04**	**62**

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	**01**	**73**	**0**	**73**	**12**	**0**	**12**	**85**	**0**	**85**
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
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)	**02**	**52**	**18**	**70**	**02**	**01**	**03**	**54**	**19**	**73**
TOTAL	**3**	**125**	**18**	**143**	**14**	**1**	**15**	**139**	**19**	**158**

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	**1**	**73**	**0**	**73**	**12**	**0**	**12**	**85**	**0**	**85**
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
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**	**58**	**4**	**62**	**0**	**0**	**0**	**58**	**4**	**62**
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**	**125**	**18**	**143**	**14**	**1**	**15**	**139**	**19**	**158**

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	**01**	**73**	**0**	**73**	**0**	**0**	**0**	**73**	**0**	**73**
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)										
Total										
GRAND TOTAL	**01**	**73**	**0**	**73**	**0**	**0**	**0**	**73**	**0**	**73**

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										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Value addition										
Others (pl. specify)										
Total										
Livestock and fisheries										
Dairy farming	**01**	**18**	**13**	**31**	**0**	**0**	**0**	**18**	**13**	**31**
Composite fish culture										
Sheep and goat rearing										
Piggery										
Poultry farming	**01**	**22**	**16**	**38**	**0**	**0**	**0**	**22**	**16**	**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.										
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total										
Grand Total										

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)				
Diagnostic visits				
Field Day	05	88	21	109
Group discussions	10	136	15	151
Kisan Ghosthi	0	0	0	0
Film Show	0	0	0	0
Self -help groups	0	0	0	0
Kisan Mela	02	420	17	437
Exhibition	01	206	04	210
Scientists' visit to farmers field	97	330	869	1199
Plant/animal health camps	01	47	04	51
Farm Science Club	0	0	0	0
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	0	0	0	0
Method Demonstrations	02	13	2	15
Celebration of important days	08	500	50	550
Special day celebration	02	234	13	247
Exposure visits	10	146	13	159
Others (pl.specify)	**138**	**2120**	**1008**	**3128**
Attain Committee	01	0	11	11
Celebration of Poshan Abhiyan	01	107	6	113
Garib kalyan sammelan programme	01	778	12	790
Kisan Sammelan	01	424	04	428
Krishi Sanjivani Saptah	03	170	24	194
KVK Unit attachment	03	124	01	125
Lecture Delivered as Resource Person	31	2037	188	2225
Live Telecast	02	142	0	142
Monthly District Workshop	01	04	21	25
News Paper Coverage	38	0	0	0

Online Meeting	01	02	56	58
Participation as Judge	01	0	28	28
Participation in Agri. Exhibition	01	0	0	0
Participation in Annual Zonal Workshop	01	0	101	101
Participation in certificate distribution	01	04	03	07
Participation in Conference	02	0	0	0
Participation in Exhibition	01	09	09	18
Participation in HRD Training	01	0	0	0
Participation in Inauguration	01	0	0	0
Participation in Krishi Sanjivani Saptah	03	29	07	36
Participation in Meeting	14	109	584	693
Participation in National Conference	01	0	860	860
Participation in Online Meeting	07	0	673	673
Participation in online seminar	01	0	0	0
Participation in online training	01	0	0	0
Participation in Webinar	01	0	0	0
Participation in workshop	04	0	287	287
Radio Talk	35	0	0	0
Total	**159**	**3939**	**2875**	**6814**

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

Details of other extension programmes:

Particulars	Number
Electronic Media (CD./DVD)	00
Extension Literature	04
Newspaper coverage	38
Popular articles	02
Radio Talks	35
TV Talks	00
Animal health camps (Number of animals treated)	51
Social Media (No. of platforms Used)	07
Others (pl. specify)	0
Total	**137**

3.6 Online activities during year 2022

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				
1	Online Training	Google meet	Training on Rabi crop season Compitation	01	42
2					
3					
4					

5					
	Total			1	42
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	Live telecast	**Video conferencing**	Live telecast of Union Agril Minister in National farmers day programme	01	50
2	Online meeting	Online meeting	RAMETI Online meeting on Sponsored training	01	58
3	Conference	Online Conference	Conference on Millets	01	110
4	Online meeting	Online meeting	Milles Production, Processing and Marketing	01	60
	Online meeting	Online meeting	Online meeting on Natural farming	01	72
	Online meeting	Online meeting	Online meeting on budget implements	01	78
	Online meeting	Online meeting	Online meeting on Animal veterinary	01	80
	Online meeting	Online meeting	Meeting on kisan sarathi	01	100
	Online meeting	Online meeting	Meeting on PM Live Programme	01	300
	Online Workshop	Online Workshop	Technical Workshop on	01	195

			Millets		
	Total			10	1103
	Grand Total (A+B+C+D+E)			**11**	**1145**

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		20	50000	Sale to MAHABEEJ
Oilseeds	Soybean	Phule Sangam (KDS-726)		40	240000	Keep as seed for kharif season
	Groundnut	JL 286		10.30	134160	24
		Phule Chaitanya		6.90	89700	18
Pulses				77.2	513860	42
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
Aonla		N -7		20	60000	50
Total				**97.02**	**573860**	**92**

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						

Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others						
Total						

Production of Bio-Products

Bio Products	**Name of the bio-product**	**Quantity Kg/Lit**	**Value (Rs.)**	**No. of Farmers**
Bio Fertilizers	Azolla	12	2025	12
	Waste Decomposer	200	4000	15
	Vermi compost	260	2065	4
Bio-pesticide				
Bio-fungicide				
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)	100	Black Astrolop	Chicks	120	100	750	30
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	Title	Authors name	Number
Research papers			
Technical reports			
News letters			
Technical bulletins			
Popular articles	04	Dr. B.S Khandekar, Mr. Nilesh Thorat, Mr. V.R Mahajan, Dr. P.P Deshmukh	04
Extension literature	06	Dr. B.S Khandekar, Mr. Nilesh Thorat, Mr. V.R Mahajan, Dr. P.P Deshmukh	2000
Others (Pl. specify)			
TOTAL	**10**		**2004**

C. Details of Electronic Media Produced

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

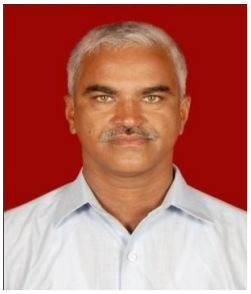
D. Details of Social Media Platforms Created / Used

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)	**9**	**KVK Kalawade Karad**	**131**
2	Facebook page/ Account (no of Post)	**-**	**KVK Karad Dist Satara**	**4807**
3	Mobile Apps	**NIL**	**NIL**	**NIL**
4	WhatsApp groups	**32**	**Farmers Whatsapp**	**2560**

			group	
5	Twitter Account	**1**	**KVK Satara - I**	
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).

1. **Situation analysis/Problem statement:**
   Farmers Information –



Name – Mr. Shekhar Dinkar Patane,

Address – A/P –Velang, Taluka – Koregaon, District – Satara, Mobile number – 9423968228, Age – 52,

Education level – 10th, Size of land holding – 3 acres

Agro ecological Situation - Sugarcane based cropping system.

Present sugarcane seedlings production technology is very costly and common farmers cannot produce sugarcane seedlings. High cost & special vehicle required for transportation from nursery to field, handling cost is also more.

2. **Plan, Implement and Support**:

Mr. Shekhar Dinkar Patane faced the problem of high cost of sugarcane seedlings and high transportation cost from nursery to field. Hence, he decided to prepare seedlings of sugarcane in his own field. The cost of tray and shed required was also high. Hence, he used empty fertilizer bags to prepare seedlings. He prepared 7 inch trench in his own field in which empty fertilizer bags were put. Then 3 inch layer of mixture of soil, Vermicompost & neemcake was made. Cloropyriphos was added to control white grub infestation. Then good quality sets 9 to 10 months old were used to prepare seedlings. Treated sets were planted in trench. These sets of germinated nicely & seedlings were ready within 30 days after plantation of sets in the trench. To pick up the plantlets simple technology was used that is uplifting of fertilizer bag which was buried in the trench earlier. This technology saved the cost of sugarcane plants and cost of transportation of seedlings from nursery to field.

Easy to prepare sugarcane seedlings, less cost for preparation and minimize cost of transportation of seedlings farm nursery to farm.

3. **Output and Out Come**

Market prize of Sugarcane seedlings Rs.3 per seedling. For 1 acres 6000 seedlings required

6000 x 3 = Rs.18000

For this method Cost of Seedling Preparation for 1 acre was – Rs. 4120

Save – Rs. 13880

4. **Impact –**

More than 60 farmers from Maharashtra and Karnataka state used this technology.

	
Treated sets put in to plastic strip buried in soil and give 3 inch layer of soil for his better germination	plastic strip buried in soil
	
Uprooting of prepared sugarcane seedlings from soil.	Sets germinated nicely & seedlings were ready within 30 days after plantation of sets in the trench.

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

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/No

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**	**-**	**262**
02	**Research projects**				
03	**Training programmes**	**Training Programme**	**2**	**2**	**79**
04	**Demonstrations**				
05	**Extension Programmes**				
	Kisan Mela	**Kisan Mela**	**1**	**1**	**122**
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
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 2022: Yes, If Yes

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

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology

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

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 **17.22 Quintals** of seed of JL-286 Variety to **19 farmers** from **19 villages** and covered **4 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 **2700 Kg U-DAP briquettes to 980 number of farmers and 3000 Kg NPK briquettes to 275 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 2022			
Feb 2022	1	20858	
March 2022	1	20858	
April 2022			
May 2022			
Jun 2022	1	23367	
Jul 2022	1	23367	
Aug 2022	1	23367	
Sept 2022	1	23367	
Oct 2022	1	23445	
Nov.2022	4	64061	
Dec.2022	1	20858	

Name of KVK	Message Type	Type of Messages						
		Crop	**Livestock**	**Weather**	**Marke-ting**	**Aware-ness**	**Other enterprise**	**Total**
	Text only	7	0	0	0	4	0	11
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	Total Messages	**7**	**0**	**0**	**0**	**4**	**0**	**0**
	Total farmers Benefitted	158629	**0**	**0**	**0**	**64061**	**0**	**222690**

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	1500 Kg	1800	27500	
2	Azolla Unit	2016	0.01	Azolla Pinata	Azolla	210 Kg	10000	31500	

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	March 2022	0.40	MACS 6222	Seed	20	60000	35000	
Oilseeds	Soybean	Oct - 2022	1.00	KDS 726	Seed	40	48000	198000	
	Groundnut	Kharif 2022	0.30	JL 286 Phule Chaitanya	Seed	16	82000	170000	
Fibers									
Spices & Plantation crops									
Floriculture									

Fruits	Anola	Nov 2022	4.0	N -7	Fruits	3 Ton	45000	15000	
	Mango	May 2022	4.0	Alphanso, Keshar	Fruits	2 ton	30000	80000	
Vegetables									

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	
	Bio-Fertilizers					
	Bio-Fungicides					
	Bio-pesticides					
	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 **2022**	4	2	
February **2022**	2	2	
March **2022**	0	0	
April **2022**	0	0	
May **2022**	2	2	
June **2022**	0	0	
July **2022**	0	0	
August **2022**	4	4	
September **2022**	2	0	
October **2022**	6	4	
November **2022**	2	2	
December **2022**	2	2	

F. Database management

S. No	Database target	Database created
	Kisan Sarathi Registration	**5000**

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
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
0.02	Vegetable crops	12	340
	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**
4	Vegetable crops	10	22
	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 2022-23 (Rs. in lakh)(Till Dec, 2022)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	12700000.00	11597000.00	9019309.00
2	**Traveling allowances**	200000.00	200000.00	171966.00
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	50000.00	21000.00	20033.00
B	POL, repair of vehicles, tractor and Equipments	50000.00	40000.00	35000.00
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	250000.00	150000.00	158500.00
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	200000.00	150000.00	149500.00
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	300000.00	200000.00	225000.00
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	300000.00	200000.00	200000.00
G	Training of extension functionaries	0	0	0
H	Maintenance of buildings	0	0	0
I	Establishment of Soil, Plant & Water Testing Laboratory	0	0	0
J	Library	0	0	0
TOTAL (A)		**14050000.00**	**12558000.00**	**9979308.00**
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**	**0**
C. REVOLVING FUND		**1330536.02**	**1330536.02**	**2029536.00**
GRAND TOTAL (A+B+C)		**15380536.02**	**13888536.02**	**12008844.00**

C. 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 March2021	4925842.10	672600.50	3728956.49	2065868.48
April 2021 to March, 2022	2065868.48	760000.00	1495332.46	1330536.02
April 2022 to March 2023	1330536.02	699000.00	2029536.00	124000.00

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. Nagesh Gawade	**SMS - Horticulture**	**Importance of Millets**	**ICAR**	**Online**	**18/12/2022**
Dr. Priyadarshani Deshmukh	**SMS – Home Science**	**Importance of Millets**	**ICAR**	**Online**	**18/12/2022**

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

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- SwachhtaPakhwada, Cleaning, Awareness Workshop, Microbial based Agricultural Waste Management by Vermicomposting etc.*	No. of Programmes conducted	No. of Participants
1	Visits to community waste disposal sites	01	12
2	Cleaning of sewerage & water lines	01	15
3	Cleanliness and sanitation drive at residential colonies	01	18
4	waste management, generation of wealth from waste	01	14
5	technology demonstrations on agricultural technologies for conversion of waste to wealth	01	22
6	Campaign on cleaning of sewerage & water lines	01	28
7	Sanitation Campaigns at village level	01	32
8	Cleanliness and sanitation drive in the adopted village	01	26
9	Cleaning of public places	01	11
10	Awareness on waste management	01	35
11	Taking Swachhata pledge, Display of banner	01	38
12	digitization of office records, cleaning of offices	01	26
13	campuses on cleanliness	01	24
14	Involvement of VIP in Swachhata Programme	01	19
15	Cleanliness drive at KVK Campus	01	27
16	Cleanliness drive and decomposition of waste material	01	38
17	Awareness on disposal of degradable and non degradable of bio waste	01	22
18	Press conference on highlighting Swachhata pakhwada activity	01	18
19	Cleanliness drive in kvk campus	01	24
20	Swachhata in school campus	01	26
21	Eradication of weed in kvk campus	01	35
22	Eradication of weed in kvk campus	01	39

21. Books published 2022-23

Title of the Book	Authors	ISBN No (Optional) / Pages No	Description/review of the book (one paragraph/sentence)
Vermicompost Production	**Dr. B.S Khandekar**	**76**	**Book was published by Dr. B.S Khandekar, SMS Soil Science to the farmers. This book covered topics on Importance of Vermicompost, Species of verms, Methods of Vermicompost, Use of Vemiwash, and marketing of products**

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	61	1467	635	2102
Rural youths	07	295	222	517
Extension functionaries	05	238	23	261
Sponsored Training	01	27	20	47
Vocational Training	01	14	11	25
Total	**75**	**2041**	**911**	**2952**

2. Frontline demonstrations

Crops/Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	0	0	0
Pulses	12	5.0	12
Cereals	53	20	53
Vegetables	0	0	0
Other crops	82	15.02	82
Hybrid crops	0	0	0
Total	**147**	**40.02**	**147**
Livestock & Fisheries	0	0	0
Other enterprises	0	0	0
Total	0	0	0
Grand Total	**147**	**40.02**	**147**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	8	71	71
Livestock	0	0	0
Various enterprises	2	10	10
Total	**10**	**81**	**81**
Technology Refined			
Crops	0	0	0
Livestock	0	0	0
Various enterprises	0	0	0
Total	0	0	0
Grand Total	**10**	**81**	**81**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	138	3128
Other extension activities	159	6814
Total	**297**	**9942**

5. Mobile Advisory Services

		Type of Messages

Name of KVK	Message Type	Crop	Livestock	Weather	Marke-ting	Awar e-ness	Other enterprise	Total
	Text only	7	0	0	0	4	0	11
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	Total Messages	**7**	**0**	**0**	**0**	**4**	**0**	**0**
	Total farmers Benefitted	**158629**	**0**	**0**	**0**	**64061**	**0**	**222690**

6. Seed & Planting Material Production

	Quintal/Number	Value (Rs.)
Seed (q)	77.02	513860
Planting material (No.)	0	0
Bio-Products (kg)	472	8090
Livestock Production (No.)	100	750
Fishery production (No.)	0	0

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value (Rs.)
Soil	281	63200
Water	58	8700
Plant	0	0
Total	**339**	**71900**

8. HRD and Publications

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