ICAR-ATARI, Pune

DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2021

(January 2021 to December 2021)

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 -

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	-

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:

1.5. Staff Position (as on December, 2021)

					If Permanent, Please indicate			If Temporary, pl. indicate the
Sl. No.	Sanctioned post	Name of the incumbent	Mobile No.	Discipline	Current Pay Band	Current Grade	Date of joining	

						Pay		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. Nagash V. 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 S. 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):

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 (6)	ICAR	93 – 94	199.12	777693	-	-	-
4.	Demonstration Units (2)	KVK R/F	05 – 06	70.00	280563	-	-	-
5	Fencing							
6	Rain Water harvesting system	RKVY	05 – 06	64.00	529450	-	-	-
7	Threshing floor							
8	Farm godown							
9	ICT lab							
10	Other							

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) Equipments& AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer -2	March 2003	60000	Need to Upgrade
Printer-1	February 2003	11550	Not Working
UMAX Scanner -1	February 2003	5000	Working
UPS	February 2003	13500	Needs to replace
Colour Printer	July 2002	4500	Not working
Audio System- Ahuja	March 2005	8575	Working
Mic – 2	March 2005	1360	Working
Speakers – 2	March 2005	2050	Working
TV Onida 29 ''	March 2005	16690	Working
DVD Onida	March 2005	4785	Working
Laptop	March 2005	60770	Working
Printer Cum Fax	March 2006	7000	Working
Digital Camera	March 2004	20000	Not Working
LCD Projector –Optoma	March 07	59223	Not Working
LCD Projector Screen	March 07	11289	Not Working
Video Camera Digital – Sony	March 07	29432	Not Working
Multi Seed Drill Planter	March 03	27600	Working
Tractor Trolley	March 03	55000	Working
Tractor Side Plough	March 03	8730	Working
Rotavator (130DI)	March 2006	86431	Working
Sugarcane Rotavator ridger	March 2006	21500	Working
Plough Popular	March 2006	36036	Working
Stabilizer for Xerox	March 2008	9175	Not Working
Xerox machine- Canon Make	March 2008	132500	Not Working
Computer (Dell Optiplex 755)-5	March 2009	Funded by ICAR/ERNET	Working
Server (Dell PE 2900) -1	March 2009		Working
Dot matrix printer (TVS MSP-245) – 1	March 2009		Working
Dax 24 port Switch (DX-5024-GSE) – 1	March 2009		Working
650 VA UPS (APC) – 5	March 2009		Working
3 KVA UPS (APC) with 16 batteries – 1	March 2009		Working
HP Laserjet P 1505 Printer – 1	March 2009		Working
HP Scanner G3100 – 1	March 2009		Working
Computer table (Godrej) – 6	April 2009		Working
Printer table (Godrej) – 2	April 2009		Working
4103 I Chair – 10	April 2009		Working
AC (Onida 1.5 Ton) – 1	April 2009		Working
1.8 M Prodelin Antenna – 1	July 2009		Not Working
Viasat Linkstar IDU – 1	October 2009		Not Working
5 Watt C-Band ODU with external PSU – 1	October 2009		Not Working
LNBC – 1	October 2009		Not Working
VOIP & FAX equipment – 1	October 2009		Not Working
Seed cum fertilizer drill	March 2009	30000	Working

Grain & seed cleaner	March 2009	20000	Working
Bullock drawn Sugarcane fertilizer Driller	March 2009	5000	Working
Genset Kirloskar	March 2009	249700	Not Working
Solar battery charging system	March 2009	78000	Not Working
Solar Integrated power system with Battery backup, fitting & other	March 2009	357013.18	Not Working
Solar water heater for guest house	March 2009	85500	Not Working
Water tank 1000 lit	March 2009	2644	Working
Meeting hall with colour, table, chair, carpet, POP, curtains, Aluminum windows & electric fitting etc.	March 2009	96441	Working
Wooden sofa set	March 2009	8437	Working
Microphone Ahuja	March 2009	2715	Working
Office cupboard & rack	March 2009	29700	Working
AC for Meeting hall – 2	March 2009	37000	Working
HP Laser colour printer	April 2016	35300	Working
Laser printer Cannon	August 2016	8000	Working
Brookbond Tea and coffee machine	April 2016	21300	Working
Laptops with inverter and internet system (Two)	March 2017	95000	Working
LCD Projector	March 2021	32000	Working
DSLR Cammera	March 2021	40000	Working
Mike with speaker trolly	March 2021	16000	Working

1.8. Details of SAC meeting conducted in the year:

Date	Name and Designation of Participants	Salient Recommendations	Action taken

2. DETAILS OF DISTRICT / JURISDICTION AREA OF KVK

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

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

S. No	Farming system/enterprise	Names of talukas covered
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)

a) Soil type

S. No.	Agro-climatic Zone	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.

b)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
	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.
	ANNUAL IRRIGATED	South eastern part of Phaltan, Middle arts of Karad along with Krishna Koyna river, Central part of Satara & Wai. Black fertile soils and 650 mm to 1000 mm annual rainfall are the characteristics of this zone. Sugarcane, groundnut, soybean and turmeric are major Kharif crop and wheat, summer groundnut &

		gram are rabi crops. Vegetable crops are also potential crops of this zone

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Medium black to Deep black	These are found along the belts of the Krishna and Koyna rivers. They are brownish to dark brown in colour. The chemical analysis of the soil shows that the soil is rich in lime. At certain places like Phaltan, a clear band of lime is found at a depth of a few feet in the soil. The nitrogen content of the soil is fairly good and the organic matter content of the soil is high. The soil is rich in clay content and colloidal complex is fully saturated with exchangeable bases. This is due to dry spell of monsoon. Medium black soil is also to be found in Koregaon, western part of Vaduj, Khandala Taluka and in the northern part of the Phaltan Taluka along the Nira River. The soils in the eastern part of the taluka are deep to medium black. Crops like groundnut, wheat, Sorghum (rabi) and, at certain places, where irrigation facilities are available, sugar-cane and turmeric are taken.	42800
2	Lighter soils	Light soil of the district is locally called as malran or murum mal and brown in colour. These are hard and rocky and are commonly found in the planes on the eastern side. These are also to be found on the slopes of the hillocks situated in the eastern side. These soils are well-drained, light in nature and sandy loam in texture. They are rich in lime but shallow in depth. The chemical analysis of the soil indicates that they are deficient in fertility constituents like nitrogen, organic carbon and phosphorus. However, the potash contents of the soils are fairly high. The clay complex of the soils is poor in exchangeable bases. Therefore, the soils in this category yield good produce only if bulky manures and heavy fertilizers are applied and proper irrigation is provided. At certain places, where sufficient water is available, paddy crop is also taken. However, the soil is better suited for Pearl Millet.	574000
3	Lateritic soils	Lateritic soils are red in colour and are mainly found in Mahabaleshwar hills and along the whole mountain range comprising the entire Koyna valley On account of the red colour of the soil, they are locally known as tambad mati at certain places blending of the black soils with laterite or red soils has taken place. On account of heavy rainfall in this region, these soils are subjected to heavy leaching and a high degree of erosion. The reason for the red colour of the soil is the high content of Iron Oxides in the sesqui-oxides of these soils. The depth of the soil varies from 1' to 10'. The chemical analysis of these soils indicates that they are rich in clay and clay-loam in texture. They are rich in nitrogen but poor in organic matter. The main crops taken on them consist of the rice and hill millets like ragi, vari and nachni. At certain places, rice is taken by adopting the kumri cultivation. At places with high altitudes, especially around Mahabaleshwar, fruits like strawberries, goose-berries which require cold climate are also grown.	425400

2.4. Area, Production and Productivity of major crops cultivated in the area of jurisdiction of KVK (2021)

S. No	Crop	Area (ha)	Production (MT)	Productivity (q./ha)
A	Cereals			
1	Paddy	45000	74500	16.55
2	Wheat	37100	63300	17.07
3	Kh. Sorghum	22400	27900	12.47
4	Ragi	4400	4400	9.93
5	Rabi Sorghum	137000	105200	7.67
6	Pearl Millet	67800	58200	8.59
7	Maize	18200	53500	29.40
8	Other Cereals	2600	3200	19.50
B	Pulses			
9	Green Gram	8000	3600	4.51
10	Black Gram	3800	2000	5.29
11	Red gram	2000	1000	4.75
12	Gram	30000	26400	8.80
13	Other Pulses	36700	14500	5.80
C	Cash crops			
14	Sugarcane	80600	7979400	99 T
15	Turmeric	963	2334	2424
16	Ginger	966	3361	3479
D	Oilseeds			
17	Groundnut	32800	43800	13.35
18	Soybean	73000	142500	19.52
19	Sunflower	100	100	6.00
20	Safflower	700	200	3.00
21	Summer Groundnut	2500	6000	24.00
22	Other Oilseeds	100	00	4.25
E	Vegetables			
23	Potato	4805	7207	1500
24	Onion	6549	60187	9190
25	Tomato	1164	8286	7119
26	Chilli	929	2775	2987
27	Brinjal	753	7294	9687
28	Pea	336	1017	3027
29	French bean	5746	6229	1084
30	Coriander	2834	804	284
F	Fruits			
31	Mango	879	7559	8600

32	Banana	244	2693	11037
33	Guava	319	3782	11856
34	Pomegranate	984	9381	9534
35	Grapes	232	3999	17237
G	Greenhouse	52	---	---

Source: District agriculture department.

2.5. Weather data (2021)

Month	Rainfall (mm)	Temperature (^{0} C)		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

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

Category	Population	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 (2018)	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 (2017)	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:

Crop/ Enterprise	Thrust area
SUGARCANE	Use of Integrated Nutrient Management – Trash management in Ratoon, Use of NPK briquette & fertilizers as per STCR
	Use of Biofertilizer & Green Manuring crops (Organic inputs)
	Introduce wide row and single eye bud planting in sugarcane (Nursery management and ICM
	Use of Drip & Long rows method of irrigation (Micro irrigation)
	Create awareness for maintenance of good quality planting material on its own farm and promote low cost sugarcane nursery techniques (Farm mechanization)
	Create awareness about Pest and Disease management especially with IPM technology (IPDM)
SOYBEAN	Introduction of new moderately rust resistant KDS-726 and DS – 228 varieties (Varietal evaluate)
	Create awareness for use of recommended Bio fertilizer for seed treatment, Use of Balance fertilizers & also use of spray grade fertilizer (INM)
	Use of growth retardant like Lihocine in heavy black soils (ICM)
	IPM of Spodoptera leutera and other pests and diseases (IPM)
GROUNDNUT	Introduction of new varieties likeKDG-128, JL – 286, & JL-501 (Varietal evaluate)
	Use of BBF method of planting (ICM)
	Use of Integrated Nutrient Management in Groundnut (INM)
	Control of Tikka, Rust and other diseases in Kharif Groundnut by following IDM technology (IPDM)
RICE	Use of Four Fold Rice planting method (Resource conservation technology)
	Use of Integrated Nutrient Management by promoting use of Urea DAP & NPK Briquette. (IPM)
	Proper management of water & use of IPM technique control of disease pest. (Water management)
WHEAT	Use of correct planting method with recommended seed rate and timely sowing.(ICM)
	Use of Integrated Nutrient Management in Wheat. (INM)
	Introduction of new rust resistant and high yielding varieties like Trimbak, Samadhan, MACS-6222 (Varietal evaluate)
	Biological control Wheat aphids and rust management.(Biological control of pest and disease)
RABI SORGHUM	Introduction of new varieties as per soil type like Phule Vasudha, Phule Anuradha, Phule Revati, Phule Suchitra etc. (Varietal evaluate)
	Create awareness for in situ water conservation & provide two protective irrigations. Zero tillage sowing for water conservation and more yield. (Resource conservation technology)
	Use of Integrated Nutrient Management in Rabi Jowar (INM)
	Management of Shoot fly and smut diseases.(IPM)
GRAM	Use of new varieties like Digvijay & Vijay (Varietal evaluate)

	IPM in Gram for control of pod borer and wilt (IPM)
	Change the existing method of planting with ridges & furrow and BBF sowing, use of Sprinkler irrigation method. Create awareness for proper water management in Gram (ICM)
	Use of Integrated Nutrient Management, use potash with FYM and foliar nutrient application (INM)
Redgram	Introduction of new high yielding improved varieties like Vipula (Varietal evaluate)
	Use of Integrated Pest Management and promote Red gram intercropping in other crops (IPM)
BANANA	INM, Foliar spray with PDH and 00:00:50 and Bunch feeding technique for increase bunch weight, Proper Fertigation technique, Management of pest and diseases, Banana Marketing etc (ICM)
Mango	INM, ICM, IPM (Rejunation of old orchid)
Potato & PEA	Seed treatment, INM (IPDM)
Poultry, Dairy and goatery	Impart the knowledge regarding Dairy & Goatary farming, introduction of Giriraja and vanraja poultry breeds in backyard and supply of day old chicks. (Poultry management, goat and sheet management)
GENERAL	Improve drainage by use of Mole plough (Reclaimaty of problematic solution)
	Reclamation of Problematic soils. Balance use of Fertilizers on the basis of soil test report. Judicial use of water for Irrigation
	Recycling of Organic Farm Waste & Vermicompost production (Vermicompost production)
	Use of different weedicides & cultural practices for weed control and to overcome labour shortage problem (INM)
	Adoption of recommended crop rotation practices (IFS), crops diversification
	Improve quality and quantity production in greenhouse
	Integrated pest management especially Biological control (IPM)
ENTERPRISE	Promote use of Zero tillage and BBF sowing, Groundnut Decorticator, Groundnut stripper, twin wheel hoe, vaibhav sickle, Laxmi sickle, Okra mitten, and maize sheller like Location specific Drudgery Reduction technology.
	Improve the self employment by imparting skills through vocational training.

3. TECHNICAL ACHIEVEMENTS

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

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
6	6	42	54	12	13	150	161

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	83	1440	3185	120	239	2400	5431

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 2021

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		Mundhe (Karad)	FLD and Training on BBF Method of planting and INM

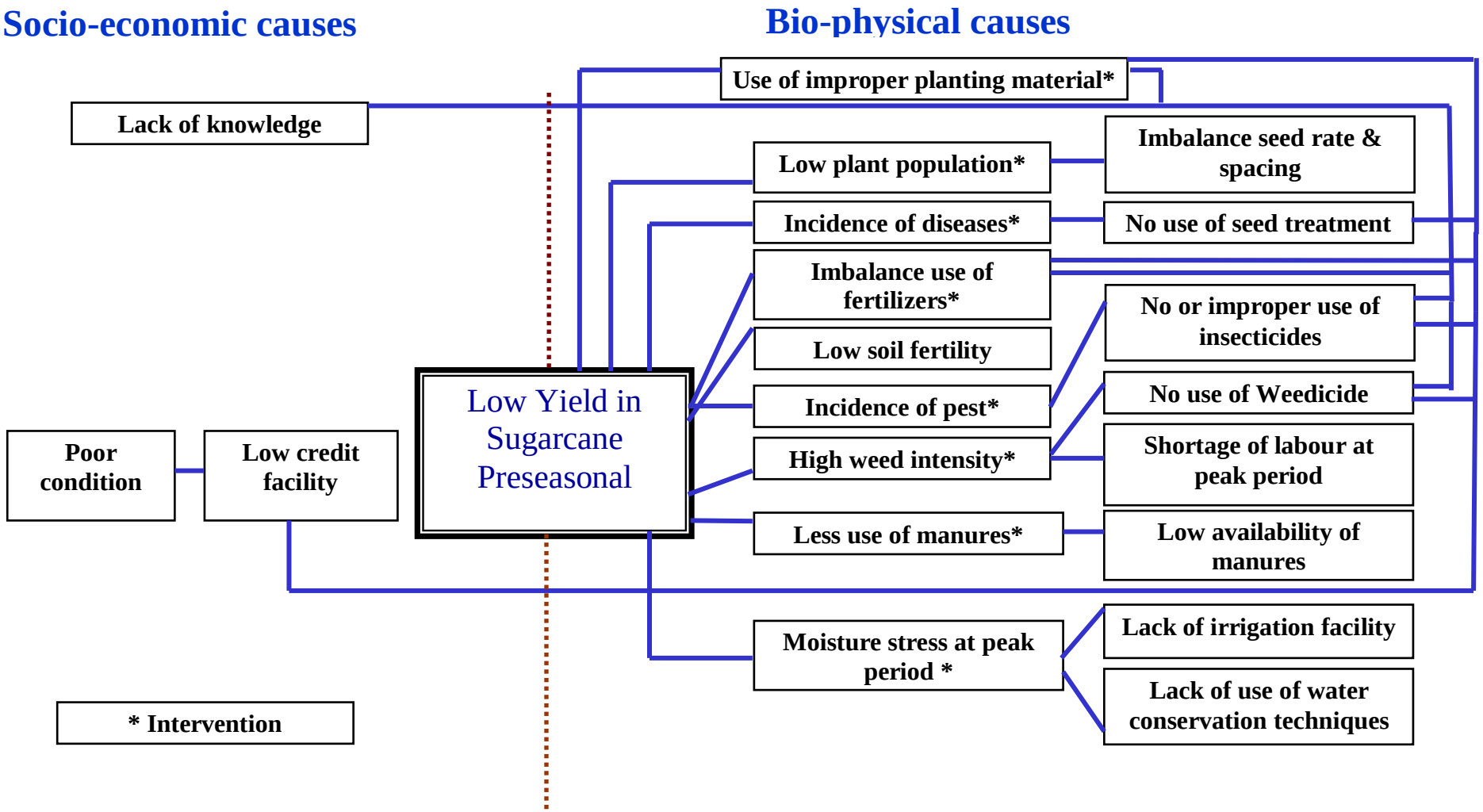
		N fertilizers			
		1. Incidence of Collar rot, stem rot Tikka and Rust diseases in Kharif Groundnut 2. Lack of Knowledge and management practices 3. Lack of seed treatment			OFT Assessment on Seed treatment in groundnut Training on IDM in Kharif Groundnut
5	Soybean	lack of awareness about Varieties, 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		Kimthe (khatav)	OFT assessment on STCR

		knowledge of balanced use of fertilizers			
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

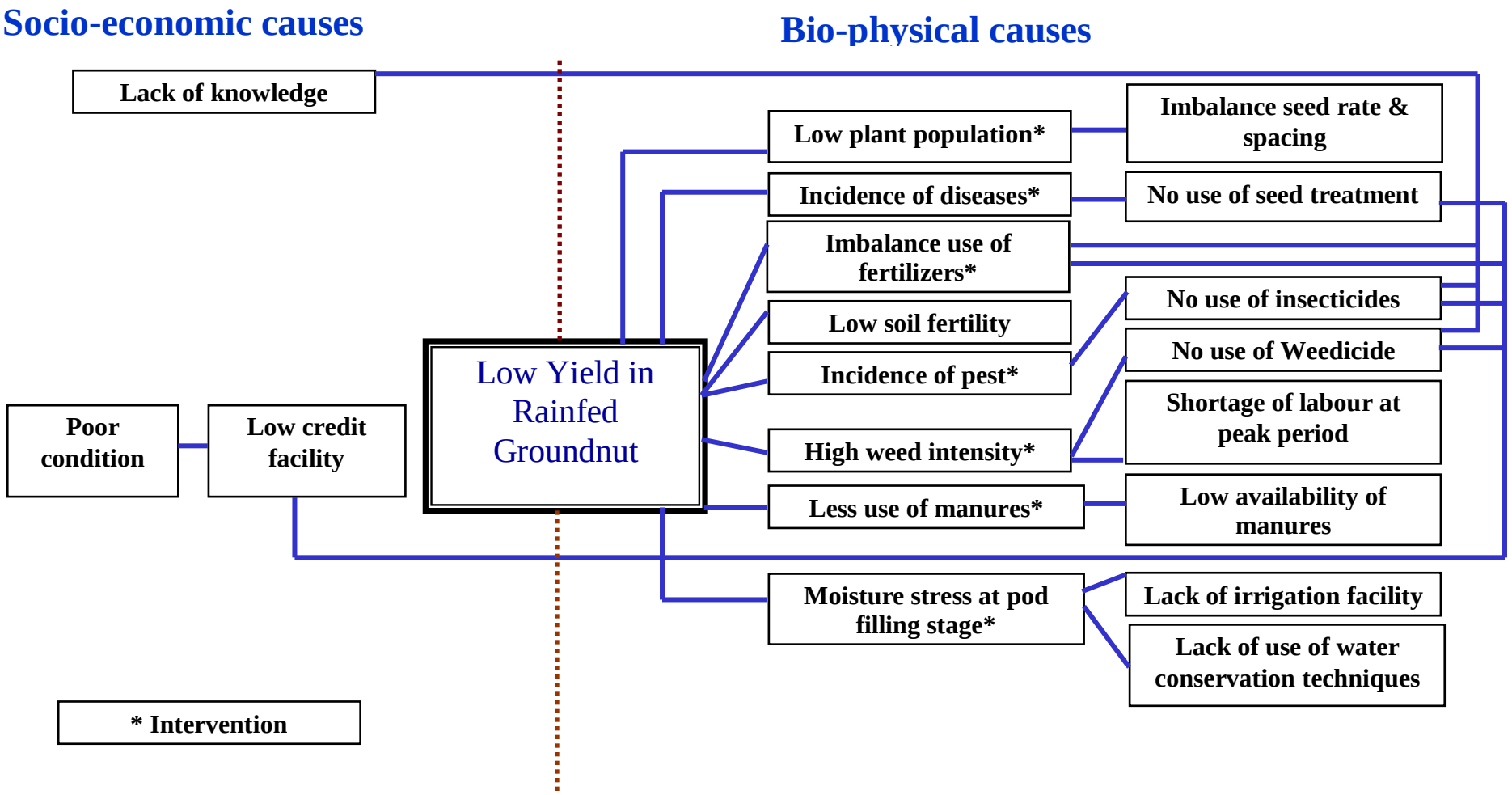
* Support with problem-cause and interventions diagram

3.1. C. Problem cause diagram of major problems.

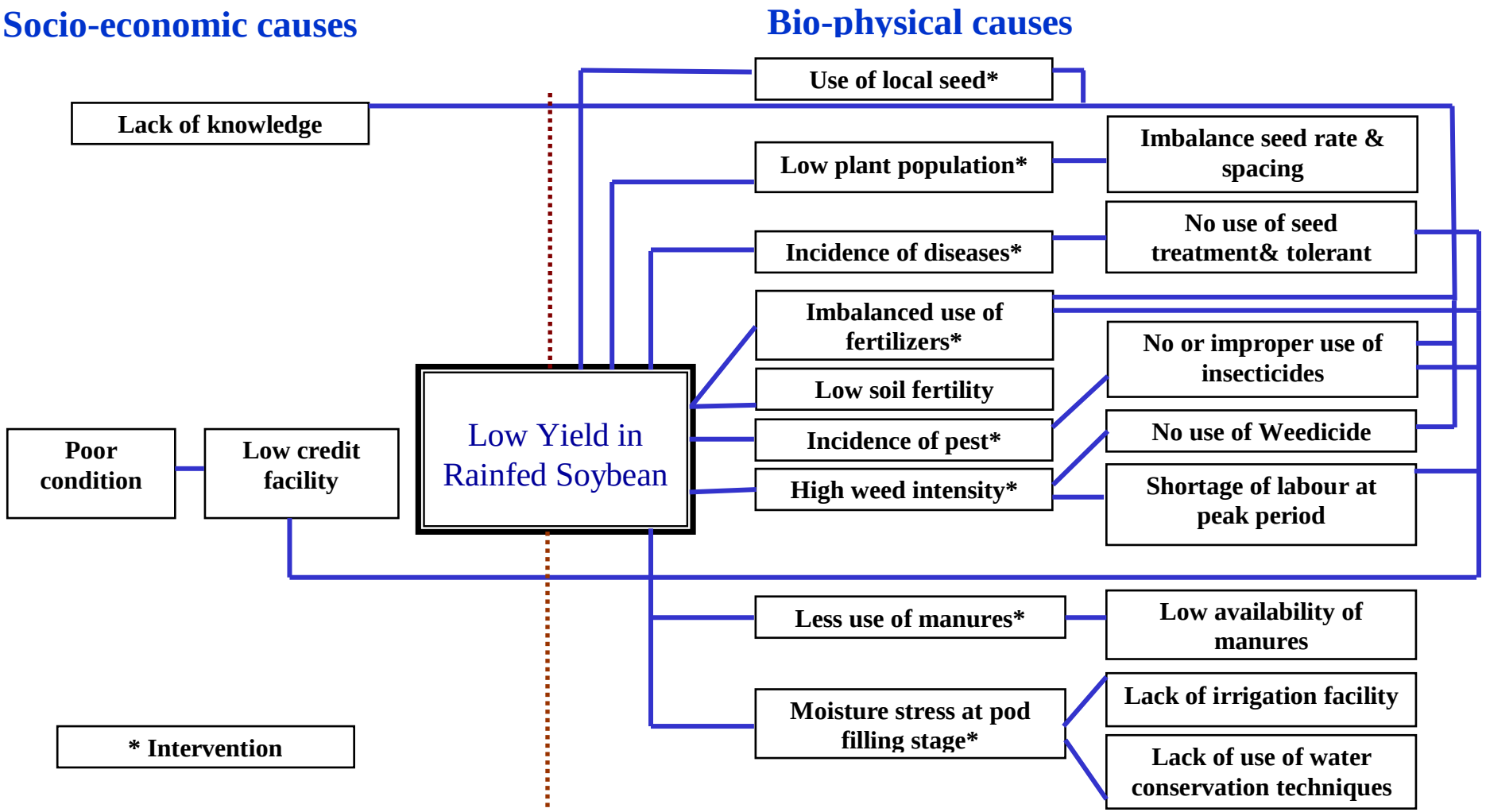
Problem Cause Diagram : Production System *Sugarcane Preseasonal* in Medium Black Clay Soils



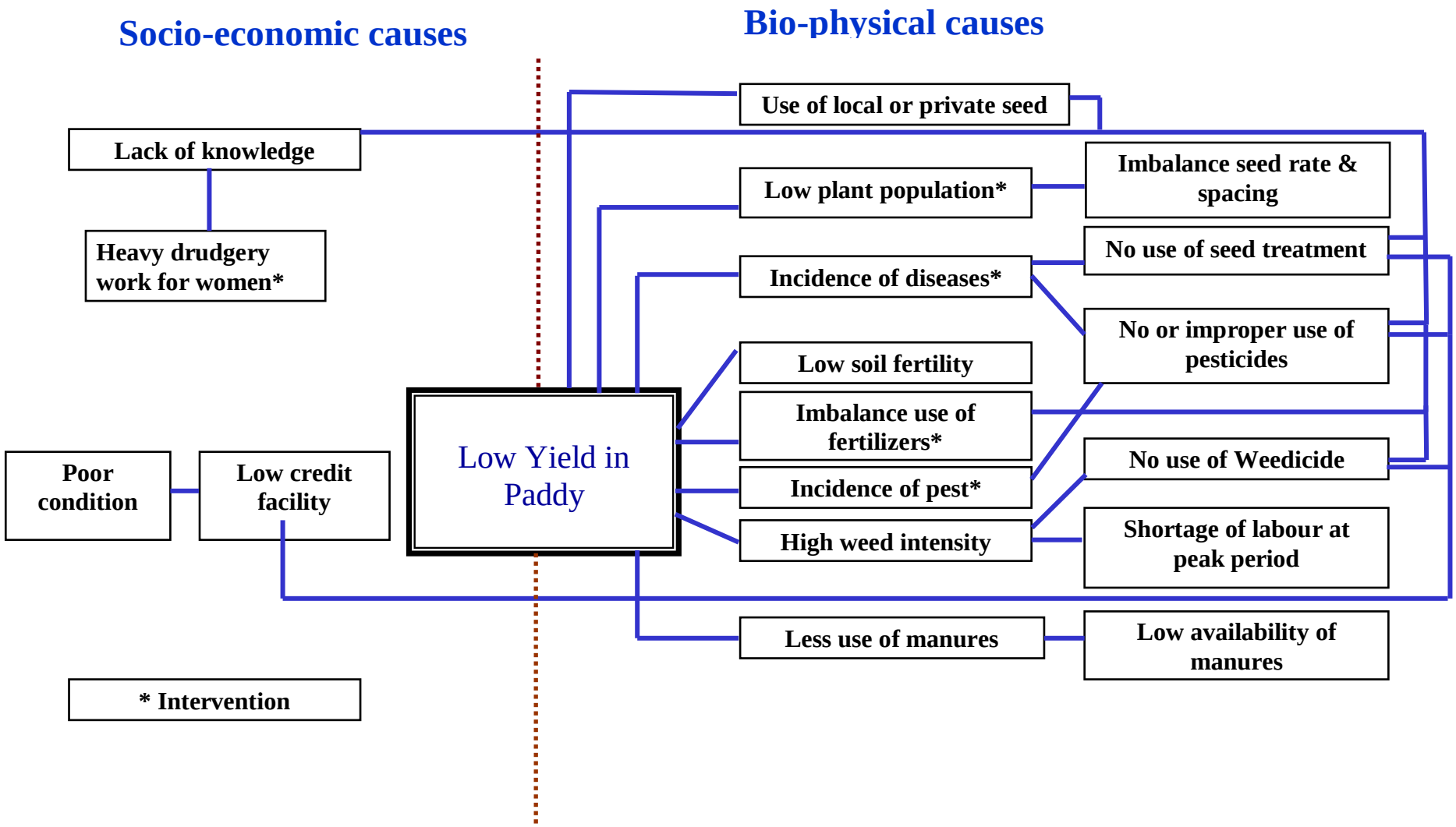
Problem Cause Diagram : Production System *Groundnut* in Medium Black Clay Soils



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 2021, Rabi 2020-21, Summer 2021)

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	01		01	01						**03**
Varietal Evaluation		01	01							**02**
Integrated Pest Management										
Integrated Crop Management										
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries					01					**01**
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total	**01**	**01**	**02**	**01**	**01**					**06**

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

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

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Integrated Nutrient Management	Ginger	Assessment of Ginger Fertigation schedule	12	12	2.5
	Gram	To Assess Spraying of Potassium nitrate on Gram	07	07	2.5
	Wheat	To Assess Performance of Wheat STCR	07	07	2.5
	soybean	To Assess the new variety of soybean phule sangam	10	10	2.5
	Gram	To assess the performance of phule vikram variety of gram in irrigated condition	10	10	2.5
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries	Vegetables	To Assess the performance of seedling transplanter	08	08	2.5
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total					

B.2. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds	0	0	0	0
Nutrition management	0	0	0	0
Disease management	0	0	0	0
Value addition	0	0	0	0
Production and management	0	0	0	0
Feed and fodder	0	0	0	0
Small scale income generating enterprises	0	0	0	0
Total			0	0

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
Soybean	Irrigated	Late onset of monsoon, untimely sowing leads to occurrence of rust. Rust susceptible variety JS-335 shows rust incidence in later stage of growth resulting less yield.	To assess the performance of Phule Sangam variety of soybean (KDS-726).	8	T3-Technology assessed-New variety Phule Sangam (KDS-726)	1) Average no. of pods/ plant	163	Phule Sangam variety has recorded 33.31 % more yield over existing variety JS-335 and 19.01 % more yield on JS-9305 Variety	Crop growth of Phule sangam was excellent and produced more yield having bold size grains.	-	-

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) ; JS-335	JNAU Jabalpur	20.14	q/ha	57294	1.90
Technology option 2: JS-9305	JNAU Jabalpur	22.56	q/ha	68578	2.02
Technology option 3: KDS- 726	MPKV Rahuri	26.85	q/ha	90560	2.28

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 Sangam variety of soybean (KDS-726).

2 Problem Definition

Late onset of monsoon, untimely sowing leads to occurrence of rust. Rust susceptible variety JS-335 shows rust incidence in later stage of growth resulting less yield.

3 Details of technologies selected for assessment :

New Soybean variety Phule Sangam (KDS-726)

4 Source of technology :

MPKV, Rahuri.

5 Production system and thematic area :

Cultivation of soybean under 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	65	97	163
2) Average weight of 100 grains	Number	12.50	13.65	16.55
3) Average grain yield qtl/ha	Qtl/ha	20.14	22.56	26.85
4) B:C ratio		1.90	2.02	2.28

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
63546	70540	6994	120840	161100	40260

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 Sangam variety of Soybean. bold grain size, vigorous growth, resistant to rust. As per yield character, farmers gave first ranking to Phule sangam.

8 Final recommendation for micro level situation.

New variety Phule sangam recorded more yield, and yield attributing characters over existing variety JS-335. Need to be demonstrated on large acreage under FLD.

9 Constraints identified and feedback for research

More dark colour of pods and plant observed at the time of harvesting of crop as compare to JS-335 variety, may be due to more rainfall received at the time of maturity and harvesting of crop. But, grain colour remains as it is. Vigorous growth, yield of Phule sangam is better than JS-335.

10 Process of farmers participation and their Reaction :

Farmers actively participated in training, and implementation of assessment trial. Phule sangam gave more grain yield. bold grain size, resistant to rust than existing variety JS-335 and JS-9305

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.	10	T3-Technology assessed-New variety Phule Vikram	1) Average no. of grains/ ear head		Results Awaited			
						2) Average no. of tillers per plant					
						3) Average grain yield qtl/ha					
						4) B:C ratio					

Results of On Farm Trial - 3

Crop/ enterpr	Farming	Problem definition	Title of OFT	No. of	Technology	Parameters of	Data on the	Results of	Feedback from	Any refineme	Justification for

ise	situation			trials	Assessed	assessment	parameter	assessment	the farmer	nt needed	refinement
1	2	3	4	5	6	7	8	9	10	11	12
Chilli	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) = 615.25 by seedling transplanter & 235.45 without seedling transplanter 2. Labour Requirement (Women/ha) = 7 labours / ha 3. Percent reduction in cost of cultivation = 70.83%	Percent labour and cultivation cost saving of seedling transplanter is 70.83. It requires only 7 labour/ha where as 24 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	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice)		-	Area covered 235.45 sq mt /hr		
Technology option 2	CIAE Bhopal	-	Area covered 615.25 sq mt/hr		
Technology option 3					

C2. 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 which causes back pain and leg pain, repetitive strain & is also time & labour consuming

3 Details of technologies selected for assessment - 1) Farmers practice (by hand) 2) Use of Seedling transplanter for seedling plantation

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 - 1. Area covered by worker (Sq.mt/hr) = 615.25 by seedling transplanter & 235.45 without seedling transplante 2. Labour Requirement (Women/ha) = 7 labours / ha by seedling transplanter and 24 labours are required by farmers practice 3. Percent reduction in cost of cultivation = 70.83%

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques - Seedling transplanter is very good as it saves time, labour and reduces drudgery. If possible only height of the transplanter should be adjustable.

8 Final recommendation for micro level situation - It is highly recommended with minute refinements (ht)

9 Constraints identified and feedback for research and developmental departments - Height of the seedling transplanter should be increased or it should be adjustable

10 Process of farmers participation and their reaction - Farmers participation was good and they are satisfied with the technology.

Results of On Farm Trial 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
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 No of grains per plant Average Yield B:C Ratio	26.97 1318 5.60 q/ha 1.87	Additional cost Rs. 11340 Additional income Rs. 74636	Farmers enthusiasticallly 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	19.12	Qt/ha	15695.21	1.20
T_2 –Use of Fertilizers as per Soil	MPKV Rahuri	34.05	Qt/ha	78991.44	1.87

Test Crop Response and as per target of 45 qtls/ha as					

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.

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 2021 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		
					No. of villages	No. of farmers	Area in ha
1	Gram	INM	Spraying of Potassium nitrate 2 % at 50 % flowering stage & at grain filling stage in Gram	FLD, Training, Input supply, Field visits, Field Days	01	17	5.0
2	Sugarcane	RCT	Demonstration of Zero tillage Sugarcane ratoon management	FLD, Training, Input supply, Field visits, Field Days	01	12	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	Guava	RCT	Pruning in guava	FLD, Training, Input supply, Field visits, Field Days	01	12	5.0
5	Wheat	INM	Use of 19:19:19 NPK as a spoiler spray on Wheat at 55 & 70 DAS	FLD, Training, Input supply, Field visits, Field Days	01	14	5.0
6	Fertilizer carrying bag	Drudgery reduction technology	Use of Fertilizer carrying bag	FLD, Training, Input supply, Field visits, Field Days	01	15	00
7	Twin wheel hoe	Drudgery reduction technology	Use of Twin wheel hoe	FLD, Training, Input supply, Field visits, Field Days	01	14	00
8	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
9	Nagli	INM	Demonstration of use of Urea DAP Briquette in Nagli	FLD, Training, Input supply, Field visits, Field Days	01	13	5.0
10	Fingermillet	INM	Use of 19 :19:19 NPK On Fingermillet	FLD, Training, Input supply, Field visits, Field Days	01	13	5.0
11	wheat	ICM	Demonstration on phule samadhan wheat in irrigated condition	FLD, Training, Input supply, Field visits, Field Days	01	15	5.0
12	Sugarcane	Nutrient use efficiency	Demonstration on Spraying of Multi Micro and Macro nutrient on Sugarcane	FLD, Training, Input supply, Field visits, Field Days	01	13	5.0

B. Details of FLDs implemented during 2021**(Kharif 2021, Rabi 2020-21, Summer 2021)** (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	Gram	INM	Spraying of Potassium nitrate 2 % at 50 % flowering stage & at grain filling stage in Gram	Rabi 2021	5.0	5.0	**0**	17	17	
2	Sugarcane	RCT	Demonstration of Zero tillage Sugarcane ratoon management	Kharif 2021	5.0	5.0	0	12	12	
3	Sugarcane	INM	Use of liquid Acetobactor in Preseasonal Sugarcane crop	Kharif 2021	5.0	5.0	0	13	13	
4	Guava	RCT	Pruning in guava	Kharif 2021	5.0	5.0	0	12	12	
5	Wheat	INM	Use of 19:19:19 NPK as a spoiler spray on Wheat at 55 & 70 DAS	Rabi 2021	5.0	5.0	0	14	14	
6	Fertilizer carrying bag	Drudgery reduction technology	Use of Fertilizer carrying bag	Kharif 2021	00	00	0	15	15	
7	Twin wheel hoe	Drudgery reduction technology	Use of Twin wheel hoe	Kharif 2021	00	00	0	14	14	
8	kitchen garden	Household food security by kitchen gardening & nutrition gardening	Development of Household kitchen garden	Kharif 2021	00	00	0	10	10	
9	Nagli	INM	Demonstration of use of Urea DAP Briquette in Nagli	Kharif 2021	5.0	5.0	0	13	13	
10	Fingermillet	INM	Use of 19 :19:19 NPK On Fingermillet	Kharif 2021	5.0	5.0	0	13	13	
11	wheat	ICM	Demonstration on phule samadhan wheat in irrigated condition	Rabi 2021	5.0	5.0	0	15	15	
12	Sugarcane	Nutrient use efficiency	Demonstration on Spraying of Multi Micro and Macro nutrient on Sugarcane	Kharif 2021	5.0	5.0	0	13	13	

0

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 2021	Rainfed	Light soil	280.61	5.43	430.19	Bengal gram	10 June 2021	25 Oct 2021	1870	69
Suru Sugarcane	Rabi 2021	Irrigated	Heavy	325.32	6.64	476.27	Soybean	15 Dec 2021	Crop is standing	1130	58
Ratoon sugarcane	Rabi 2021	Irrigated	Heavy	316.40	6.87	432.12	Sugarcane	10 Dec 2021	Crop is standing	1150	57
Finger millet	Kharif 2021	Rainfed	Light soil	268.87	5.22	482.19	Gram	15 June 2021	1 Nov 2021	1890	69
Sugarcane	Rabi 2021	Irrigated	Heavy	215.88	5.22	350.42	Groundnut	20 Oct 2021	Crop is standing	1160	57
Wheat	Rabi 2021	Irrigated	Heavy	115.0	3.12	35.55	Ratoon Sugarcane	25 Nov 2021	Crop is standing	1150	58
Bengal gram	Rabi 2021	Irrigated	Heavy	268.0	7.14	428.19	Soybean	20 Nov 2021	Crop is standing	1160	55

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1. 2	**Zero tillage sugarcane ratoon management (Last year)** Demonstration of zero tillage sugarcane ratoon management shows more gross and net income than check plot, Demonstration plot reduces cost of cultivation than check plot. Due to trash mulching, number of irrigation minimized, cost of production reduced because of no intercultivation operations followed, reduced weeding operations.
2.	**Use of Liquid Acetobacter in Suru Sugarcane (Last year)** Spraying of liquid Acetobacter in suru sugarcane resulting more tillering, succulent growth, more length of internode, vigorous growth observed than untreated plot. 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 number of tillers, more number of grains per panicle and yield than untreated plot.
4.	**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.
5.	**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.
6.	**Gram:** 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.
7.	**Spiral grain separator** Use of spiral grain separator for grain cleaning is very effective and beneficial from the point of labour saving, money saving, time saving. Moreover, it is also highly effective in drudgery reduction of farm women while cleaning grains as it needs labour only to put grains in the machine and collect the cleaned grains.
8.	**Twin wheel hoe** Weeding operation becomes very easy by use of twin wheel hoe with time, money and labour saving benefits when compared to traditional hoe or weeding by hands without any

	hoe.
9.	**Sulbha bags** Use of Sulbha bags for fertilizer application increases the speed because both hands can be used for fertilizer application and hazards caused due to contact of fertilizers with skin (Specially thighs) are also completely avoided.
10.	**Development of kitchen garden** Demonstration of kitchen garden to rural households improves the fruit and vegetable intake of rural families and reduces the cost on vegetables. Along with demonstration of kitchen garden a fix package of three to six months of nutrition education should be compulsorily delivered along with kitchen garden which will have more beneficial effects on nutritional knowledge and there by health of rural women.

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	02		39	
2	Farmers Training	08		240	
3	Media coverage	04		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																		
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	INM	Spraying of Potassium nitrate 2 % at 50 % flowering stage & at grain filling stage in Gram	Digvijay	13	5.00	23.00	6.50	12.74	10.42	22.37	15149.00	44597.76	29448.14	2.92	13864.37	36472.44	22608.06	2.62
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	ICM	Demonstration of new high yielding wheat variety Phule Samadhan under irrigated condition	15	5	Results awaited														
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 Late Sown																			
Mandua																			
Barley																			
Maize																			
Amaranth																			
Millets																			
Jowar																			

Bajra																			
Barnyard millet																			
Finger millet	ICM	Spraying of 19:19:19 foliar grade fertilizer 2 % at pre flowering stage	13	5	26.34	22.42	24.38	21.12	15.44	94	78	67845	97520	29675	1.43	64780	84480	19700	1.30
Nagali	INM	Demonstration of use of Urea DAP Briquette in Nagli	13	5.00	22.0	15.0	18.00	15.13	21.30	8.62	714	31804.81	40336.15	8531.35	1.247	29516.10	33857.44	4341.33	1.13
Vegetables																			
Bottlegourd																			
Bittergourd																			
Cowpea																			
Spongegourd																			
Petha																			
Tomato																			

Frenchbean																		
Capsicum																		
Chilli																		
Brinjal																		
Vegetable pea																		
Softgourd																		
Okra																		
Colocasia (Arvi)																		
Broccoli																		
Cucumber																		
Onion																		
Coriender																		
Lettuce																		
Cabbage																		
Cauliflower																		

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

Spices & condiments																			
Ginger																			
Garlic																			
Turmeric																			
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			1092	974	12.11	13	9	166845	322140	155295	1.93	164782	287330	122548	1.74
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			986	905	8.95	12	9	116785	290870	174085	2.49	125462	266975	141513	2.12
Preseasonal Sugarcane	INM	Demonstration on Spraying of Multi Micro and Macro nutrient on Sugarcane	13	5	175.0	150.0	159.0	129.83	22.44	249.33	21.83	84238.59	461100.00	376861	4.01	90833.9	376516.67	285683.41	3.04
Cotton																			

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										
Sorghum																		

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.)			
					Demons Ration	Check		Demons ration	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 parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total
Spiral grain seperator	soyabean	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)12.80 Rs	a) 20.23 b) 3.25 c) 544 Rs	a) 98.58 b) 97.64 c)97.64	-	-	2.66 women/100 kg	2.66 women/ 100 kg	-	531.12 Rs/100 kg	-	531.12 Rs/100 kg
Twin wheel hoe	jowar	Use of Twin wheel hoe for drudgery reduction while weeding	10	1	a) Area covered /d/ women in (ha) b) Labour Requirement (Women/ha) c) Operating cost (Rs/ha)	a)0.03 b)7 c)1288	a)0.015 b)15 c)2600 -	a)50 b)50.45 c)49.53	-	-	8/ha	8/ha	-	1312/ha	-	1312/ha
Sulabha bag	wheat	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)503.8 d)20.83hrs	a)0.03 b)6 c)1189 -	a)137.5 b)130.76 c)136 -	-	-	3.426/ha	3.426/ha	-	685/ha	-	685.2/ha

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	76	27	281.48	% frequency of daily GLV consumption 75	% frequency of daily GLV consumption 25	1685	3014	1329	1.78	238	354	116	1.48

***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	1	31	1	32	0	0	0	31	1	32
Cropping Systems										
Crop Diversification										
Integrated Farming	3	126	9	135	0	0	0	126	9	135
Micro Irrigation/irrigation	1	23	3	26	0	0	0	23	3	26
Seed production										
Nursery management										
Integrated Crop Management	5	180	2	182	10	0	10	192	0	192
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs										
Others (pl. specify)										
Total										
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	1	57	7	64	0	0	0	57	7	64
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	1	34	6	40	0	0	0	34	6	40
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management	1	16	18	34	0	0	0	16	18	34
Poultry Management	1	19	15	34	0	0	0	19	15	34
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology	1	32	12	44	0	0	0	32	12	44
Production of quality animal products	1	32	10	42	0	0	0	32	10	42
Others (pl specify)										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	14	14	0	1	1	0	15	15
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking	3	41	76	117	20	0	20	137	0	137
Gender mainstreaming through SHGs	1	16	9	25	0	2	2	16	11	27
Storage loss minimization techniques										
Value addition										
Women empowerment	2	51	28	79	1	2	3	52	30	82
Location specific drudgery reduction technologies	3	24	12	36	0	0	0	24	12	36
Rural Crafts										
Women and child care										
Others (pl specify)										
Total										
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 CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics	1	8	31	39	0	6	6	8	37	45
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths	1	22	4	26	0	0	0	22	4	26
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL										

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	2	62	0	62	7	0	7	69	0	69
Cropping Systems										
Crop Diversification										
Integrated Farming	1	21	0	21	0	0	0	21	0	21
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management	3	50	9	59	2	0	2	61	0	61
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total										
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	1	47	0	47	0	0	0	47	0	47
Integrated water management										
Integrated Nutrient Management	6	180	9	189	0	0	0	189	0	189
Production and use of organic inputs	1	40	0	40	0	0	0	40	0	40
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency	4	155	22	177	0	0	0	155	22	177
Balance use of fertilizers	2	50	0	50	0	0	0	50	0	50
Soil and Water Testing	1	22	4	26	0	0	0	22	4	26
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	01	57	16	73	1	2	3	58	18	76

Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total										
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	1	33	0	33	0	0	0	33	0	33
Group dynamics	2	68	0	68	1	0	1	69	0	69

Formation and Management of SHGs	1	14	1	15	0	0	0	14	1	15
Mobilization of social capital	5	125	98	223	2	0	2	225	0	225
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL										

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	3	93	0	93	7	0	7	100	0	100
Cropping Systems										
Crop Diversification										
Integrated Farming	4	147	9	156	0	0	0	147	9	156
Micro Irrigation/irrigation	1	23	3	26	0	0	0	23	3	26
Seed production										
Nursery management										
Integrated Crop Management										
Soil & water conservation										
Integrated nutrient management	8	230	11	241	12	0	12	242	12	254
Production of organic inputs										
Others (pl specify)										
Total	**16**	**493**	**23**	**516**	**19**	**0**	**19**	**512**	**24**	**536**
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	1	47	0	47	0	0	0	47	0	47
Integrated water management										
Integrated Nutrient Management	7	237	16	253	0	0	0	237	16	253
Production and use of organic inputs	1	40	0	40	0	0	0	40	0	40
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency	4	155	22	177	0	0	0	155	22	177
Balance use of fertilizers	2	50	0	50	0	0	0	50	0	50
Soil and Water Testing	2	56	10	66	0	0	0	56	10	66
Others (pl specify)										
Total	**17**	**585**	**48**	**633**	**0**	**0**	**0**	**585**	**48**	**633**
IV Livestock Production and Management										
Dairy Management	1	16	18	34	0	0	0	16	18	34
Poultry Management	1	19	15	34	0	0	0	19	15	34
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology	1	32	12	44	0	0	0	32	12	44
Production of quality animal products	1	32	10	42	0	0	0	32	10	42
Others (pl specify)										
Total	**4**	**99**	**55**	**154**	**0**	**0**	**0**	**99**	**55**	**154**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	57	30	87	1	3	4	58	33	91
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking	3	41	76	117	20	0	20	137	0	137
Gender mainstreaming through SHGs	1	16	9	25	0	2	2	16	11	27
Storage loss minimization techniques										
Value addition										
Women empowerment	2	51	28	79	1	2	3	52	30	82
Location specific drudgery reduction technologies	3	24	12	36	0	0	0	24	12	36
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**11**	**132**	**125**	**257**	**21**	**4**	**25**	**382**	**53**	**435**
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 CapacityBuilding and Group Dynamics										
Leadership development	1	33	0	33	0	0	0	33	0	33
Group dynamics	3	76	31	107	1	6	7	77	37	144
Formation and Management of SHGs	1	14	1	15	0	0	0	14	1	15
Mobilization of social capital	5	125	98	223	2	0	2	225	0	225
Entrepreneurial development of farmers/youths	1	22	4	26	0	0	0	22	4	26
WTO and IPR issues										
Others (pl specify)										
Total	**11**	**270**	**134**	**404**	**3**	**6**	**9**	**371**	**42**	**413**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**59**	**1579**	**385**	**1964**	**43**	**10**	**3**	**1949**	**222**	**2171**

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	3	132	12	144	0	0	0	132	12	144
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	2	36	62	98	0	1	1	36	63	99
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products	3	66	12	78	0	1	1	66	13	79
Dairying	2	74	24	98	0	0	0	74	24	98
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	26	18	44	0	0	0	26	18	44
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)										
Use of ICT in Agriculture	1	36	8	44	0	0	0	36	8	44
Soil and water testing	1	18	7	25	0	0	0	18	7	25
TOTAL										

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	3	134	22	156	6	0	6	162	0	162
Seed production										
Production of organic inputs	1	70	0	70	0	0	0	70	0	70
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)										
Soil and water testing	2	74	28	102	0	0	0	74	28	102
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	6	266	34	300	6	0	6	272	34	306
Seed production										
Production of organic inputs	1	70	0	70	0	0	0	70	0	70
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition	2	36	62	98	0	1	1	36	63	99
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products	3	66	12	78	0	1	1	66	13	79
Dairying	2	74	24	98	0	0	0	74	24	98
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production	1	26	18	44	0	0	0	26	18	44
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)										
Use of ICT in Agriculture	1	36	8	44	0	0	0	36	8	44
Soil and water Testing	3	92	35	127	0	0	0	92	35	127
TOTAL	**19**	**666**	**193**	**859**	**6**	**2**	**8**	**672**	**195**	**867**

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	**1**	**31**	**1**	**32**	**0**	**0**	**0**	**31**	**1**	**32**
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	**1**	**6**	**19**	**25**	**0**	**1**	**1**	**6**	**20**	**26**
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL										

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										
Integrated Pest Management										
Integrated Nutrient management	3	85	4	89	0	0	0	85	4	89
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL										

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	31	1	32	0	0	0	31	1	32
Integrated Pest Management										
Integrated Nutrient management	3	85	4	89	0	0	0	85	4	89
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	1	6	19	25	0	1	1	6	20	26
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										

TOTAL	**5**	**122**	**24**	**146**	**0**	**1**	**1**	**122**	**25**	**147**

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										
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										

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										
Composite fish culture										
Sheep and goat rearing	**1**	**26**	**4**	**30**	**0**	**0**	**0**	**26**	**4**	**30**
Piggery										

Poultry farming	**1**	**15**	**4**	**19**	**1**	**0**	**1**	**20**	**0**	**20**
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	70	663	224	887
Field Day	02	34	6	40
Group discussions	09	126	16	142
KisanGhosthi	0	0	0	0
Film Show	0	0	0	0
Self -help groups	0	0	0	0
KisanMela	0	0	0	0
Exhibition	0	0	0	0
Scientists' visit to farmers field	0	0	0	0
Plant/animal health camps	0	0	0	0
Farm Science Club	0	0	0	0
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	0	0	0	0
Method Demonstrations	5	120	23	123
Celebration of important days	11	482	53	535
Special day celebration	00	00	00	00
Exposure visits	02	45	2	47
	99	**1470**	**324**	**1774**
Others (pl.specify)	00	00	00	00
Animal Vaccination Programme	01	16	2	18
Awareness Programme	01	42	0	42
Azadi ka amrit Mahsatv Programme	01	75	7	82
Certificate distribution programme	02	93	17	110
Jal Shakti Abhiyan	06	285	0	285
Lecture Delivered as Resource Person	12	373	143	516
Live Webcasting Programme	2	65	6	71
Mahila Mela	1	78	4	82

News Paper coverage	25	0	0	0
Online Webinar	4	207	4	211
Parthenium awareness week programme	01	48	25	73
Participation in meeting	16	8	687	693
HRD Training	01	0	0	0
Participation in virtual Webinar	03	0	0	0
Participation in workshop	05	88	124	212
Poshan Maha Programme	01	119	13	132
Publication of Literature	05	0	0	0
Radio Talk	17	0	0	0
Rangoli Competition	01	13	0	13
SAC Meeting	01	09	26	35
Social Activity	01	35	5	40
Soil Health Campaign	01	35	4	39
Success story DFI	03	109	0	109
Swachatta Pakhwada Activity	13	274	0	274
Swachhata Activity	09	231	64	295
Tree Plantation programme	01	07	06	13
Workshop	05	182	126	308
Total	**139**	**2392**	**1263**	**3653**

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

Details of other extension programmes:

Particulars	Number
Electronic Media (CD./DVD)	00
Extension Literature	05
Newspaper coverage	25
Popular articles	04
Radio Talks	17
TV Talks	00
Animal health camps (Number of animals treated)	01
Social Media (No. of platforms Used)	07
Others (pl. specify)	
Total	

3.6 Online activities during year 2021

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		**Zoom**	Fisheries Production management	01	26
2		**Zoom**	Use of ICT in Agriculture	01	44
3		**Zoom**	Groundnut	01	44

			Production Technology		
4		**Google meet**	Green and Black gram production Technology	01	37
5		**Zoom**	Online training on Sugarcane production Technology	01	74
6		**Zoom**	Online training on efficient use of water in agriculture.	01	26
7		**Zoom**	Weaning foods	01	26
8		**Zoom**	Formation of FPO & its management	01	27
9		**Google meet**	Training on Household Kitchen gardening	01	15
10		**Google meet**	Online training on processing and value addition of nutri cereals	01	49
11		**Zoom**	Online training on Papad making	01	49
12		**Zoom**	Management of diet for milking animals	01	51
13		**Google meet**	Importance, Health benefits and Recipes of wild vegetables	01	31
14		**Google meet**	Online training on ragi processing and value addition	01	80
15		**Google meet**	Backyard rural poultry management	01	20
16		**Google meet**	Rural Goatery	01	30
17		**Google meet**	Vaccination and disease management in Goats	01	29
18		**Google meet**	Training on soil and water testing	01	40
19		**Zoom**	Training on Vegetables INM	01	30
20		**Zoom**	Online training on animal husbandry and	01	34

			fodder management		
21		**Zoom**	Online training on clean milk production	01	42
22		**Zoom**	Online training on importance of Mineral mixture in the diet of animals	01	44
23		**Zoom**	Online training on rural poultry management	01	34
24		**Google meet**	Online training on changing trends in dairy industry	01	49
25		**Google meet**	Online training on dairy industry- scope, importance	01	49
26		**Google meet**	Online training on poultry management, poultry business in foreign countries	01	44
	Total			**26**	**1024**
B	Farmers scientist's interaction programme				
	Total			**00**	**00**
C	Farmers seminars				
1		**Zoom**	Seminar on discuss the programme of Hon'ble PM	01	0
2		**Zoom**	Seminar on Horticulture Management	01	0
	Total			**02**	**00**
D	Expert lectures				
1		**Zoom**	Importance and health benefits of milk in diet	01	51
	Total			**01**	**51**
E	Any other (Pl. specify)				
1	Webinar	**Zoom**	Online webinar on DAESI Course syllabus	01	105
2		**Zoom**	Online webinar on Registration of farmers on kisan sarthi	00	00
	Total			**01**	**105**

	Grand Total (A+B+C+D+E)			**30**	**1180**

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

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Wheat	MACS 6222	-	65	390000	49
Oilseeds	Soybean	KDS -726	Phule Sangam	182	1456000	109
Pulses	Green Gram		Utkarsha	7	70000	16
	Black Gram		TU -1	10	90000	18
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
Total						

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial	**NIL**	**NIL**		**NIL**		**NIL**
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 Fertilisers	Azolla	150	1800	27500
Bio-pesticide				
Bio-fungicide				
Bio Agents	Decomposting Culture	210	10000	31500
Others				
Total				

Production of livestock materials

Particulars of Live stock	**Name of the breed**	**Number**	**Value (Rs.)**	**No. of Farmers**
Dairy animals	**NIL**	**NIL**		**NIL**
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				

Poultry				
Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl.specify)				
Fisheries				
Indian carp				
Exotic carp				
Others (Pl. specify)				
Total				

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

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

B. Literature developed/published

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

C. Details of Electronic Media Produced

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

D. Details of Social Media Platforms Created / Used

S. No.	Type of social media platform	Title of social media	Number of Followers/ Subscribers
1	YouTube Channel		
2	Facebook page/ Account		
3	Mobile Apps		
4	WhatsApp groups		
5	Twitter Account		
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:**

Mr. Vijay Kale, A/P- Maldan, Taluka- Patan, Dist- Satara Mob.No. 8806717574 is young vermicompost producer farmer taking guidance from KVK, Satara-I. He completed B.Sc (Agriculture) in the year 2012 after completion of his studies he work in vermicomposting. Mr. Vijay Kale is always in contact with KVK, Satara-I and involved in training programme. He completed different types of training at KVK, but his interest was in organic farming, hence he take trainings on organic farming of vermicompost production. The training was sponsored by a ASCI and ICAR in the year of 2018 after completion of this training program he started his own business, and produce 24 tons of vermicompost , vermiculture and vermiwash.

After experiencet he planned extension of his unit for commercial purpose. He also completed agriclinic agribusiness management training. After completion of training he applied for loan to bank for extension of previous vermicompost unit. Bank sanctioned 20 Lakh loan for his new vermicompost production unit, from 6 bed to 28 beds and produced near about 110 tons of vermicompost per year.

He started production of vermicompost, vermiwash, vermiculture, dashpani ark, jaggery and organic consultancy of different farmers. From all this his yearly income is about 4 to 5 lakh per year. He sold his vermicompost to fruit orchard farmers, sugarcane growers and organic growers in satara district and also nearby district, he maintain his product quality by using quality raw material and different process.

Mr. Vijay Kale also started the unit of organic jiggery production for city area as per demand of peoples. For the same he planted 22 R organic sugarcane and yield was achieved upto 22 tons, from this sugarcane he produced organic jaggery and sold @ of Rs.80 to 100 per kg.

From 28 beds of vermicompost he produced 110 tonnes vermicompost per year and produced vermiwash 7000 liters. He developed his own marketing brand “Royal Vermicompost” and sale vermiwash and vermicompost across Maharashtra state. Organic carbon of normal soil is below 0.40 % . So he engaged in production of vermicompost and vermiwash, to increase organic carbon of soil which is very beneficial to management of soil health and increasing crop production.

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

Organic Jaggery production :

For production of organic sugarcane, he used variety 86032 sugarcane and maintain spacing between row to row is 4 feet, initially he used 20 R land for organic production. Also he used sugarcane trash and used 1 ton vermicompost, 1200 liters Jivamrut, 200 liters vermiwash and dashparni extract. He produced total 2200 Kg jagery during jagery production. He used ingredients like desi cow ghee, ginger dry powder and cardamom powder for to make better taste of jaggery. He sold his organic jaggery to market @ Rs. 80 to 100 Per kg.

Work as friend of farmers (Krishi Mitra) : State Department of agriculture, Maharashtra has selected as farmer friend for Dhebewadi division Tal- Patan. He told different agriculture technologies to village farmers like how to conduct germination test, seed treatment, chemical and biological, use of green manuring crops, sugarcane ratoon trash management.

Social and extension activities :Tree plantation in collaboration with forest department, Dhebewadi. Conduct training and consultancy in vermicompost production in different villages of Satara District.

3. **Output**:

For preparation of vermicompost he used plastic beds of 12 X 4 X 2 feet. Use quality raw material like desi cow dung (he use 90% cow dung and 10 % dry leaves). Half decomposition of cow dung by application of decomposting culture and NPK bacteria, fungicides, pesticides for disease and insect free, after 1 month, removal of all heat from cow dung, used for bed filling.

By using layer method of bed filling used 90 % cow dung and 10 % dry leaves. Filling one by one layer of cow dung and dry leaves (total 6 layers) After filling bed, application of water for continue 4 days. After 5 days he use 4 kg vermiculture for one bed, 2 kg jagery, 2 kg gram floor for verm

energy. He gives 6 to 8 inch slop to bed for vermiwash collection. For completion of one batch 3 months required. From one bed of vermicompost ,1 ton of vermicompost is harvested in 3 months by using hand method to advoid damage of verm.

4. **Outcome**: Marketing of vermicompost, vermiculture and vermiwash at Maharashtra. He packed vermicompost bags of 1 Kg, 5 Kg, 10 Kg, 20 Kg and 40 Kg. The rate of vermicompost is Rs.10000/ ton, and from one year 7000 liters of vermiwash was produced and sold @ Rs.30/ liter with his own name Royal Vermicompost.
   Economics :

Sr. No.	Material	Qty	Rate	Total
01	Iorn sheet shed (35 X 77 and 22 X 35)	2	350000	700000.00
02	Vermicompost Bed	28	4000	112000.00
03	Cow dung trolly	110	3500	385000.00
04	Labour charges	12	17000	204000.00
05	Packing bags	110	500	55000.00
	Total Expenditure			**1456000.00**

Income :

Sr.No.	Component	Qty	Rate	Total
01	Vermicompost	110	10000	1100000.00
02	Vermiwash	7000	30	210000.00
03	Jaggery	2200	100	220000.00
	Total Income			1530000.00
	Net @30%			459000.00

Horizontal spread of technology: Mr. Vijay Kale spread vermicompost production technology to different village farmers. He personally visited to farmers field and guide how to established vermicompost unit, its management and use of all biproduct. He established 56 vermicompost unit in different village.

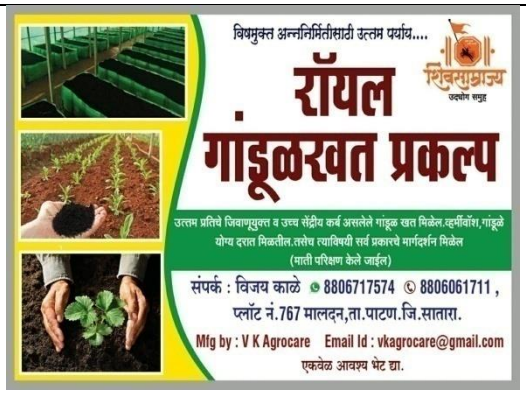
Impact: Line department officers and farmers, farm women visited to Mr. Vijay Kale vermicompost unit. Also he delivered Radio Talk on vermicompost production and organic jagery production at All India Radio Satara and Kolhapur.
Mr. Vijay Kale completed training on different Agriculture Subjects in different institutes is as below.

1. Vermicompost production training at KVK, Kalawade.
2. ASCI skill development training on vermicompost production 20 days at KVK, Satara-I.
3. ASCI skill development training on Soil and Water testing lab analyst at KVK, Satara-I
4. He completed course on Agri clinic and agri business center at KVK, Baramati.
5. Training on organic agriculture at KVK, Baramati.
6. Training on Natural farming at Pune.
7. Training on improved sugarcane production technology at Vasantdada Sugarcane Institute, Pune.

Award and Resignation:

1. Best vermicompost unit in Patan tahsil.
2. Selection of farmer Friend, Dhebewadi division.
3. Role model young farmer Agri entrepreneur award.

	
Vermicompost Production Unit and Beds	Hon'ble Dr. V.P Chahal, ADG,ICAR, New Delhi & Dr. Lakhan Singh, Director ATARI, Pune Visited to Vermicompost unit
	
Cleaning of Vermicompost	KVK Scientist visited to Vermicompost unit
	
Hon'ble Dr. V.P Chahal, ADG,ICAR, New Delhi Guided to Farmers	Products of Vermiwash & Vermicompost

	
Production of Organic Jaggery	Success story published in Sakal Agroone
	
Bagging of Produced Vermicompost	Branding of Vermicompost Products

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.

D. INFORMATION TECHNOLOGY IN AGRICULTURE

1. WEBSITE OF KVK-

Taking into the consideration the importance of Information & Technology the KVK has developed its own website, www.kvkkarad.com in to provide the useful information to the farming community. KVK is getting very good response for weather forecasting links for each tahsil of Satara district which includes rainfall, cloud cover, wind velocity and direction, humidity, sunshine etc.

2. KVK Whats app Group

KVK has established 28 Whats app Group which provide information about KVK activities & agriculture on whats app group KVK has made available facility of providing feedback to the participant.

3. Kissan Mobile Advisory

KVK Send the messages to registered farmers on Crop, Marketing, Awareness through M – Kisan portal and Kisan sarathi Portal

4. USE OF AUDIO VISUAL AIDS:

It is well known to all that "A picture worth thousands of word". So KVK also widely used the audio visual aids for conducting different programme and to transfer the technology. KVK has maintained other CDs related to agriculture. Besides this KVK plays important role as a resource person for "ICT in Agriculture" at RAMETI, Kolhapur, State Agril Dept and ZP for extension functionaries.

E. Soil and Water Testing Lab :

KVK has established 'Soil and Water Testing Lab' and started the soil & water testing. KVK also provided soil & water test reports to the farmers. From December 2015 Micronutrient analysis facility has started in KVK. KVK has developed Soil and Water Testing Software namely "BHOOMI". Through which fertilizer recommendation can be given as per SAU Dose or as per six tire System approach or as per Targeted Yield approach to different crops as per farmers demand. Total 7995 soil samples and 107 water samples were tested and Soil Health cards were distributed in year Jan 2021 to Dec 2021

F. MOBILE SMS SERVICE:

Taking into the consideration the importance of mobile phone as medium for extension KVK has started service through Kisan Portal of providing free SMS to its contact farmers on their mobile phones about Crop advisory, Disease & pests forecasting & management and local weather forecasting. Total Number of messages 09 and farmers beneficiaries 29698

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	Preventing stored grain pests

		5 kg grains.	

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 2017 – 18
2. Nigdai, Tal – Karad, 2017 -18
3. Retahre Kh Tal – Karad 2017 -18
4. Surupkhanwadi , Tal – Man, 2016 -17
5. Kumthe Nagache Tal – Khatav 2017 -18

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

iii. No. of survey/PRA conducted :05
iv. No. of technologies taken to the adopted villages –
Bhariewadii – 4 ,
Nigadi – 07,
Kumathe- 04
Vihe- 12,
Surupkhanwadi – 8
Mundhe - 4

Nalawadewadi – 4 (Not adopted)
Wathar 02 (Not adopted)
Rethre Bk 2 (Not adopted)
Kapil 01 (Not adopted)

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

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

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

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

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

i) PRA
ii) Problem identified from Matrix
iii) Field level observations
iv) Farmer group discussions
v) Others if any

For FLD:

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

5.3. Field activities

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

6. LINKAGES

A. Functional linkage with different organizations

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

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

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

Name of the scheme	Date/ Month of initiation	Funding agency	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	Other remarks (if any)
01	**Meetings**				
02	**Research projects**				
03	**Training programmes**				
04	**Demonstrations**				
05	**Extension Programmes**				
	KisanMela				
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
06	**Publications**				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
07	**Other Activities** (Pl.specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

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
1	Skill training on soil and water testing Lab Analyst	ASCI	308000	308000	

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 during2021:No

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
Gosthies			
Lectures organized			
Exhibition			

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
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 **80 Quintals** of seed of JL-286 Variety to **22 farmers** from **26 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 **26500 Kg U-DAP briquettes to 1420 number of farmers and 81900 Kg NPK briquettes to 475 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 SMS was sent	No. of feedback / query on SMS sent
Jan 2021	01	23842	
Feb 2021	01	23842	

March 2021	00	0	
April 2021	00	0	
May 2021	00	0	
Jun 2021	01	22945	
Jul 2021	00	0	
Aug 2021	01	23367	
Sept 2021	01	20795	
Oct 2021	01	0	
Nov.2021	02	41716	
Dec.2021	01	20858	
Total	**9**	**177365**	

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
	Text only	6	0	0	0	3	0	9
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	Total Messages	**6**	**0**	**0**	**0**	**3**	**0**	**9**
	Total farmers Benefitted	**114791**				**62574**		**177365**

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 2021	0.40	MACS 6222	Seed	12	30000	18000	
Pulses	Mung	Sept 2021	0.40	Utkarsh	Seed	5.00	15000	22500	
	Udid	Sept 2021	0.40	TU -1	Seed	7.00	16000	28000	
Oilseeds	Soybean	Oct - 2021	1.00	KDS 726	Seed	32	38000	192000	
Fibers									
Spices & Plantation crops									
Floriculture									
Fruits	Anola	Nov 2021	4.0	N -7	Fruits	3 Ton	45000	15000	
	Mango	May 2021	4.0	Alphanso, Keshar	Fruits	2 ton	30000	80000	
Vegetables									
Others (specify)									

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-	Azolla	150	1800	27500	

	Fertilizers					
	Bio-Fungicides					
	Bio-pesticides					
	Bio-Agents	Decomposting Culture	210	10000	31500	

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 **2021**	0	0	0
February **2021**	0	0	0
March **2021**	0	0	0
April **2021**	0	0	0
May **2021**	0	0	0
June **2021**	0	0	0
July **2021**	0	0	0
August **2021**	0	0	0
September **2021**	14	04	0
October **2021**	0	0	0
November **2021**	0	0	0
December **2021**	0	0	0

F. Database management

S. No	Database target	Database created

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

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

H. Performance of Nutritional Garden at KVK farm

If Nutritional Garden developed at KVK farm/Village Level? Yes/No

If yes,

Nutritional Garden developed at KVK farm

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
1.15 R	Vegetable crops	15	152
	Fruit crops	6	
	Others if any		

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

No. of Villages covered	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers covered
	Vegetable crops		
	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
	KVK Satara – I	Soil and Water Testing Lab Analyst	200	02	0	14	04	16	04

17. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	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 2021-22 (Rs. in lakh)(Till Dec, 2021)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	87.00	74.16	58.41
2	**Traveling allowances**	2.50	0.750	0.60
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	1.5		
B	POL, repair of vehicles, tractor and Equipments	1.5		
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1		
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	1		
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	1	**7.765**	5.426
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	1		
G	Training of extension functionaries			
H	Maintenance of buildings	2.0		
I	Establishment of Soil, Plant & Water Testing Laboratory	0		
J	Library	0		
TOTAL (A)		**91.5**	**82.675**	**64.436**
B. Non-Recurring Contingencies				
1	**Works**	6		
2	**Equipments including SWTL & Furniture**			
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)		6		
C. REVOLVING FUND		13		
GRAND TOTAL (A+B+C)		110.5		

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 December, 2020	4,925,842.10	672,600.50	3,728,956.49	2065868.48
April 2021 to December, 2021	2065868.48	760000	1495332.46	1330536.02

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. P.P Deshmukh	SMS Home Science	Solar drying of fruits and vegetables	KVK Narayangaon	Online	19/3/2021

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

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

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

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

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	
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

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	17
2	Cleaning of sewerage & water lines	01	17
3	Cleanliness and sanitation drive at residential colonies	01	19
4	waste management, generation of wealth from waste	01	18
5	technology demonstrations on agricultural technologies for conversion of waste to wealth	01	53
6	Campaign on cleaning of sewerage & water lines	01	24
7	Sanitation Campaigns at village level	01	34
8	Cleanliness and sanitation drive in the adopted village	01	13
9	Cleaning of public places	01	16
10	Awareness on waste management	01	22
11	Taking Swachhata pledge, Display of banner	01	11
12	digitization of office records, cleaning of offices	01	12
13	campuses on cleanliness	01	18
14	Involvement of VIP in Swachhata Programme	01	20
15	Cleanliness drive at KVK Campus	01	19
16	Cleanliness drive and decomposition of waste material	01	21
17	Awareness on disposal of degradable and non degradable of bio waste	01	41
18	Press conference on highlighting Swachhata pakhwada activity	01	09
19	Cleanliness drive in kvk campus	01	23
20	Swachhata in school campus	01	45
21	Eradication of weed in kvk campus	01	95
22	Eradication of weed in kvk campus	01	22

21. 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	59	1949	222	2171
Rural youths	19	672	195	867
Extension functionaries	5	122	25	147
Sponsored Training	01	00	110	110
Vocational Training	02	50	0	50
Total	**86**	**2793**	**552**	**3345**

2. Frontline demonstrations

Crops/Enterprise	No. ofFarmers	Area(ha)	Units/Animals
Oilseeds	01	5.00	17
Pulses	00	00.00	00
Cereals	04	20.00	55
Vegetables	00	00.00	00
Other crops	05	25.00	32
Hybrid crops	00	00.00	00
Total	**10**	**50.00**	**104**
Livestock & Fisheries			
Other enterprises	02	00	39
Total	**2**	**0.00**	**39**
Grand Total	**12**	**50.00**	**143**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	05	46	46
Livestock	00	00	00
Various enterprises	01	08	08
Total	**06**	**54**	**54**
Technology Refined			
Crops	0	0	0
Livestock	0	0	0
Various enterprises	0	0	0
Total	0	0	0
Grand Total	**06**	**54**	**54**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	99	1774
Other extension activities	139	3653
Total	**238**	**5427**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awar e-ness	Other enterprise	Total
	Text only	6	0	0	0	3	0	9
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	Total Messages	**6**	**0**	**0**	**0**	**3**	**0**	**9**
	Total farmers Benefitted	**114791**				**62574**		**177365**

6. Seed & Planting Material Production

	Quintal/Number	Value (Rs.)
Seed (q)	264	2006000
Planting material (No.)		
Bio-Products (kg)	360	59000
Livestock Production (No.)		
Fishery production (No.)		

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value (Rs.)
Soil	7995	315960
Water	107	16050
Plant	0	0
Total	**8102**	**332010**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	05
2	Conferences	00
3	Meetings	16
4	Trainings for KVK officials	01
5	Visits of KVK officials	70
6	Book published	00
7	Training Manual	00
8	Book chapters	00
9	Research papers	00
10	Lead papers	00
11	Seminar papers	00
12	Extension folder	00
13	Proceedings	00
14	Award & recognition	00
15	On-going research projects	00