

ANNUAL PROGRESS REPORT 2023



ज्ञानगंगा घरोघरी

KRISHI VIGYAN KENDRA
Yashwantrao Chavan Maharashtra Open University



भारतभूषण
ICAR

Annual Report 2023



KRISHI VIGYAN KENDRA
Yashwantrao Chavan
Maharashtra Open University, Nashik



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

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra, Yashwantrao Chavan Maharashtra Open University, Nashik - 422 222	(0253) 2231714, 2231715, 2230698	(0253) 2231716, 2230698	kvknashik@rediffmail.com	www.kvknashik.org Hits:16029 During 2023 & Cumulative Total:122303

1.2. Name and address of host organization with phone, fax and e-mail (Not of KVK)

Address	Telephone		E mail	Website address
	Office	FAX		
Yashwantrao Chavan Maharashtra Open University, 'Dnyangangotri', Near Gangapur Dam, Nashik- 422 222	+91 253-2230459, +91 253-2230024, +91 253-2230025, +91 253-2230027, +91 253-2230028	0253-2230470	registrar@ycmou.digitaluniversity.ac	https://ycmou.ac.in http://ycmou.digitaluniversity.ac

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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. Niteen J. Thoke	(0253) 2230698	9423479336	niteenjy76@gmail.com

1.4. Year of sanction& type of host organization: 1 October, 1994 (Others- OEI)

1.5. Staff Position (as on December, 2023)

Sl. No.	Sanctioned post	Name of the incumbent	Mobile No.	Discipline	Current Pay Band (7 th Pay)	Current Grade Pay	Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs. /month)
1.	Senior Scientist and Head	Dr. Niteen J. Thoke	9423479336	Agril. Extension	131400- 217100	-	15.11.2022	Permanent
2.	Subject Matter Specialist	Mr. Rajaram B. Patil	9422283360	Agril. Engineering	78800-209200	-	01.03.1996	Permanent
3.	Subject Matter Specialist	Mr. Hemraj M. Rajput	9422773602	Horticulture	78800-209200	-	16.12.1998	Permanent
4.	Subject Matter Specialist	Dr. Prakash K. Kadam	9403774762	Agronomy	78800-209200	-	10.08.2006	Permanent
5.	Subject Matter Specialist	Mrs. Archana C. Mohod	9403774698	Home Science	78800-209200	-	05.06.2007	Permanent
6.	Subject Matter Specialist	Dr. Shyam B. Patil	9403774779	Veterinary Science	78800-209200	-	25.06.2007	Permanent
7.	SMS 6 (Mention subject)	-	-	-	-	-	-	Vacant
8.	Programme Assistant	Mr. Mangesh T. Vyavahare	9403774763	Agril. Chemistry	56100-177500	-	01.06.2007	Permanent
9.	Computer Programmer	Mr. Harshal P. Kale	9403696802	Computer	44900-142400	-	18.07.2014	Permanent
10.	Farm Manager	Mr. Sandip C. Bhagwat	9422707292	Horticulture	67700-208700	-	26.03.2003	Permanent
11.	Accountant/Superintendent	Nikhil M. Shinde	7020747829	Mechanical	35400-112400	-	17.11.2022	Permanent
12.	Stenographer	Mrs. Vanita S. Rodge	9403774656	-	38600-122800	-	01.07.1995	Permanent
13.	Driver 1	Mr. Satish L. Sakhare	9403774657	-	44900-142400	-	01.10.1998	Permanent
14.	Driver 2	Mr. Dattu B. Madhe	9403774658	-	21700-69100	-	11.08.1999	Permanent
15.	Supporting staff 1	Mr. Rakesh B. Nikam	9403774659	-	19900-63200	-	01.07.1995	Permanent
16.	Supporting staff 2	Mr. Vinod N. Bhadke	9403774660	-	19900-63200	-	01.07.1995	Permanent

1.6. Total land with KVK (in ha):

S. No.	Item	Area (ha)
1.	Under Buildings	00.80
2.	Under Demonstration Units	03.20
3.	Under Crops	0.60
4.	Horticulture	20.00
5.	Pond	0.40
6.	Others if any	-

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	July 1998	694	2650758	-	-	--
2	Farmers Hostel	ICAR		305	1600575	-	-	-
3	Staff Quarters	-	-	-	-	-	-	-
4	Fencing	ICAR	-	-	-	-	-	-
5	Rain Water harvesting system	YCMOU	2001 2005	02Ha	1500000	-	-	-
6	Threshing floor	YCMOU	1998	200	35000	-	-	-
7	Farm godown	YCMOU	2003	93	160000	-	-	-
8	Soil and water testing lab	ICAR & YCMOU	1998	45				
9	Mini soil testing Kit	ICAR	2016	-	1,18,095			
1	Sell Contour	-	-	-	-	-	-	-
1	Demo unit	ICAR	June 1996	800	100000	-	-	-
1	ICT lab	-	-	-	-			
1	Solar Panel		June 2015	100				
1	counter seal							
1	Other pl mention							

B. Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Ferguson Tractor No. 3455	2009	600000	4689.8	Due for replacement
Mahindra Jeep : Bolero	2021	795290	48602	Good condition

C. Equipments & AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Refrigerator (2)	1997,2005	27,000	Good
Student Microscope (1) YCMOU	1996	10,000	Good
Simple Microscopes (4) YCMOU	1997	2,000	Good
Autoclave (1) YCMOU	1998	15,000	Good
Mixture (1)	1996	1,200	Good
Public address system (1)	1996	17,000	Good
Hand refracto meter (1)	1997	1,000	Good
Water cooler (5) YCMOU	1998	88,019	Good
Fax Machine (1)	1998	18,900	Good
Gas cylinder (4)	1996	3,000	Good
Laminar flow cabinet (1) YCMOU	2000	72,005	Good
Micro PH meter (digital) (1)	2005	13,650	Good
Conductivity Meter (Digital) (1)	2005	15,942	Good
Centrifuge Machine (1) YCMOU	2000	15,000	Good
Stereozoom Trinocular Microscope	2009	1,30,185	Good
Trinocular Microscope	2009	1,50,643	Good
Sanco biological Fermentor with cooling coil & sanco chiller with compressor	2009	5,20,000	Good
Autoclave vertical (Double Jacket)	2009	1,30,555	Good
Digital colony counter (YCMOU)	2018	5,000	Good
Hot plate (2) YCMOU	2000	25,000	Good
Mechanical Flask Shaker (2) ICAR	2000,2005		Good
Top pan balance (Digital) (3) YCMOU	2000,2005,2006	1,25,000	Good
Ribbon Blender	2013	58500	Good
Homogenizer	2013	39375	Good
Air conditioner	2013	28300	Good
Sealing machine	2013	23500	Good
Batch coder	2013	3150	Good
BOD incubator	2013	61875	Good
Chemical balance	2013	20812	Good
Pusa Soil Kit -2 Nos	2016, 2017	1,18,095	Good
Mrida Parikshak Soil testing kit	2017	90,300	Good
Preeti Mixer (YCMOU)	2018	7,000	Good
Glass Double Distillation unit (YCMOU)	2018	48,000	Good
Atomic Absorption Spectrophotometer	2020	17,50,000	Good
Laminar Air Flow (YCMOU)	2021	1,24,915	Good
Rotary Shaking Machine (YCMOU)	2021	1,41,600	Good
Spectrophotometer (YCMOU)	2021	61266	Good
VC Cooler (Fridge) (YCMOU)	2021	40880	Good

1.8. Details of SAC meeting conducted in the year:

Date	Name and Designation of Participants	Salient Recommendations	Action taken
21 th June, 2023	<ol style="list-style-type: none"> 1. Hon'ble Prof. Dr. Sanjeev Sonawane, Vice Chancellor, YCMOU, Nashik and Chairman, KVK (Online) 2. Dr. Tushar Athare, Scientist, ATARI, Zone VIII, Pune (Online) 3. Dr. Sachin Hire, Officer In-charge, Pomegranate Research and Technology Transfer Center, Lakhmapur, Tal Satana, Dist. Nashik (Representative of DEE, MPKV, Rahuri) 4. Dr. Rajeev Kale, Senior Scientist, ICAR-Directorate of Onion and Garlic Research Center, Pune (Online) 5. Shri. J. N. Gaikwad, Technical Officer, District Superintendent Agriculture Officer, Nashik 6. Shri. Rajendra Nikam, Director, Agriculture Technology Management Agency, Nashik 7. Shri. Kailas Shirsath, Agriculture Development Officer, Zilla Parishad, Nashik 8. Dr. Mangesh Badgujar, Officer In-charge, MPKV-Onion & Grape Research Station, Pimpalgaon(B) 9. Shri. R. R. Patil, Manager, Bank of Maharashtra, Nashik 10. Shri. Nanasheh Patil, Program Officer, All India Radio, Nashik 11. Dr. Hemant Patil, Associate Director of Research, Zonal Agricultural Research Station, Igatpuri, Nashik 12. Shri. Amit Patil, Senior Scientist & Head, KVK, Malegaon, Nashik 13. Shri . Gokul Wagh, Sub-Divisional Agriculture Office, Nashik. 14. Shri. S. S. Kadu, Dy. Director, National Horticulture Board, Nashik. 15. Shri. Dattu Dhage, Belgaon Dhaga, Tal. & Dist. Nashik, farmer representative. 16. Shri. Yashwant Gavande, Gavandpada, Tal. Peth, Dist. Nashik, farmer representative. 17. Shri. Sandip Jadhav, Jopul, Tal. Chandwad, Dist. Nashik, farmer representative. 18. Mrs. Chetana Pawar, Siddharth Mushroom, Nashik, farmer representative. 19. Dr. Niteen Thoke, Sr. Scientist & Head, KVK, Nashik, Member Secretary 	<p>Hon'ble Prof. Dr. Sanjeev Sonawane, Vice Chancellor</p> <p>Present the last year major achievements of KVK</p> <p>Analyze the results of FLDs and OFTs scientifically and present in the progress report</p> <p>Take feedback of the farmers on technology demonstrated</p> <p>Record and present the observations about the 'Save Grain Bags' demonstrations</p> <p>KVK should approach for external funding for promotion of mushroom cultivation</p> <p>Train the farmers about multiplication of Bio-agents on their own farm, so that they can multiply it by their own can use in their field. This will reduce the cost of cultivation and help in promotion of organic farming</p> <p>Paddy is cultivated on patchy and undulating lands in Nashik district. So, train and promote mechanization in paddy cultivation</p> <p>Organize workshop on Finger millet and invite different stakeholders including finger millet cultivators to discuss advance cultivation methods, improved cultivars, INM, IPM and value addition, etc. aspects</p> <p>Take care that while introduction of improved cultivars of the crop, the specialized local cultivars of tribal area will be conserved</p> <p>Efforts should be done for promotion of Avocado and Dates crops</p> <p>Plan for on campus research and development center for desi dog breeds</p> <p>Take the support of AVC center of YCMOU for preparation of video clips of KVK activities</p> <p>Conduct trainings on marketing strategies of agricultural produce</p> <p>Dr. Tushar Athare, Scientist, ATARI, Zone VIII, Pune</p> <p>Prepare success stories of ARYA entrepreneurs</p> <p>Share the technical information, feedback with Line departments for its replication</p> <p>Promote custom hiring especially through TSP-implement bank</p> <p>Conduct awareness and training programmes on millet importance, cultivation and processing techniques</p>	<p>Hon'ble Prof. Dr. Sanjeev Sonawane, Vice Chancellor</p> <p>Prepared and will be presented</p> <p>Detailed data collection and analysis of FLD and OFT has been done and submitted to the council</p> <p>Technology-wise technical feedback and reaction has been recorded</p> <p>Observations of 'Save Grain Bag' have been recorded</p> <p>Mushroom activity has been included in ARYA project. Moreover grants were received by ATMA for training</p> <p>KVK has developed the technique of multiplication (technical folder published) and large scale demonstrations has been conducted</p> <p>Supplied Paddy reaper (4) to RY, Rice mills (5) to women with necessary skill trainings</p> <p>Implemented frontline demonstrations, trainings, recipe contests and awareness camps</p> <p>Motivated farmers for conservation of specialized local cultivars</p> <p>Planned for notified avocado varieties and date crop cultivation on Ghorwad land</p> <p>Outline of Research Work for research on indigenous dog breeds from Maharashtra for conservation and promotion planned</p> <p>4 short video clips has been prepared, planned for next year</p> <p>Training and lectures conducted also trainings on PHT conducted</p> <p>Prepared the success story of three ARYA enterprises viz. Mushroom cultivation, Nursery and Goat farming</p> <p>Sharing information through EF trainings at RAMETI, ATMA AMC meetings, Dept. of Agril. Meetings, etc</p> <p>Supplied Paddy reaper (3), Spiral separators (7) and Groundnut decorticators (11) under TSP-implement bank through custom hiring.</p> <p>Conducted 25 trainings, 12 awareness programmes, 2 demonstrations and 3 recipe contests on millet</p>

		Increase the use of conventional and social media	Disseminating technology through Radio Talks, Newspaper and social media
		Conduct demonstration on Kitchen garden/ Nutritional garden especially for tribal women	Demonstration of Kitchen garden were given to 50 tribal women farmers. Vegetable kits were given as critical input.
		Dr. Hemant Patil, Associate Director of Research, MPKV-ZARS, Igatpuri	
		Include Phule Durva and Phule Kimaya cultivars along with Phule Sangam while implementing the demonstrations of Soybean	Demonstrations on Phule Sangam cultivar of Soybean were conducted covering 10 ha area and 25 farmers.
		Shri. Rajendra Nikam, Director, ATMA	
		Awareness programmes should be organized to promote the SRT technology in paddy cultivation	Participated in awareness programmes jointly organized with ATMA and Dept. of Agriculture. Recommendations from MPKV awaited.
		Dr. Mangesh Badgajar, Officer In-charge, MPKV-OGRS, Pimpalgaon (B)	
		Demonstrations on Phule Basawant cultivar of Garlic should be conducted. The seed will be made available by MPKV's Grape and Onion Research Station, Pimpalgaon (B)	Demonstrations on Yamuna Safed cultivar of Garlic were conducted covering 0.4 ha area and 50 farmers.
		Dr. Rajeev Kale, Senior Scientist, DOGR, Rajgurunagar	
		Include Bheema Purple cultivar of Garlic and Bheema Shakti cultivar of onion in demonstrations. The seed will be made available by NRCOG, Rajgurunagar	Demonstrations on ALR & NHRDF Red-4 cultivar of Onion were conducted covering 8 ha area and 40 farmers. Next year planned for Bheema Shakti.
		Shri. Gokul Wagh, SDAO, Nashik	
		Provide information of availability of fruit grafts when required by Dept. of Agriculture	Dept. of Agriculture was provided with the information on number of grafts and was also updated on portal.
		Shri. Yashwant Gavande, Farmer Representative	
		He explained about the advantages of SRT technology in Paddy cultivation and suggested to promote the technology	Participated in awareness programmes jointly organized with ATMA and Dept. of Agriculture. Recommendations from MPKV awaited.
		Mrs. Chetana Pawar, Farmer Representative	
		Offer fruit grafts instead of bouquet while felicitating the SAC members	Not only in SAC meeting but also in all meetings/ events/ programmes of the universities, the mango grafts were offered to the delegates.
		Shri. Dattu Dhage, Farmer Representative	
		He explained about the usefulness of B.Sc. (Agri) and B.Sc. (Hort) degree of YCMOU and suggested to start the degree	The University is taking follow-up for recognition.
		A large number of entrepreneurs in the field of Nursery has been created by KVK through training programmes. So, KVK should conduct the long duration training programmes in Nursery Management	Conducted 3 training programmes on Nursery Management. Also, the programme is included under ARYA project to support RY with critical inputs.

2. DETAILS OF DISTRICT / JURISDICTION AREA OF KVK

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

S. No	Farming system/enterprise	Names of talukas covered
1	Agriculture + Horticulture	Nashik, Niphad, Dindori, Tryambakeshwar, Peth, Igatpuri, Sinnar, Chandwad
2	Horticulture + High tech Floriculture	Nashik, Niphad, Dindori
3	Agriculture + Horticulture + Dairy	Nashik, Niphad, Dindori, Sinnar, Chandwad
4	Agriculture + Poultry	Tryambakeshwar, Peth, Igatpuri, Chandwad
5	Agriculture + Dairy	Niphad, Dindori

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

a. Soil type

S. No.	Agro-climatic Zone (Planning Commission)	Characteristics
	Ghat Zone	Annual rainfall 3000 to 5000 mm., Laterite and non laterite soils with forest cover, Undulating topography
1	Transitional Zone I	Annual rainfall 1250 to 3000 mm., Reddish brown soils of hilly slopes
2	Transitional Zone II	Annual rainfall 700 to 1240 mm., medium black soils, plain zone.
3	Scarcity Zone	Annual rainfall 500 to 700 mm., coarse shallow soils, calcareous soils.
4	Ghat Zone	Annual rainfall 3000 to 5000 mm., Lateritic and non lateritic soils with forest cover, Undulating topography

b. Topography

S. No.	Agro ecological situation	Characteristics
1	High rainfall, sloppy land, light soils	Hilly tract, Forest cover, lateritic soils
2	High rainfall, Medium soils	Undulating land, paddy, Niger, finger millet are main crops
3	Assured rainfall, Medium soils	Plain zone, Wheat, Soybean is the main crops.
4	Assured irrigation, Medium to heavy soils	Black soils, Grape and vegetable belt
5	Low rainfall, Scarcity area, Light to medium soils	Black soils, Pomegranate, maize are main crops
6	Low rainfall, un-assured rainfall, medium to heavy soils	Deep black soils, Bajra, cotton are main crops

2.3. Soil Types

S. No	Soil type	Characteristics	Area (ha)
1	Laterite & non laterite soils	Well drain, deficient in lime, P ^H 5-6, Low in nutrient, high leaching	70400
2	Reddish brown soils	Porous soils, absence in N, P, K, lime and organic matter, P ^H 7-7.5, low fertility status, high leaching	496645
3	Medium black soils	Heavy clay texture, P ^H 7.5-8.5, deficient in N and P, rich in K, poor aeration.	321760
4	Coarse shallow soils	Light texture, low clay content, P ^H 6-7.5, deficient in N,P,K.	647255

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

S. No	Crop	Area ('00' ha)	Production ('00' MT)	Productivity (Kg/ha)
1	Kharif Rice	924.03	1979	2141
2	Kharif Jowar	20	29	1486
3	Bajra	880	1383	1571
4	Ragi	176	127	720
5	Kharif Maize	2378	10860	4566
6	Other Kharif Cereals	115.22	40	350
7	Total Kharif Cereals	4494	14418	3208
8	Tur	69.47	64	922
9	Mung	182.70	129	705
10	Udid	89.36	51	574
11	Other Kharif Pulses	32.23	20	615
12	Total Kharif Pulses	374	264	706
13	Total Kharif Food grains	4867	14682	3016
14	Kharif Ground Nut	273	314	1151
15	Kharif Sesamum	1.64	0.36	220
16	Nilgerseed	27.53	4	148
17	Kharif Sunflower	0.26	0.07	270
18	Soyabean	862	1611	1869
19	Other Kharif Oilseed	0.5	0.3	550
20	Total Kharif Oilseeds	1164.84	1930	1657
21	Sugarcane	143.66	10775	75
22	Cotton (Lint)	414	1114	457
23	Rabbi Jowar	32.31	22	681
24	Wheat	634.42	1135.62	1790
25	Rabbi Maize	66.24	293.44	4430
26	Other Rabi Cereals	8.93	3.86	432.06
27	Total Rabi Cereals	741.90	1454.91	1961.07
28	Gram	344.91	272.48	790
29	Other Rabi Pulses	34.50	23.35	677
30	Total Rabi Pulses	379.40	295.83	779.73
31	Total Rabi Foodgrain	1121.3	1750.7	1561.35
32	Other Rabi Oilseeds	0.04	0.01	187.35
33	Total Rabi Oilseeds	0.04	0.01	187.35

*Second Advance Estimate 2021-22 as per final CCE update

Source: State Department of Agriculture

2.5. Weather data (2023)

Week wise meteorological data of A.R.S.Niphad									
MW No.	Tmax (OC)	Tmin (OC)	RHI (%)	RH II (%)	WS (kmph)	Rain(mm)	Rain Day	Evap(mm)	BSS (hr)
1	27.8	10.6	85	52	2.6	0.0	0	0.4	4.8
2	29.1	6.7	91	47	2.0	0.0	0	0.9	9.0
3	30.3	7.9	92	40	1.8	0.0	0	0.9	8.1
4	29.0	10.0	92	48	2.3	0.0	0	0.5	7.3
5	28.9	10.5	92	50	2.4	0.0	0	0.4	7.3
6	32.9	8.4	89	41	0.9	0.0	0	1.4	9.9
7	33.5	6.5	85	40	2.2	0.0	0	1.9	9.8
8	34.9	8.0	87	33	0.7	0.0	0	2.2	9.9
9	34.7	10.8	91	35	0.9	0.0	0	1.6	8.2
10	32.2	12.8	87	41	2.7	7.0	2	0.5	5.8
11	33.5	13.9	89	45	2.9	7.5	1	0.3	5.7
12	33.3	13.4	92	46	5.1	1.0	0	0.9	8.1
13	33.6	12.1	91	37	4.8	0.0	0	1.8	9.3
14	35.4	14.6	90	46	4.0	0.0	0	2.4	8.2
15	38.0	17.7	92	47	3.8	10.3	1	0.6	8.3
16	39.0	16.8	89	40	5.1	3.2	1	2.1	9.6
17	38.0	20.1	90	45	5.1	3.8	0	2.7	9.1
18	35.8	20.2	92	50	7.4	1.2	0	0.7	8.2
19	39.7	23.7	87	43	6.5	0.0	0	3.1	10.4
20	40.3	24.3	87	42	11.2	0.0	0	4.2	11.1
21	38.5	24.4	88	43	11.9	0.0	0	3.4	10.9
22	39.6	24.3	93	44	9.9	0.0	0	3.0	11.0
23	37.1	25.9	94	53	10.7	14.2	1	1.6	9.8
24	36.4	25.5	93	50	12.9	0.0	0	1.3	9.7
25	34.7	24.7	96	58	13.2	0.0	0	0.7	8.8
26	29.6	23.1	96	86	9.5	64.3	5	0.0	0.7
27	31.3	24.0	98	67	8.1	37.3	3	0.0	3.8
28	28.6	24.7	95	74	9.7	9.3	2	0.0	2.9
29	28.6	23.4	94	67	10.4	11.3	2	0.0	1.8
30	28.0	23.0	96	78	10.5	16.2	3	0.0	1.7
31	28.1	23.0	95	67	13.6	6.3	0	0.0	3.5
32	29.0	22.6	94	71	12.3	4.0	0	0.0	3.7
33	29.6	22.0	94	67	10.5	1.6	0	0.0	5.0
34	29.0	21.4	94	74	9.0	5.2	1	0.0	3.9
35	31.5	20.6	92	59	6.3	4.0	1	0.1	8.2
36	30.6	21.0	96	75	10.5	39.8	4	0.4	4.7
37	28.7	21.5	93	70	10.9	1.3	0	0.2	5.6
38	28.9	20.9	97	80	5.7	130.3	4	0.0	1.4
39	30.4	21.5	96	77	2.8	42.6	4	0.0	3.4
40	33.1	20.9	89	55	5.5	0.0	0	1.4	7.8
41	34.9	18.7	90	55	2.2	0.0	0	2.2	8.1
42	34.3	19.2	94	55	2.4	9.2	1	1.2	7.3
43	32.8	15.3	92	60	1.5	0.0	0	2.1	9.0
44	32.4	13.8	91	57	1.9	0.0	0	2.7	9.1
45	32.1	15.1	92	52	2.3	0.0	0	2.0	8.4
46	31.7	13.3	91	52	1.4	0.0	0	1.7	8.6
47	30.8	14.4	88	55	2.4	0.0	0	0.9	7.7
48	28.4	17.9	96	62	3.6	99.6	1	0.1	4.8
49	29.5	17.0	93	47	3.2	0.0	0	1.2	7.7
50	29.0	12.6	94	47	1.9	0.0	0	0.9	8.3
51	27.5	11.9	89	50	3.9	0.0	0	0.3	6.3
52	30.2	10.9	94	45	1.6	0.0	0	0.9	8.3

Source: Dept. of Meteorology, Collage of Agriculture, Pune (MPKV, Rahuri)

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

Category	Population (No.)	Production (Per unit)	Productivity (Per unit)
Cattle			
<i>Crossbred</i>	136589	Milk 347824 MT	11 lit /cow /day
<i>Indigenous</i>	758461		04-05 lit /cow /day
Buffalo	221234		06 - 10 lit /buffalo /day
Sheep	243373	Milk included already	
Goats	626644	Milk included already	0.3 - 1 lit /goat/day
Pigs	7616		
<i>Crossbred</i>	1399	Meat 45.9405 MT	12-18 kg /pigs
<i>Indigenous</i>	6217		
Rabbits	1425	Meat 780 kg	0.5-1 Kg /rabbit
Poultry			
Hens (<i>Crossbred</i>)	1954164	Egg 2191 lakh Meat 420704.79 MT	110 Eggs/year
<i>Desi</i>	1259418		60 Eggs/year
Fish (Reservoir)	-	-	

Ref.-20th Animal census (Dept. of Animal Husbandry, Govt. of Maharashtra)

2.7. Details of Operational area / Villages

Taluka / Block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Niphad	Khadak Malegaon, Ugaon, Kotamgaon	Grape, Onion, Tomato, Soybean, Maize, G'nut, Bengal gram, Poultry	<ol style="list-style-type: none"> 1. Use of traditional varieties 2. Poor storage life of Onion 3. Non judicious use of pesticides 4. Lack of mechanization 5. Grafting failure on grape root stock 6. Lack of alternate crop 7. Improper use of fertilizers 	<ol style="list-style-type: none"> 1. Training on nursery management and grafting in grapes 2. Use of Improved varieties in agronomical crops 3. Improved cultivation practices to prolong storage life in Onion 4. Improved cultivation practices in quality fruit production in Grapes 5. Integrated pest management. 6. Improved farm machineries 7. Economical protective cultivation techniques 8. Formation of groups for effective transfer of technologies (TTC's) 9. Soil test based fertilizer application
Trimbak	Chirapali,,mulegaon, Chakore, Thanapada, Jategaon, Behedpada	Paddy, Niger, Fingermillet, Littlemillet, Groundnut,Mango, Chilli, Onion, Garlic	<ol style="list-style-type: none"> 1. Pest and diseases in agronomical and vegetable crops 2. Unavailability of improved seed in agronomical crops 3. FMD, BQ and HS in problems in animals 4. Hemoglobin deficiency in pregnant women 5. Low yields in traditional poultry breed 6. Unbalanced diet in tribal families 7. Imbalanced use of fertilizer in finger millet, paddy & onion 8. Huge store grain losses 9. Lack of proper family nutrition 10.Lack of used of fertilizers 	<ol style="list-style-type: none"> 1. IPM in agronomical and vegetable crops 2. Vegetable nursery management 3. Nutrition management through Kitchen gardening 4. Improving the poultry birds 5. Providing the improved seed 6. Health and hygiene in animals 7. Improving health of pregnant women. 8. Soil test based fertilizer application in finger millet, paddy & onion. 9. low cost storage bins 10. Nutritional garden 11. Introduction of seasonal and perennial horticulture crops
Sinnar	Moh, Agaskhind, Nimgaon Sinnar	Potato, gram, Soybean,	<ol style="list-style-type: none"> 1. Use of traditional varieties 2. Non judicious use of pesticides 3. Lack of low level mechanization 4. Low yields in traditional birds 5. FMD, BQ and HS in problems in animals 6. Unbalanced diet in tribal families 7. Improper use fertilizers 	<ol style="list-style-type: none"> 1. Use of Improved varieties in agronomical crops 2. Improved farm machineries 3. Low cost protective cultivation techniques 4. Formation of groups for effective transfer of technologies (TTC's) 5. Nutrition management through Kitchen gardening 6. Improving the poultry birds 7. Health and hygiene in animals 8. Soil test based fertilizer application

Nashik	Sarul, Dugaon	Garlic, Nursery Management, Paddy, Groundnut , Value Addition	<ol style="list-style-type: none"> 1. Use of local variety in Garlic 2. High cost of groundnut crop related operation 3. Low price realization in Rice milling 4. Lack of entrepreneurship in vegetable nursery & Value addition. 	<ol style="list-style-type: none"> 1. Use of Improved varieties in Garlic. 2. Improved farm machineries in Paddy processing. 3. Skill development in nursery & Value addition of fruit & vegetable.
Peth	Kayre, Sadarpada, Zari, Hompada, Kadwaipada, Ghanshet	Paddy, Niger, Finger millet, Little millet, Groundnut, Mango, Chilli, Onion, Garlic Backyard poultry, Goatary	<ol style="list-style-type: none"> 1. Lack of pruning in mango & cashew nut 2. Low productivity of poultry birds & goats due to local breeds 3. Lack of alternative crop in lean season. 4. Use of traditional varieties 5. No crop in rabi paddy cropping system. 6. Lack of used of fertilizers 11. Lack of proper family nutrition 12. Lack of awareness of de-silting of water bodies 	<ol style="list-style-type: none"> 1. Skill development pruning in mango & cashew nut 2. Introducing improved breeds of Backyard poultry & goat 3. Plantation of mango & Cashew nut on non cultivated cultivable lands. 4. Soil test based fertilizer application 5. Nutritional garden 6. Introduction of perennial horticulture crops 7. De-silting form water bodies through convergence
Igatpuri	Mengal wadi, Dhamangaon, Pimpalgaon Ghadga	Paddy, Niger, Finger millet, Little millet, Mango, Onion, Vegetables, Backyard poultry, Goatary	<ol style="list-style-type: none"> 1. Lack of pruning in mango & cashew nut 2. Low productivity of poultry birds & goats due to local breeds 4. Lack of alternative crop in lean season. 5. Use of traditional varieties 6. No crop in rabi paddy cropping system. 7. Lack of used of fertilizers 13. Lack of proper family nutrition 14. Lack of awareness of de-silting of water bodies 	<ol style="list-style-type: none"> 1. Skill development pruning in mango & cashew nut 2. Introducing improved breeds of Backyard poultry & goat. 3. Plantation of mango & Cashew nut on non cultivated cultivable lands. 4. Soil test based fertilizer application 5. Nutritional garden 6. Introduction of perennial horticulture crops 7. De-silting form water bodies through convergence
Chandwad	Bahadurwadi, Jopul	Grape, Onion, Tomato, Maize, G'nut, Bengal gram, Poultry	<ol style="list-style-type: none"> 1. Use of traditional varieties 2. Poor storage life of Onion 3. Non judicious use of pesticides 4. Lack of low level mechanization 5. Lack of alternate crop Improper use of fertilizers 	<ol style="list-style-type: none"> 1. Use of Improved varieties in agronomical crops 1. Improved cultivation practices to prolong storage life in Onion 2. Integrated pest management. 3. Improved farm machineries 4. Soil test based fertilizer application 5. Introduction of perennial horticulture crop

2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
Oilseed and Pulses	Improving the yield of oilseed, pulses and cereals by introducing the improved variety
Field Crops	Use of Improved cultivation practices in agronomical crops
Field Crops	Soil test based fertilizer recommendation
Field Crops	Integrated nutrient management
Field Crops	Use of bio-fertilizers for improved crop performance
Grapes	Improved cultivation practices in quality fruit production in Grapes
Onion, Garlic	Improved cultivation practices to prolong storage life in Onion and Garlic
Mango	Introduction of alternative cropping pattern through horticultural crops
Flower crops	Improved management for Quality improvement in flower crops
Fruit and Vegetable	Post harvest management in horticultural crops
Nursery Management	Self-employment through fruit and veg nurseries in grapes & Horticulture crops
Field Crops	Integrated pest management in fruits vegetables, oilseeds and pulses
Vegetable crops	Safe & judicious use of pesticides for residue management
Organic farming	Organic farming, bio-pesticides, bio-fertilizers,
Vermi-compost	Production and supply of Worms, Recycling of Agro waste
Farm Mechanization	Improved farm machineries for labour, cost, time saving and drudgery reduction.
Farm Mechanization	Introduction of the selected improved farm machineries for major crops of the district.
Fruit & vegetable crops	Irrigation & fertilizers management through drip in fruit & vegetable crops
Vegetable and flowers	Protective cultivation of high value vegetable and flowers
Agril Information	Information about various developmental activities of different departments
Tech adoption & Impact	Assessment and impact evaluation of activities of KVK, Awareness of farmers about Internet
Survey Method	Imparting technical skill about PRA survey
Women child care	Introduce Nutritious foods in farmwomen's & school going children's diet.
Nutritional gardening	Popularize organic Nutritional gardening concept.
Women child care	Reduced laborious work through drudgery reduction technologies.
Agro processing	Develop Skill about soybean processing for increase it consumption.
Value addition	Create awareness about vegetable, fruit processing. Develop marketing skills
Backyard Poultry	Increase the productivity of animal & breed up gradation, small enterprise
Live stock health	Built Resistance for the diseases, Improve the health of live stock
Milk production	Clean Milk Production
Goat	Breed up gradation,
Animal nutrition	Nutrition management in animals, introduction and supply of improved fodder sets

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
8	7	125	112	20	19	750	705

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
150	160	6000	7587	100	178	10000	12200

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
0	0	40000	39297

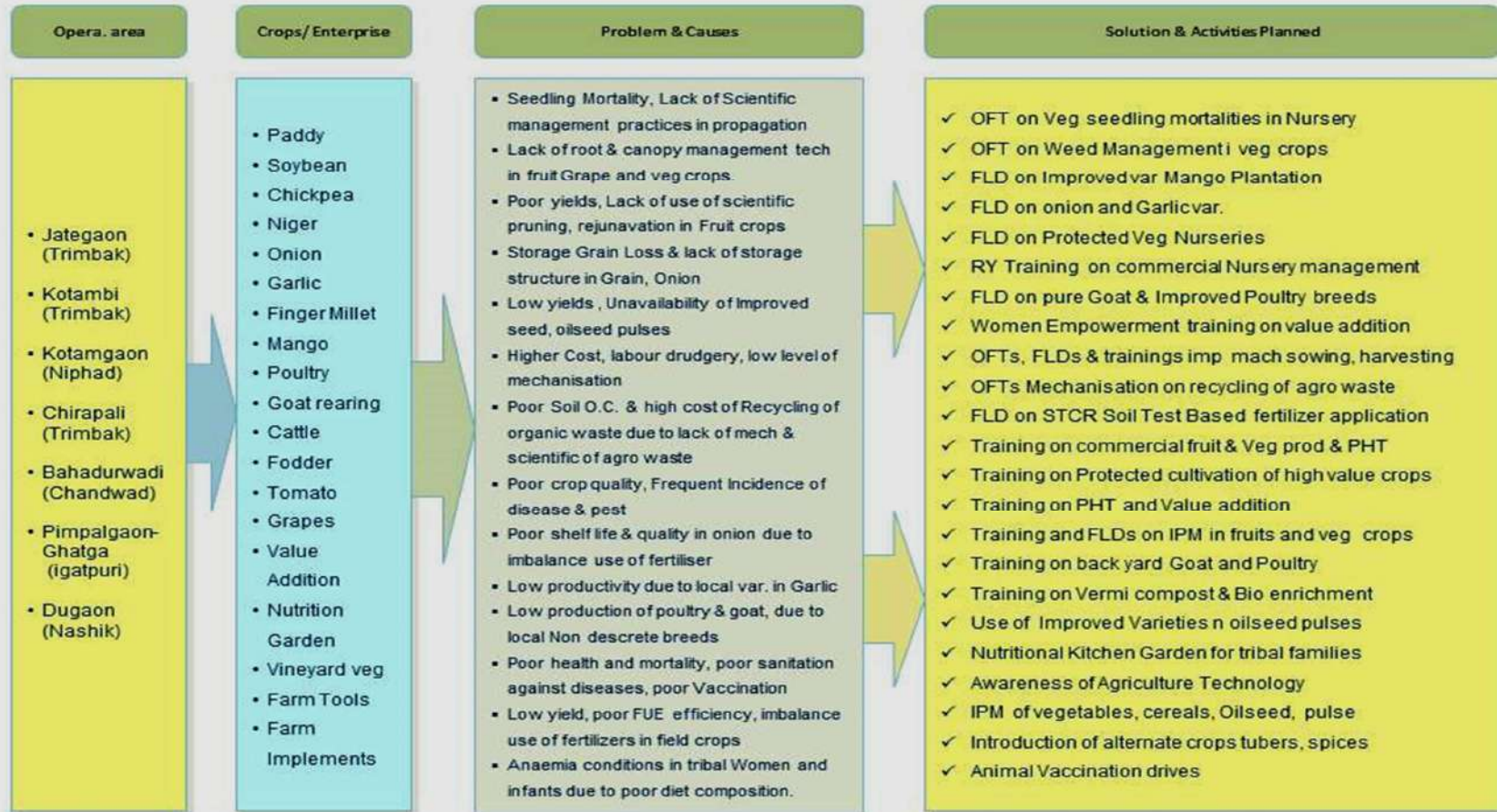
Livestock, poultry strains and fingerlings (No.)		Bio-products (lit)	
7		8	
Target	Achievement	Target	Achievement
500	511	1000	1227

3.1. B. Operational areas details during 2023

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.)*
<ul style="list-style-type: none"> • Paddy • Soybean • Chickpea • Niger • Finger Millet • Mango • Onion • Garlic • Dolichus lablab • Tomato • Grapes • Vineyard veg • Value Addition • Nutrition Garden • Farm Tools • Farm implements • Poultry • Goat rearing • Cattle • Fodder 	<ul style="list-style-type: none"> • Seedling Mortality, Lack of Scientific management practices in propagation • Lack of root & canopy management tech in fruit Grape and veg crops. • Poor yields, Lack of use of scientific pruning, rejuvenation in Fruit crops • Storage Grain Loss & lack of storage structure in Grain, Onion • Low yields , Unavailability of Improved seed, oilseed pulses • Higher Cost, labour drudgery, low level of mechanisation • Poor Soil O.C. & high cost of Recycling of organic waste due to lack of mechanization & scientific agro waste management • Poor crop quality, Frequent Incidence of disease & pest • Poor shelf life & quality in onion due to imbalance use of fertiliser • Low productivity due to local var. in Garlic • Low production of poultry & goat, due to local Non discrete breeds • Poor health and mortality, poor sanitation against diseases, poor Vaccination • Low yield, poor FUE efficiency, imbalance use of fertilizers in field crops • Anaemia conditions in tribal Women and infants due to poor diet composition. 	8 tahasils in the jurisdiction of KVK, Nashik-I	<ul style="list-style-type: none"> • Behedpada (Trimbak) • Jategaon (Trimbak) • Kotambi (Trimbak) • Kotamgaon (Niphad) • Chirapali (Trimbak) • Hirdi (Trimbak) • Bahadurwadi (Chandwad) • Jopul (Chandwad) • Dugaon (Nashik) • Kadavaipada (Peth) • Hompada (Peth) 	<ul style="list-style-type: none"> • OFT on Veg seedling mortalities in Nursery • OFT on Weed Management i veg crops • FLD on Improved var Mango Plantation • FLD on onion and Garlic var. • FLD on Protected Veg Nurseries • RY Training on commercial Nursery management • FLD on pure Goat & Improved Poultry breeds • Women Empowerment training on value addition • OFTs, FLDs & trainings imp mach sowing, harvesting • OFTs Mechanisation on recycling of agro waste • FLD on STCR Soil Test Based fertilizer application • Training on commercial fruit & Veg prod & PHT • Training on Protected cultivation of high value crops • Training on PHT and Value addition • Training and FLDs on IPM in fruits and veg crops • Training on back yard Goat and Poultry • Training on Vermi compost & Bio enrichment • Use of Improved Varieties n oilseed pulses • Nutritional Kitchen Garden for tribal families • Awareness of Agriculture Technology • IPM of vegetables, cereals, Oilseed, pulse • Introduction of alternate crops tubers, spices • Animal Vaccination drives

* Supported with problem-cause and interventions diagram

Problem Cause Diagram



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

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	Mushroom	TOTAL
Integrated Nutrient Management	1	-	-	-	-	-	-	-	-	-	1
Varietal Evaluation	-	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	1	-	-	-	-	-	1
Resource Conservation Technology	-	-	-	-	-	-	-	-	-	-	-
Farm Machineries	-	-	-	-	-	1	-	-	-	-	1
Integrated Farming System	-	-	-	-	-	-	-	-	-	-	-
Seed / Plant production	-	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-	-
Drudgery Reduction	1	-	-	-	-	-	-	-	-	-	1
Storage Technique	-	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	1	1
Total	2	-	-	-	1	1	-	-	-	1	5

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds	-	1	-	-	-	1
Nutrition Management	1	-	-	-	-	1
Disease of Management	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-
TOTAL	1	1	-	-	-	2

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	Finger Millet	To assess the use of urea-DAP briquette technology in pair row planting of Finger Millet	2	10	
Varietal Evaluation					
Integrated Pest Management					
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management	Onion	Assessment of Control of weeds by adopting weedicidal combination Oxifluorfen,23.5%EC & Quizalpho ethyl 5% EC in rabi onion	3	20	
Resource Conservation Technology					
Farm Machineries	Grape	Introduction of Tractor operated pruned Grape Twine mulcher for insitu mulching	3	20	
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction		Assess of Bio fortified Red Rice in daily consumption to overcome the malnutrition for the Adolescent girl	2	25	
Storage Technique					
Mushroom cultivation	Mushroom	Assessment on different varieties of oyster mushroom cultivation	3	20	
Total			13	95	

B.2. Technologies assessed under Livestock & fishery assessment

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds	Poultry	Comparisons of Gramapriya and Black Australorp poultry breeds in Backyard rearing system	03 (Gramapriya - 50 Birds, Black Australorp - 50 Birds)	10
Production and management	Cattle	Use of Di-Calcium Phosphate in Crossbreed cows to reduce repeat breeding with improved production of milk	03 (21 animals)	07
Total			06	17

B.3 Technologies assessed under other enterprises

Name of Enterprises	Name of the technology assessed	No. of trials	No. of farmers
Mushroom	Assessment on different varieties of oyster mushroom cultivation	03	20
Apiary			
Vermicompost			
Tailoring			
Nutrition Garden			
Nursery Management			
Production and Management			
Eentrepneurship development			
Engegy consrvation			
storage techniques			
House hold food security			
organic farming			
mechanization			
Bee keeping			
Seed production			
post-harvest management			

B 4. Technologies assessed under Women empowerment assessment

Name of Enterprises	Name of the technology assessed	No. of trials	No. of farmers
Drudgery Reduction			
Entrepreneurship development			
Health and Nutrition	To assess of bio-fortified Red Rice as supplementary diet to overcome malnutrition for the Adolescence tribal girls	02	25
value addition			
Kitchen gardening			
nutrition security			

Results of On Farm Trial

C. 1. Results of Technologies Assessed

OFT-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
Finger Millet	Rainfed	Low productivity of Finger Millet due to no use of fertilizers	To assess the use of urea-DAP briquette technology in pair row planting of Finger Millet	10	1 Traditional planting technique without use of fertilizers 2 Improved pair row planting technique with use of Urea-DAP briquettes	1. Tillers per plant 2. Fingers per earhead 3. Length of finger 4. B:C ratio 5. Yield	Number Number cm Q/ha	3.5 10 13 3.38 25	The yield has increased due to pair row planting technique and use of urea-DAP briquettes	NIL	NIL

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	B:C Ratio
13	14	15	16	17	18
Traditional planting technique without use of fertilizers	Local	1500	Kg/ha	29625	2.30
Improved pair row planting technique with use of Urea-DAP briquettes	MPKV, Rahuri	2500	Kg/ha	61625	3.38

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

OFT-1

1	Title of Technology Assessed	:	To access the use of urea-DAP briquette technology in pair row planting of Finger Millet
2	Problem Definition	:	The area of Finger Millet cultivation is about 17000 ha in Nashik district. Out of this, 5700 ha area covered in Trambakeshwar tahasil under Finger Millet cultivated in kharif season. The productivity found 720kg/ha, which is very less as compared to state (1453kg/ha). Low productivity of Finger Millet due to no use of fertilizers, planting of seedlings without maintaining spacing and no use of plant protection technologies.
3	Details of technologies selected for assessment	:	1. Traditional planting technique without use of fertilizers 2. Improved pair row planting technique with use of Urea-DAP briquettes
4	Source of technology	:	MPKV, Rahuri
5	Production system and thematic area	:	Rainfed Finger Millet production system in light soil at hilly area with Integrated Nutrient Management
6	Performance of the Technology with performance indicators	:	Demonstrated technology performance indicator 1.Number of Tillers per plant : 3.5 2. Number of fingers per earhead : 10 3. Length of finger in cm : 13 4. B:C ratio : 3.38 5. Yield (qt/ha) : 25 Local technology performance indicator 1.Number of Tillers per plant : 3.1 2. Number of fingers per earhead : 8 3. Length of finger in cm : 7.4 4. B:C ratio : 2.30 5. Yield (qt/ha) : 15
7	Feedback, matrix scoring of various technology parameters done through farmer's participation/other scoring techniques	:	The pair row plantation helps in aeration between the rows which helps in more shoot development. The yield has increased due to use of urea-DAP briquettes
8	Final recommendation for micro level situation	:	The use of urea-DAP briquettes has increased yield in pair row planting Finger Millet
9	Constraints identified and feedback for research	:	Nil
10	Process of farmers participation and their reaction	:	The 10 progressive farmers of Finger Millet has been selected for demonstration of pair row planting technique with use of Urea-DAP briquettes. There were 10 demonstrations has conducted at Behedpada Tal.Trambakeshwar in Kharif 2023 season on 4 ha area. The pre-seasonal training on pair row planting technique with use of Urea-DAP briquettes has conducted. The seed of improved variety Phule Nachani, bio-pesticides and bio-fertilizers has distributed among the participants. The field visits arranged for crop inspection and guidance given accordingly. The field day has celebrated at maturity stage of crop and observations of qualitative parameter recorded.

Results of On Farm Trial

C. 1. Results of Technologies Assessed

OFT-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
Onion	Light – medium soils. Rain-fed	Weed problem Higher labour cost for weed control	Assesment of Control of weeds by adopting weedicidal combination Oxifluorfen,23.5%EC & Quizalpo ethyl 5% EC in rabi onion	20	Farmers Practice (T1) :Farmers Practice : 3-4 hand weddings	1.Yield, 2.Cost of cultivation, 3.Gross income, 4.Net income, 5.B:C ratio,	Kg/ha Rs/Ha Rs/ha Rs/ha	2896 63880 214889 103256 3.37	Farmers found effective result of weed development which saves two weeding which help to minimize labour cost. Controlled population of weed help to get good and satisfactory yield and quality in Rabi Onion.	-	-
					Assessed Practice (T2) .:Recommended Practice : Oxifluorfen,23.5%EC @1 ml/Lit + Quizolofopethyl 5% EC @2ml/Lit water after 20 days of transplanting + one hand weeding 35 days after transplanting	1.Yield, 2.Cost of cultivation, 3.Gross income, 4.Net income, 5.B:C ratio	Kg/ha Rs/Ha Rs/ha Rs/ha	3166 53927 222620 143958 4.12			
					Assessed Practice (T3) Recommended Practice : Oxifluorfen,23.5%EC @1 ml/Lit + Quizolofopethyl 5% EC @2ml/Lit water after 25 days of transplanting + one hand weeding 45 days after transplanting	1.Yield, 2.Cost of cultivation, 3.Gross income, 4.Net income, 5.B:C ratio	Kg/ha Rs/Ha Rs/ha Rs/ha	3279 53913 23490 150700 4.27			

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	B:C Ratio
13	14	15	16	17	18
Farmers Practice (T1) :Farmers Practice : 3-4 hand weeding	MPKV, Rahuri	2896	Kg/ha	103256	3.37
Assessed Practice (T2) :Recommended Practice : Oxifluorfen,23.5%EC @1 ml/Lit + Quizolofopethyl 5% EC @2ml/Lit water after 20 days of transplanting + one hand weeding 35 days after transplanting Assessed Practice		3166	Kg/ha	143958	4.12
Assessed Practice (T3) Recommended Practice : Oxifluorfen,23.5%EC @1 ml/Lit + Quizolofopethyl 5% EC @2ml/Lit water after 25 days of transplanting + one hand weeding 45 days after transplanting		3279	Kg/ha	150967	4.27

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

OFT-2

- | | | | |
|----|--|---|---|
| 1 | Title of Technology Assessed | : | Assesment of Control of weeds by adopting weedicidal combination Oxifluorfen,23.5%EC & Quizalpo ethyl 5% EC in rabi onion |
| 2 | Problem Definition | : | Heavy Rainfall, Small farm Holding, Fallow land after paddy |
| 3 | Details of technologies selected for assessment | : | To Assess economical impact and performance of weedicidal combination Oxifluorfen, 23.5%EC & Quizalpo ethyl 5% EC on late Rabi onion. |
| 4 | Source of technology | : | MPKV, Rahuri |
| 5 | Production system and thematic area | : | Integrated Weed Management |
| 6 | Performance of the Technology with performance indicators | : | Timely application of weedicides in Rabi onion crop followed by manual weeding help to cotraol the weed population. |
| 7 | Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques | : | Observations and data collected on 1.Yield, 2.Cost of cultivation, 3.Gross income, 4.Net income, 5.B:C ratio, given Farmers feedback . |
| 8 | Final recommendation for micro level situation | : | Use the weedicidal combination Oxifluorfen,23.5%EC & Quizalpo ethyl 5% EC followed by light weeding |
| 9 | Constraints identified and feedback for research | : | Need to conduct research on How to improve the effectiveness of weedicide as well as any issue regarding residual problem and soil health management. |
| 10 | Process of farmers participation and their reaction | : | Selected farmers who are cultivating late Rabi/Summer Onion from last three years with available irrigation facility. |

Results of On Farm Trial

C. 1. Results of Technologies Assessed

OFT-3

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement																								
1	2	3	4	5	6	7	8	9	10	11	12																								
Mechanization in shedding of of pruned twines & mulching in Grape	Irrigated	Grape cultivation involves high labour and cost for removal of pruned twines laying of external organic material bed mulching	Tractor operated pruned Grape Twine mulcher for insitu muching	20	Tractor operated Side Discharge Flail Mulcher for pruned Twine insitu mulching	Labour Output, Cost	<table border="1"> <thead> <tr> <th>Para meter</th> <th>Demo</th> <th>Check</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Labour, Nos,</td> <td>6</td> <td>66</td> <td>(-)90%</td> </tr> <tr> <td>Output, Ha/day</td> <td>2.11</td> <td>0.36</td> <td>(+)486%</td> </tr> <tr> <td>Cost, Rs.Ha</td> <td>6400</td> <td>30100</td> <td>(-)78%</td> </tr> </tbody> </table>	Para meter	Demo	Check	%	Labour, Nos,	6	66	(-)90%	Output, Ha/day	2.11	0.36	(+)486%	Cost, Rs.Ha	6400	30100	(-)78%	<table border="1"> <thead> <tr> <th>Para meter</th> <th>% saving</th> </tr> </thead> <tbody> <tr> <td>Labour, Nos,</td> <td>(-)90%</td> </tr> <tr> <td>Output, Ha/day</td> <td>(+)486%</td> </tr> <tr> <td>Cost, Rs.Ha</td> <td>(-)78%</td> </tr> </tbody> </table>	Para meter	% saving	Labour, Nos,	(-)90%	Output, Ha/day	(+)486%	Cost, Rs.Ha	(-)78%	Best suited for insitu and fast recycling of farm organic waste . Saving in the labor, time and cost of mulching.	For varied row spacing adjustable width chute discharge chute will be suitable for varied row spacing	Plantation with varies row spacing are practiced for different soils and varieties
Para meter	Demo	Check	%																																
Labour, Nos,	6	66	(-)90%																																
Output, Ha/day	2.11	0.36	(+)486%																																
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Labour, Nos,	(-)90%																																		
Output, Ha/day	(+)486%																																		
Cost, Rs.Ha	(-)78%																																		

Contd..

Technology Assessed	Source of Technology	Production	unit	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15	16	17	18
Tech option 1 (Farmer's practice): Manual pruned grape twine removal from field and external organic trash mulching manually	Traditional manual removal of pruned twines	NA	NA	NA	NA
Technology option 2 locally available Tractor PTO operated stationary shredder	AICRP, FIM MPKV, Rahuri recommended direct seeder	NA	NA	NA	NA
Technology option 3: New Tractor operated Side Discharge flail mulcher for pruned Grape Twine insitu mulching	AICRP, FIM MPKV, Rahuri recommended direct seeder	NA	NA	NA	NA

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

OFT-3

1. Title of Technology Assessed : Introduction of Tractor operated pruned Grape Twine mulcher for insitu mulching
2. Problem Definition: Grape cultivation involves high labour and cost for removal of pruned twines, laying of external organic mulching. Grape is a commercial crop of the District and occupies prominent position in its shares in the district economy. However, this crop needs many crop practices with large labour requirement. April pruning and its removal and addition of external organic mulch is now a regular practice to better crop and O. C. in soil. Hence need insitu addition of own farm waste through mechanization. This also bears large custom hiring potential.
3. Details of technologies selected for assessment: almost all the pruned twine removal is done manually .These twines are normally decomposed for next season or burnt.
Technology option 1 (Farmer's practice): Manual pruned grape twine removal from field and external organic trash mulching manually,
Technology option 2: locally available Tractor PTO operated stationary shredder, Technology option 3: New Tractor operated Side Discharge flail mulcher for pruned Grape Twine insitu mulching
4. Source of technology ; AICRP, FIM MPKV, Rahuri recommended direct seeder
5. Production system and thematic area: Horticulture, Agricultural mechanization
6. Performance of the Technology with performance indicators: Large saving in the labour requirement 90%, machine with increased output by 480% and cost saving by 78% compared to the manual removal of pruned Twines. Helps fast decomposing and saves extra cost for addition of external organic trash mulch manually.
7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques :
8. Final recommendation for micro level situation: Tractor Operated Side discharge Fail mulcher is Suitable to replace major operation of pruned twine removal in grapes with up scaling potential through custom hiring.
9. Constraints identified and feedback for research and developmental departments: No major Constraint observed on operation front. However adjustable side discharge shall be additional facility to cater varied spacing. Cost of the machine need to be subsidies
10. Process of farmers' participation and their reaction: Grape being a major crop of the district & large quantum especially small farmers are engaged in cultivation. This crop has been selectively mechanized and fetched high cultivation cost. Hence, farming, socioeconomic conditions and need were assessed for the crop in selected villages. As per the felt need, the village farmers groups were actively involved in the assessment of the machine for first year. The Manufacturer was also involved in the trials to ascertain the technicalities in the operations and minor modifications if sought by the farmer to suit the local conditions. The farmers are very much satisfied with its present performance and its see its up scaling.

Results of On Farm Trial

C. 1. Results of Technologies Assessed

OFT-4

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Adolescence girl		Malnourishment of infants ,toddler, adolescence girls & women in tribal area due to lack of iron ,calcium, protein rich food	Assess of Bio fortified Red Rice in daily consumption to overcome the malnutrition for the Adolescent girl	25	Farmers practice- Regular diet	1.Weight kg – Initial Wt (kg)	35.042	Weight of adolescent girls had increased 2.87 % and Hemoglobin had increased 1.8 % compared to the other girls	New variety of bio fortified red rice is proving to be helpful in increasing the weight and hemoglobin of our daughters.		
						Final Wt (kg)	35.492				
					Technology assessed –T1 + 50gm/day Bio-Fortified RedRice(3 months)	Initial Wt (kg)	35.013				
						Final Wt (kg)	36.018				
					Hemoglobin(%)	Before (Hb)	7.5				
						After (Hb)	9.3				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	B:C Ratio
13	14	15	16	17	18
Technology option 1 (Farmer’s practice): Regular diet					
Technology option 2 :T1 + 50gm/day Bio-Fortified Red Rice	NAU, Navsari (GNR-4) 2018				

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

OFT-4

- | | | | |
|-----------|--|---|--|
| 1 | Title of Technology Assessed | : | Assess of Bio fortified Red Rice in daily consumption to overcome the malnutrition for the Adolescent girl |
| 2 | Problem Definition | : | Malnourishment of infants ,toddler ,adolescence girls & women in tribal area due to lack of iron ,calcium, protein rich food |
| 3 | Details of technologies selected for assessment | : | Bio-Fortified Red Rice |
| 4 | Source of technology | : | NAU, Navsari (GNR-4) 2018 |
| 5 | Production system and thematic area | : | Women and Child Nutrition |
| 6 | Performance of the Technology with performance indicators | : | Due to the use of Bio fortified red rice, there was a weight gain of 2.87 % in the underweight adolescent girls. Also their Hemoglobin had increased by 1.8 % as compared to other girls. |
| 7 | Feedback, matrix scoring of various technology parameters done through farmer's participation/other scoring techniques | : | New variety of bio fortified red rice is proving to be helpful in increasing the weight and hemoglobin of our daughters. The parameter considered for this is weight and hemoglobin. |
| 8 | Final recommendation for micro level situation | : | Such high nutritious and iron rich bio fortified red rice must be provided to all the adolescence girl in tribal areas |
| 9 | Constraints identified and feedback for research | : | Less awareness, Illiteracy, low income of family and high cost of bio fortified red rice. |
| 10 | Process of farmers participation and their reaction | : | Girls were selected after the discussions with ICDS (Zillah Parishad) Nasik from tribal area were mal nutrition prominent. Mal nutrition gets reduced by adopting the consumption of bio fortified red rice. |

C. 1.Results of Technologies Assessed

OFT-5

1	2	3	4	5	6	7	8	9	10	11	12
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
Oyster Mushroom		1.Lack of knowledge about utilization of farm residue 2.Less knowledge about different varieties of oyster mushroom	Assessment of different varieties of oyster mushroom cultivation	20	Farmers practice-T1 PleurotusSajorCaju Technology assessed –	1. Production kg/bag (5 kg wet paddy straw) 2.Duration/days	1.5kg 42	Pleurotus Blue has high yield and less duration compared to Pleurotus Florida and PleurotusSajorCaju	Mushrooms are cultivated in less space with low cost and have more yields with good income from available waste raw material		
				T2- Pleurotus Florida Technology assessed –	1. Production kg/bag (5 kg wet paddy straw) 2.Duration/days	1.7kg 40					
				T3- Pleurotus Blue	1. Production kg/bag (5 kg wet paddy straw) 2.Duration/days	2kg 39					

Contd..

13	14	15	16	17	18
Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	B:C Ratio
Technology option 1 (Farmer's practice):PleurotusSajorCaju	DMR ,Solan (HP)	72 kg	Kg/ 50 beds	11900	4.76
Technology option 2:Pleurotus Florida	DMR ,Solan (HP)	78 kg	Kg/ 50 beds	13100	5.24
Technology option 3 :Pleurotus Blue	DMR ,Solan (HP)	100 kg	Kg/ 50 beds	17500	7

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

OFT-5

- | | | | |
|-----------|--|---|---|
| 1 | Title of Technology Assessed | : | Assessment on different varieties of oyster mushroom cultivation |
| 2 | Problem Definition | : | 1.Lack of knowledge about utilization of farm residue 2.Less knowledge about different varieties of oyster mushroom |
| 3 | Details of technologies selected for assessment | : | Cultivation of PleurotusSajorCaju, Pleurotus Florida, Pleurotus Blue mushroom on paddy straw. |
| 4 | Source of technology | : | DMR ,Solani |
| 5 | Production system and thematic area | : | Income Generation Activity |
| 6 | Performance of the Technology with performance indicators | : | : Quantity of the mushroom cultivated and time required for cultivation with similar inputs like raw materials and environmental condition. |
| 7 | Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques | : | Pleurotus Blue has high yield and less duration compared to Pleurotus Florida and PleurotusSajorCaju and taste of this mushroom is good. |
| 8 | Final recommendation for micro level situation | : | All above mentioned varieties of mushroom were cultivated in dark room with 25 -30°C room temperature and 80-85 % relative humidity. The same raw material is used for all mushroom beds. Watering was also kept same for all varieties of mushroom beds. |
| 9 | Constraints identified and feedback for research | : | : Unawareness about mushroom its types and used, Marketing and awareness to customer. Unavailability of the resources and environmental condition. |
| 10 | Process of farmers participation and their reaction | : | Awareness lectures among the SHGs and farmers.2. Training session for cultivation of mushroom to interested farmers.3.Helping them during cultivation, harvesting and marketing. Through this process other farmers are attracted because of high yield and income from agricultural residue. |

Results of On Farm Trial

C. 1. Results of Technologies Assessed

OFT-6

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
Cattle	Intensive farming	1.Low milk yield, 2. Repeat breeding & 3. Retention of placenta due to imbalanced minerals	Use of Di-Calcium Phosphate in Crossbred cows to reduce repeat breeding with improved production of milk	07 (21 animals)	T1 - Farmers practice/animal - 30 kg Green fodder/day + 5-6 kg Kadabi/day + 300gm concentrate per lit. of milk + 30 gm Mineral mix.	1. Conception % 2. Average Milk yield litre/cow/lactation 3. Cost on feeding (Rs.) 4. B:C ratio	57.14 4321 79714/ 1.90	With use of Di-Calcium phosphate the conception rate and milk production performances of cows, both showing significant results.	Di-Calcium phosphate is easy to feed to animals...but availability of the same is not convenient.		
					T2 - Recommended technology/animal - 30 kg Green fodder/day + 5-6 kg Kadabi/day + 400gm concentrate per lit. of milk + 50 gm Mineral mix.	1. Conception % 2. Average Milk yield litre/cow/lactation 3. Cost on feeding (Rs.) 4. B:C ratio	71.43 5468 91235/ 2.10				
					T3 - Technology Assessed/animal - T2 + 50 gm extra Mineral mix. (Total 100 gm) + 100 gm Di Calcium phosphate	1. Conception % 2. Average Milk yield litre/cow/lactation 3. Cost on feeding (Rs.) 4. B:C ratio	85.71 6257 92812/ 2.36				

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./cow	B:C Ratio
13	14	15	16	17	18
T1 - Farmers practice/animal - 30 kg Green fodder/day + 5-6 kg Kadabi/day + 300gm concentrate per lit. of milk + 30 gm Mineral mix.	IVRI Izzatnagar, Bareilly	4321	litre/cow/lactation	71521/-	1.90
T2 - Recommended technology/animal - 30 kg Green fodder/day + 5-6 kg Kadabi/day + 400gm concentrate per lit. of milk + 50 gm Mineral mix.		5468	litre/cow/lactation	100145/-	2.10
T3 - Technology Assessed/animal - T2 + 50 gm extra Mineral mix. (Total 100 gm) + 100 gm Di-Calcium phosphate		6257	litre/cow/lactation	126183/-	2.36

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

OFT-6

- 1 Title of Technology Assessed : Use of Dicalcium Phosphate in Crossbred cows to reduce Repeat breeding with improved production of Milk.
- 2 Problem Definition : 1.Low milk yield, 2. Repeat breeding &3. Retention of placenta due to imbalanced minerals
- 3 Details of technologies selected for assessment : Use of Di-Calcium phosphate as an additional supplement to cows
- 4 Source of technology : IVRI Izzatnagar, Bareilly
- 5 Production system and thematic area : Production and Management
- 6 Performance of the Technology with performance indicators : In Farmers practice (T1) - Conception rate 57.14 %, Milk production 4321 litre/cow/lactation while B:C ration is 1.90
In Recommended practice (T2) - Conception rate 71.43 %, Milk production 5468 litre/cow/lactation while B:C ration is 2.10
In Assessed technology (T3) - Conception rate 45.71 %, Milk production 6257 litre/cow/lactation while B:C ration is 2.40
- 7 Feedback, matrix scoring of various technology parameters done through farmer's participation/other scoring techniques : Di-Calcium phosphate is easy to feed to animals...but availability of the same is not convenient.
- 8 Final recommendation for micro level situation : With use of Di-Calcium phosphate the conception rate and milk production performances of cows, both showing significant results.
- 9 Constraints identified and feedback for research : Di-Calcium phosphate is not available everywhere easily.
- 10 Process of farmers participation and their reaction : Di-Calcium phosphate should be available at any chemist. Di-Calcium phosphate is proving very useful for successful pregnancy of cows and increase in milk production is also observed.

C. 1.Results of Technologies Assessed

OFT-7

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
Poultry	Backyard system	Low income potential of local Poultry breeds	Comparisons of Gramapriya and Black Australorp poultry breeds in Backyard rearing system with local breeds	10 (Gramapriya - 50 Birds, Black Australorp - 50 Birds compared with local 50 birds)	T1-Farmers practice - Use of Local Poultry breed	1. Weight gain/bird - Kg (3.5 months age) 2. Cost on feeding/bird (Rs.) 3. B:C ratio	0.716 142/- 1.30	Black Australorp birds are beneficial than Gramapriya and local ones.	Black Australorp is phenotypically same to desi birds with higher weight gains and best meat taste.	-	-
					T2- Improved technology - Use of Gramapriya improved poultry breed	1. Weight gain/bird - Kg (3.5 months age) 2. Cost on feeding/bird (Rs.) 3. B:C ratio	0.988 156/- 1.43				
					T3 - Improved technology - Use of Black Australorp improved poultry breed	1. Weight gain/bird - Kg (3.5 months age) 2. Cost on feeding/bird (Rs.) 3. B:C ratio	1.198 161/- 1.72				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	B:C Ratio
13	14	15	16	17	18
T1-Farmers practice - Use of Local Poultry breed	CPDO, Mumbai	0.716	Kg/bird (3.5 months age)	42/-Rs./bird	1.30
T2- Improved technology - Use of Gramapriya improved poultry breed		0.988	Kg/bird (3.5 months age)	67/-Rs./bird	1.43
T3 - Improved technology - Use of Black Australorp improved poultry breed		1.198	Kg/bird (3.5 months age)	115.76/-Rs./bird	1.72

On Farm Testing's



Finger Millet - ICM



Grape Twine Mulcher



Poultry Broiler Black Australorp birds

Exposure Visit at Solan



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

OFT-7

1	Title of Technology Assessed	:	Comparisons of Gramapriya and Black Australorp poultry breeds in Backyard rearing system with local breeds
2	Problem Definition	:	Low income potential of local Poultry breeds
3	Details of technologies selected for assessment	:	Use of Gramapriya and Black Australorp poultry breeds in backyard system.
4	Source of technology	:	CPDO, Mumbai
5	Production system and thematic area	:	Evaluation of Breed
6	Performance of the Technology with performance indicators	:	In Farmers practice (T1) - Weight gain/bird - 0.716 Kg (3.5 months age) while B:C ratio is 1.30 In Recommended practice (T2) - Weight gain/bird - 0.988 Kg (3.5 months age) while B:C ratio is 1.43 In Assessed technology (T3) - Weight gain/bird - 1.198 Kg (3.5 months age) while B:C ratio is 1.72
7	Feedback, matrix scoring of various technology parameters done through farmer's participation/other scoring techniques	:	Black Australorp is phenotypically same to desi birds with higher weight gains and best meat taste.
8	Final recommendation for micro level situation	:	Black Australorp birds are beneficial than Gramapriya and local ones.
9	Constraints identified and feedback for research	:	Brooding and Vaccination of birds should be done by experts and such birds must be available to farmers for rearing.
10	Process of farmers participation and their reaction	:	Black Australorp is phenotypically same to desi birds with higher weight gains with best meat taste & higher egg production.

3.3. FRONTLINE DEMONSTRATION

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

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

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1.	Onion	Crop Production	Agrifound Light Red	Front line demonstration, Field Day, Training	06	165	35
2.	Garlic	Crop Production	Yamuna Safed	Front line demonstration, Field Day, Training	03	95	8
3.	Finger millet - STCR	INM	STCR Based fertilizer application	Kharif 2023	1	20	4
4.	Paddy- STCR	INM	STCR Based fertilizer application	Kharif 2023	1	30	6
5.	Onion -STCR	INM	STCR Based fertilizer application	Rabi 2022	1	20	4

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

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
Agronomy										
Cereals										
1	Paddy	INM	Fourfold Technology	Kharif 2023	10	10	50	-	50	-
Oilseeds										
1	Soybean	ICM	Varietal Demonstration	Kharif 2023	10	10	-	25	25	The trial has been failed due to scarcity of precipitation. Only 39mm rainfall received during 18 July to 8 September. 2023
Pulses										
1	Chickpea	ICM	Variety	Rabi 2022-23	10	10	25	-	25	-
Horticulture										
1	Onion	Crop Production	Variety: Agrifound Light Red	Rabi 2022	08	08	40	00	40	
2	Garlic	Crop Production	Variety: Yamuna Safed	Rabi 2022	0.4	0.4	50	00	50	
3	Mango	Fruit orchard management	Variety :Kesar	Kharif 2023	02	02	50	00	50	Yield will be start after 3 years after plantation.
4										

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					
Paddy	Kharif 2023	Rainfed	Light to Medium	Low	Low	Medium	Fallow	20.07.2023	20.11.2023	1420.7	24
Soybean	Kharif 2023	Rainfed	Medium to heavy	Low	Low	Medium	Chickpea	05.07.2023	-	220	9
Chickpea	Rabi 2022-23	Rainfed	Medium to heavy	Low	Low	Medium	Paddy	16.11.2022	10.03.23	55	2
Onion	Rabi 2022	Irrigated	Light to medium	Low	Low	high	Paddy	Dec 2022	April 2023	706.2	55
Garlic	Rabi 2022	Irrigated	Light to medium	Low	Low	high	Paddy	Dec 2022	April 2023	706.2	55
Mango	Kharif 2023	Irrigated	Light to medium	Low	Low	high	Fellow land /farm bunds	June 2023	May 2026	706.2	55
Finger millet - STCR	Kharif 2023	Rainfed	Sloppy, Light	Low	Low	high	Fallow	July 2023	Nov 2023	706.2	55
Paddy -STCR	Kharif 2023	Irrigated	Light to medium	Low	Low	high	Onion	July 2023	Nov 2023	706.2	55
Onion -STCR	Rabi 2022	Irrigated	Light to medium	Low	Low	high	Paddy	Dec 2022	April 2023	706.2	55

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1. Paddy: Fourfold Technology	<ul style="list-style-type: none"> The row to row and plant to plant distance maintained at 15-25cm, which helps good aeration and intercultural operation. The ash of rice husk and rice straw utilized in nursery and rice field which enhances the physical properties of soil. Green manuring of sunhemp supplied nitrogen to plants and enhances the physical properties of soil. The use of urea-DAP briquettes released nutrients slowly which fulfilled need of nutrition of plant up to growing stage
2. Soybean : Variety- Phule Sangam	<ul style="list-style-type: none"> The variety matured in 105-110 days with 30-35 qt/ha yield. The shape of seed found to be round with medium size and yellow in colour. The average of pods observed to be 47 per plant with 2.5 seeds per pod. It is found to be moderate resistance to stem fly, defoliators, pod borer, leaf folder and Bacterial Pustule, Charcoal Rot. The average protein percentage recorded 41 with 21 percent oil content.
3. Chickpea : Variety Phule Vikram + ICM	<ul style="list-style-type: none"> The variety matured in 105-110 days with 16-18 qt/ha yields in rainfed situation. The variety yields 35-40 qt/ha in irrigated situation and 20-22 qt/ha in late sown situation. The pods grow erected so it can be harvested by combine harvester. It is found to be resistance to wilt disease. The average pod size is medium.
4. Onion	<ul style="list-style-type: none"> Good attractive colour Big bulb size High Higher yield Low % of joint onion Good Shelf life
5. Garlic	<ul style="list-style-type: none"> Good attractive colour Big bulb size High pungency
6. Mango	<ul style="list-style-type: none"> Higher survival Rate,
7. Paddy-STCR	<ul style="list-style-type: none"> The paddy yield has increased with STCR technology
8. Finger Millet-STCR	<ul style="list-style-type: none"> The Finger Millet yield has increased with STCR technology
9. Onion- STCR	<ul style="list-style-type: none"> The maximum yield level could not achieve due to light to medium type of soil in Rabi onion.

Frontline Demonstration Fruit crop Mango



Farmers' reactions on specific technologies

S. No	Feed Back
1. Paddy: Fourfold Technology	<ul style="list-style-type: none"> • The spacing between row and plant gives more aeration which helps in maximizing more shoots development. • The planting technique is tedious and time consuming, but can adopt easily with practicing. • The urea-DAP briquettes helps to enhance yield. • The physical property enhanced due to use of green manuring.
2. Soybean : Variety- Phule Sangam	<ul style="list-style-type: none"> • The variety cannot stand with less moisture condition
3. Chickpea : Variety Phule Vikram + ICM	<ul style="list-style-type: none"> • The bio-fertilizer, integrated approach of nutrient management and pest, disease management enhanced yield
4. Onion variety ALR	<ul style="list-style-type: none"> • Onion variety Agri found Light Red given higher yield than local variety. Average bulb size is good. Less percentage of joint onions. Bulbs are bigger in shape with tight skin and light red colour. Higher Storage life given Good Rate in Off Season.
5. Garlic variety Yamuna safed	<ul style="list-style-type: none"> • Garlic variety Yamuna safed (G-284) is attractive white colour with bold bulb size. Good market rate. Higher yield over to local variety. Resistance to disease and pests. Higher Storage life
6. Paddy-STCR	<ul style="list-style-type: none"> • More tillers observed so resulted in increased yield.
7. Finger Millet-STCR	<ul style="list-style-type: none"> • Observed more tillers, more fingers and increased finger length so, resulted in increased yield.
8. Onion- STCR	<ul style="list-style-type: none"> • Soil test based fertilizer application increased yield

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
	Agronomy				
1	Field days				
	Chickpea CFLD Rabi 2022-23	2	28.02.2023, 21.03.2023	57	
	Paddy FLD Kh. 2023	1	25.10.2023	32	
	Finger Millet OFT Kh. 2023	1	25.10.2023	32	
2	Farmers Training				
	Chickpea CFLD Rabi 2022-23	5	16.11.2022, 11.01.2023,,0.01.2023, 28.02.2023, 22.05.2023	181	
	Paddy FLD Kh. 2023	3	25.07.2023, 12.09.2023, 12.12.2023	88	
	Finger Millet OFT Kh. 2023	3	25.07.2023, 12.09.2023, 26.09.2023	124	
	Soybean CFLD Kh. 2023	2	30.06.2023, 05.07.2023	39	
3	Media coverage				
4	Training for extension functionaries	16	20.02.2023, 21.03.2023, 18.04.2023, 03.05.2023, 08.05.2023, 11.05.2023, 17.05.2023, 31.05.2023, 12.06.2023, 19.06.2023, 27.06.2023, 20.07.2023, 09.08.2023, 04.09.2023, 09.10.2023, 07.11.2023	568	
	Soil Science				
1	Training for farmers				
	Paddy – STCR	01	25/07/23	22	
	Finger Millet –STCR	01	25/07/23	22	
2	Method demonstration				
	Paddy -STCR	01	03/05/23	16	
	Finger millet STCR	01	03/05/23	16	
4	Scientific visit				
	Paddy-STCR	01	25/07/23	22	
	Finger millet - STCR	01	25/07/22	22	
	Onion -STCR	01	21/03/23	17	
5	Field days				
	Paddy – STCR	01	25/10/23	22	
	Finger Millet –STCR	01	25/10/23	22	
	Onion -STCR	01	25/04/23	17	
	Horticulture				
1	Field days				
	Onion & Garlic	02	26/04/23	73	
	Farmers Training				
	Mango	02	08/07/2023	112	
	Onion	02	03/01/2023	54	
	Garlic	01	20/10/2022	25	
3	Media coverage :				
4	Training for extension functionaries				
5	Method demonstration				
6	Exposure Visit Onion Garlic Research Station	01	15-16/02/2023	38	

Frontline Demonstration on Onion and Garlic



Frontline Demonstration on crops



Four Fold Paddy



STCR Paddy



STCR Finger millet

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										
Soybean																		
	ICM	Variety	Phule Sangam	25	10	The trial has been failed due to scarcity of precipitation. Only 39mm rainfall received during 18 July to 8 September. 2023												

* 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										
Chickpea																		
	ICM	Variety	Phule Vikram	25	10	15	10	12.6	10.2	23.53	37189	77600	40411	2.09	30215	52000	21785	1.72

* 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)			Check	% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo		Average			Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low													
Cereals																			
Paddy																			
	INM	Fourfold Technology	50	10	62	45	50	37.5	33.33	1.No. of tillers: 28 2.Length of ear head: 18 cm	1. No. of tillers:19 2. Length of ear head: 14 cm	36250	140000	103350	3.86	32250	105000	72750	3.25
Vegetables																			
Onion																			
Onion	Crop Production	Variety ALR	40	08	255	195	225	213	5.63	Weight of bulb-158gm Diameter of bulb-5.64 cm	Weight of bulb-122 gm Diameter of bulb - 5.15 cm	115691	358862	243171		128890	298282	169302	2.31
Spices & condiments																			
Garlic																			
Garlic	Crop Production	Variety Yamuna Safed (G-284)	50	0.4	72	27	62	52	19.23	Weight of bulb -70 gm Diameter of bulb - 4.1 cm No of Cloves-28	Weight of bulb-38gm Diameter of bulb - 1.9 cm No of Cloves-20	235303	809045	573742	3.43	215588	523545	307958	2.42
Cereals																			
Paddy-STCR	INM	STCR technology	30	6	51	42	45	37.5	20	No.of tillers - 13	No.of tillers - 10	26250	126000	89750	3.48	32250	105000	72750	3.25
Millets																			
Finger millet - STCR	INM	STCR technology	20	4	22	15	17.5	12.5	40	No. of ear heads - 5	No.of ear heads - 2	29125	61250	17875	2.1	25875	43750	17875	1.7
Vegetables																			
Onion-STCR	STCR technology	INM	20	4	102	90	95	70	35.71	Weight of bulb - 127gm	Weight of bulb-91gm	46000	152000	106000	3.3	42250	98000	55750	2.31

Frontline Demonstration on Nutri cereals

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

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)				
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)	
Cattle																		
	Feed management	Improved fodder variety - Gunwant	12	6000	1322 q/ha	1008 q/ha	31.15	Cost of production, Gross Income	Cost of production, Gross Income	18968	140132	121164	7.39	17284	106848	89564	6.18	
Poultry																		
	Poultry farming	Introduction of Black Australorp breed for backyard.	25	375	1.246 Kg/Bird	0.812 Kg/Bird	53.45	Cost of production, Gross Income	Cost of production, Gross Income	164	274.12	110.12	1.67	158	203	45	1.28	
Sheep & Goat																		
	Goat farming	Pure Osmanabadi Goats for higher productions and upgradation of local breeds	10	22 (20 females+2 males common)	29.66 Kg	19.32 Kg	53.52	Cost of production, Gross Income	Cost of production, Gross Income	2764	8008	5244	2.90	2968	5216	2248	1.76	

* 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)	

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
Super Grain Bag	To demonstration of Save Grain Bags to prevent store grain pests during storage	50	1. Percentage of grain damage	12 %	28%
			2. Shelf life of grain	Increase	Decrease

Frontline Demonstrations on Livestock



Backyard Poultry: Black Australorp



Goat Farming: Osmanabadi Breed



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
Vertical conveyor reaper	paddy	Merchandised Harvesting of paddy for marginal farmers	10	04	Labor (nos.)	2	12	(-)75%								
					Output (ha/day)	1.76	0.41	(+)329%								
					Cost (Rs./ha)	1450	3600	(-)59.72%			(Harvesting)	10		Rs.2150/ha		Rs.2150/ha
					Drudgery	Low	High	Very low								
T/D Multicrop Planter	Chick pea	Improved seed and fertilizer placement with Multicrop planter @Chirapali, kone,TSP)	10	04	Labor (nos.)	02	04	(-)50%								
					Output (ha/day)	1.22	0.58	(+)110%								
					Cost (Rs./ha)	1810	1960	(-)8.24%		02		02	Rs.150/ha		***Rs.150/ha	
					Drudgery	Low	High	Very low								
Spiral Separator soybean	soybean	Improved cleaning and grading in soybean	07	10	Labor (nos.)	02	05	(-)60%								
					Output (Q/day)	16.80	3.20	(+)425%								
					Cost (Rs./Q) (cleaning grading)	Rs30/Q	Rs.87/q	(-)65%			cleaning grading	03	Rs 57/Q		Rs 57/Q	
					Drudgery	Low	High	Very low								
Groundnut Decorticator	Groundnut	To study the efficiency of Groundnut Decorticator	30	70 hrs	Labor	2	5	(-)60%			03	03				
					Time	49kg/h	30kg/h	(-)63%								
					Cost	25/q	99/q	(-)74.7%						Rs.78/ql	Rs.78/ql	
					Drudgery	Low	High	Very low								
Vaibhav Sickles	Paddy	Introduction of Vaibhav Sickles	50	2 ha	Area covered by harvesting /day	0.80 ha	0.5 ha	(+)60%								
					Cost of operation Rs/ha	1500	1900	(-)21.05%						For Harvesting) Rs.500/ha	(For Harvesting) 500 Rs/Ha	
					Labor day/ha	7	11	(-)36%			(for Harvesting) 4	(for Harvesting) 4				

***Saving is small due to higher cost of implement & operation compared to traditional method. However, the output is higher with better crop stand.

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)
Vegetable seed Kit	Household food security by kitchen gardening and nutrition gardening	100	50	50	370	225	64	50	50	1100	5200	4100	3.7	900	2200	1300	1.4

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

Frontline Demonstrations on Mechanization



Soybean cleaning through community use of spiral separator



Paddy Vertical Conveyour Reper



Vaibhav Sickle



Groundnut decorticator



BBF Planter



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										
Integrated Crop Management	1	18	15	33	12	14	26	30	29	59
Total	1	18	15	33	12	14	26	30	29	59
II Horticulture										
a) Vegetable Crops										
Protective cultivation	1	5	0	5	6	4	10	11	4	15
Post Harv Mgmt	5	31	10	41	10	4	14	41	14	55
Total (a)	6	36	10	46	16	8	24	52	18	70
b) Fruits										
Cultivation of Fruit	1	0	0	0	26	2	28	26	2	28
Management of young plants/orchards	1	0	0	0	33	0	33	33	0	33
Total (b)	2	0	0	0	59	2	61	59	2	61
d) Plantation crops										
Processing and value addition	1	7	5	12	3	1	4	10	6	16
Total (d)	1	7	5	12	3	1	4	10	6	16
Grand Total (a to g)	9	43	15	58	78	11	89	121	26	147
III Soil Health and Fertility Management										
Production and use of organic inputs	3	18	2	20	200	96	296	218	98	316
Total	3	18	2	20	200	96	296	218	98	316
IV Livestock Production and Management										
V Home Science/Women empowerment										
Value addition	2	1	1	2	14	46	60	15	47	62
Income Generation Activity for Women	1	8	3	11	49	43	92	57	46	103
Total	3	9	4	13	63	89	152	72	93	165
VI Agril. Engineering										
Farm Machinery and its maintenance	1	0	0	0	28	0	28	28	0	28
Improv. Farm Machineries	2	0	0	0	41	7	48	41	7	48
Insitu Moisture Con.	2	90	36	126	16	12	28	106	48	154
Total	5	90	36	126	85	19	104	175	55	230
GRAND TOTAL	21	178	72	250	438	229	667	616	301	917

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										
Crop Diversification	1	250	120	370	75	70	145	325	190	515
Integrated Crop Management	6	0	0	0	90	84	174	90	84	174
Integrated nutrient management	3	36	26	62	60	8	68	96	34	130
Production of organic inputs	1	12	0	12	29	0	29	41	0	41
Total	11	298	146	444	254	162	416	552	308	860
II Horticulture										
a) Vegetable Crops										
Cultivation & management	6	86	116	202	58	46	104	144	162	306
Total (a)	6	86	116	202	58	46	104	144	162	306
b) Fruits										
Layout and Management of Orchards	1	0	0	0	37	12	49	37	12	49
Cultivation of Fruit	1	5	0	5	32	2	34	37	2	39
Plant propagation techniques	1	5	2	7	37	3	40	42	5	47
Total (b)	3	10	2	12	106	17	123	116	19	135
Grand Total (a to g)	9	96	118	214	164	63	227	260	181	441
III Soil Health and Fertility Management										
Integrated Nutrient Management	2	0	0	0	44	0	44	44	0	44
Production and use of organic inputs	14	466	97	563	343	36	379	809	133	942
Total	16	466	97	563	387	36	423	853	133	986
IV Livestock Production and Management										
Dairy Management	4	89	45	134	79	42	121	168	87	255
Animal Nutrition Management	2	18	13	31	40	21	61	58	34	92
Disease Management	1	22	0	22	12	6	18	34	6	40
Feed & fodder technology	1	28	12	40	8	17	25	36	29	65
Production of quality animal products	6	22	4	26	187	152	339	209	156	365
Total	14	179	74	253	326	238	564	505	312	817
V Home Science/Women empowerment										
Value addition	13	28	97	125	115	475	590	143	572	715
Women and child care	1	0	2	2	0	28	28	0	30	30
Income Generation Activity for Women	2	0	0	0	12	85	97	12	85	97
Total	16	28	99	127	127	588	715	155	687	842
VI Agril. Engineering										
Others (pl specify)										
Improv. Farm Machineries	4	0	0	0	91	46	137	91	46	137
Precision Farming	1	22	0	22	0	0	0	22	0	22
Total	5	22	0	22	91	46	137	113	46	159
X Capacity Building and Group Dynamics										
Leadership development	1	0	0	0	32	27	59	32	27	59
Total	1	0	0	0	32	27	59	32	27	59
GRAND TOTAL	72	1089	534	1623	1381	1160	2541	2470	1694	4164

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
I Crop Production										
Integrated Crop Management	1	18	15	33	12	14	26	30	29	59
Crop Diversification	1	250	120	370	75	70	145	325	190	515
Integrated Crop Management	6	0	0	0	90	84	174	90	84	174
Integrated nutrient management	3	36	26	62	60	8	68	96	34	130
Production of organic inputs	1	12	0	12	29	0	29	41	0	41
Total	12	316	161	477	266	176	442	582	337	919
II Horticulture										
a) Vegetable Crops										
Cultivation & management	6	86	116	202	58	46	104	144	162	306
Protective cultivation	1	5	0	5	6	4	10	11	4	15
Post Harv Mgmt	5	31	10	41	10	4	14	41	14	55
Total (a)	12	122	126	248	74	54	128	196	180	376
b) Fruits										
Layout and Management of Orchards	1	0	0	0	37	12	49	37	12	49
Plant propagation techniques	1	5	2	7	37	3	40	42	5	47
Cultivation of Fruit	2	5	0	5	58	4	62	63	4	67
Management of young plants/orchards	1	0	0	0	33	0	33	33	0	33
Total (b)	5	10	2	12	165	19	184	175	21	196
d) Plantation crops										
Processing and value addition	1	7	5	12	3	1	4	10	6	16
Total (d)	1	7	5	12	3	1	4	10	6	16
Grand Total (a to g)	18	139	133	272	242	74	316	381	207	588
III Soil Health and Fertility Management										
Integrated Nutrient Management	2	0	0	0	44	0	44	44	0	44
Production and use of organic inputs	17	484	99	583	543	132	675	1027	231	1258
Total	19	484	99	583	587	132	719	1071	231	1302
IV Livestock Production and Management										
Dairy Management	4	89	45	134	79	42	121	168	87	255
Animal Nutrition Management	2	18	13	31	40	21	61	58	34	92
Disease Management	1	22	0	22	12	6	18	34	6	40
Feed & fodder technology	1	28	12	40	8	17	25	36	29	65
Production of quality animal products	6	22	4	26	187	152	339	209	156	365
Total	14	179	74	253	326	238	564	505	312	817
V Home Science/Women empowerment										
Value addition	15	29	98	127	129	521	650	158	619	777
Women and child care	1	0	2	2	0	28	28	0	30	30
Income Generation Activity for Women	3	8	3	11	61	128	189	69	131	200
Total	19	37	103	140	190	677	867	227	780	1007
VI Agril. Engineering										
Improv. Farm Machineries	4	0	0	0	91	46	137	91	46	137
Precision Farming	1	22	0	22	0	0	0	22	0	22
Farm Machinery and its maintenance	1	0	0	0	28	0	28	28	0	28
Improv. Farm Machineries	2	0	0	0	41	7	48	41	7	48
Insitu Moisture Con.	2	90	36	126	16	12	28	106	48	154
Total	10	112	36	148	176	65	241	288	101	389
X Capacity Building and Group Dynamics										
Leadership development	1	0	0	0	32	27	59	32	27	59
Total	1	0	0	0	32	27	59	32	27	59
GRAND TOTAL	93	1267	606	1873	1819	1389	3208	3086	1995	5081

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		
		M	F	T	M	F	T	M	F	T
Nursery Management of Horticulture crops	3	5	4	9	45	7	52	50	11	61
Integrated farming	1	40	5	45	9	2	11	49	7	56
Seed production	1	3	4	7	14	0	14	17	4	21
Mushroom Production	3	6	29	35	15	41	56	21	70	91
Production of quality animal products	1	33	14	47	19	12	31	52	26	78
Sheep & goat rearing	1	5	0	5	30	0	30	35	0	35
Poultry production	1	17	11	28	12	7	19	29	18	47
Value addition	2	13	6	19	2	1	3	15	7	22
Soil Health Mgmt	3	42	12	54	36	11	47	78	23	101
Para extension workers	1	24	8	32	0	0	0	24	8	32
TOTAL	17	188	93	281	182	81	263	370	174	544

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		
		M	F	T	M	F	T	M	F	T
Mushroom Production	1	0	0	0	0	23	23	0	23	23
Repair and maintenance of farm machinery and implements	1	0	0	0	35	18	53	35	18	53
Value addition	1	7	2	9	1	1	2	8	3	11
Sheep & goat rearing	2	24	14	38	40	16	56	64	30	94
TOTAL	5	31	16	47	76	58	134	107	74	181

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		
		M	F	T	M	F	T	M	F	T
Nursery Management of Horticulture crops	3	5	4	9	45	7	52	50	11	61
Integrated farming	1	40	5	45	9	2	11	49	7	56
Seed production	1	3	4	7	14	0	14	17	4	21
Mushroom Production	4	6	29	35	15	64	79	21	93	114
Repair and maintenance of farm machinery and implements	1	0	0	0	35	18	53	35	18	53
Production of quality animal products	1	33	14	47	19	12	31	52	26	78
Sheep & goat rearing	3	29	14	43	70	16	86	99	30	129
Poultry production	1	17	11	28	12	7	19	29	18	47
Value addition	3	20	8	28	3	2	5	23	10	33
Soil Health Mgmt	3	42	12	54	36	11	47	78	23	101
Para extension workers	1	24	8	32	0	0	0	24	8	32
TOTAL	22	219	109	328	258	139	397	477	248	725

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		
		M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	13	189	74	263	140	67	207	329	141	470
Integrated Nutrient management	2	22	7	29	14	8	22	36	15	51
Protected cultivation technology	1	100	2	102	0	0	0	100	2	102
Improved Farm Machinery & Implements	1	26	8	34	0	0	0	26	8	34
Mangmt in farm animals	1	26	9	35	24	5	29	50	14	64
Livestock feed & fodder prodn	1	10	9	19	13	4	17	23	13	36
Value Addition	1	23	28	51	19	27	46	42	55	97
Soil and Water Con.	1	36	4	40	0	0	0	36	4	40
Total	21	432	141	573	210	111	321	642	252	894

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		
		M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	1	24	18	42	7	4	11	31	22	53
Integrated Pest Management	2	32	8	40	10	6	16	42	14	56
Integrated Nutrient management	6	179	52	231	0	0	0	179	52	231
Protected cultivation technology	1	7	3	10	5	4	9	12	7	19
Capacity building for ICT application	3	74	46	120	0	0	0	74	46	120
Horti Crop Prodn	2	40	7	47	8	3	11	48	10	58
Nursery Mgmt	3	59	23	82	20	12	32	79	35	114
Value Addition	5	66	54	120	39	45	84	105	99	204
Agro Tourism	1	18	5	23	7	2	9	25	7	32
Total	24	499	216	715	96	76	172	595	292	887

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		
		M	F	T	M	F	T	M	F	T
Productivity enhancement in field crops	14	213	92	305	147	71	218	360	163	523
Integrated Pest Management	2	32	8	40	10	6	16	42	14	56
Integrated Nutrient management	8	201	59	260	14	8	22	215	67	282
Protected cultivation technology	2	107	5	112	5	4	9	112	9	121
Capacity building for ICT application	3	74	46	120	0	0	0	74	46	120
Horti Crop Prodn	2	40	7	47	8	3	11	48	10	58
Nursery Mgmt	3	59	23	82	20	12	32	79	35	114
Value Addition	6	89	82	171	58	72	130	147	154	301
Agro Tourism	1	18	5	23	7	2	9	25	7	32
Improved Farm Machinery & Implements	1	26	8	34	0	0	0	26	8	34
Mangmt in farm animals	1	26	9	35	24	5	29	50	14	64
Livestock feed & fodder prodn	1	10	9	19	13	4	17	23	13	36
Soil and Water Con.	1	36	4	40	0	0	0	36	4	40
Total	45	931	357	1288	306	187	493	1237	544	1781

Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
Crop production and management										
Crop Diversn	1	250	120	370	75	70	145	325	190	515
Int Crop Mgmt	5	0	0	0	72	60	132	72	60	132
Int Nut Mgmt	3	58	33	91	26	16	42	84	49	133
Livestock feed & fodder prodn	1	10	9	19	13	4	17	23	13	36
Prodvtly enhc in field crops	14	213	92	305	147	71	218	360	163	523
Total	24	531	254	785	333	221	554	864	475	1339
Production and value addition										
Fruit Plants	3	25	4	29	113	19	132	138	23	161
Plantation Crop processing and value addition	1	7	5	12	3	1	4	10	6	16
Veg cultn & Mangmnt	1	37	7	44	0	0	0	37	7	44
Veg Post Harv Mgmt	5	31	10	41	10	4	14	41	14	55
Veg Prot Cult	1	5	0	5	6	4	10	11	4	15
Agro Tourism	1	18	5	23	7	2	9	25	7	32
Crop Prodn	2	40	7	47	8	3	11	48	10	58
IPM	2	32	8	40	10	6	16	42	14	56
Nursery Mgmt	3	59	23	82	20	12	32	79	35	114
Protected Cultivation Tech	1	7	3	10	5	4	9	12	7	19
Value addition	3	20	8	28	3	2	5	23	10	33
Total	23	281	80	361	185	57	242	466	137	603
Post harvest technology and value addition										
Farm machinery	-	-	-	-	-	-	-	-	-	-
Insitu Moisture Con.	1	80	40	120	16	12	28	96	52	148
Improved Farm Machinery & Implements	1	26	8	34	0	0	0	26	8	34
Protected Cultivation Tech	1	100	2	102	0	0	0	100	2	102
Soil and Water Con.	1	36	4	40	0	0	0	36	4	40
Total	4	242	54	296	16	12	28	258	66	324
Livestock and fisheries										
Animal Disease Management	1	22	0	22	12	6	18	34	6	40
Dairy Mgmt	2	70	37	107	35	21	56	105	58	163
Feed&fodder tech	1	28	12	40	8	17	25	36	29	65
Prod_quality animal products	1	22	4	26	12	0	12	34	4	38
Mangmt in farm animals	1	26	9	35	24	5	29	50	14	64
Poultry prodn	1	17	11	28	12	7	19	29	18	47
Prodn of animal product	1	33	14	47	19	12	31	52	26	78
Sheep & goat rearing	3	29	14	43	70	16	86	99	30	129
Total	11	247	101	348	192	84	276	439	185	624
Home Science										
Income Genration Activity for Women	1	2	0	2	1	39	40	3	39	42
Value addition	12	141	170	311	171	318	489	312	488	800
Mushroom Production	1	6	11	17	3	8	11	9	19	28
Total	14	149	181	330	175	365	540	324	546	870
Agricultural Extension										
Capcty building for ICT appl	3	74	46	120	0	0	0	74	46	120
Total	3	74	46	120	0	0	0	74	46	120
Soil Health and Fertility Management										
Prod use of org inputs	17	760	186	946	543	132	675	1303	318	1621
Intigrated Nutrient Management	6	179	52	231	0	0	0	179	52	231
Total	23	939	238	1177	543	132	675	1482	370	1852
GRAND TOTAL	102	2463	954	3417	1444	871	2315	3907	1825	5732

Training Programmes

- Farmers
- Farm Women
- Rural Youth
- Extension Functionaries



Award received for Best KVK

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		
		M	F	T	M	F	T	M	F	T
Crop production and management										
Seed production	1	3	4	7	14	0	14	17	4	21
Nursery Management	1	5	1	6	12	4	16	17	5	22
Total	2	8	5	13	26	4	30	34	9	43
Post harvest technology and value addition										
Value addition	3	20	8	28	3	2	5	23	10	33
Total	3	20	8	28	3	2	5	23	10	33
Livestock and fisheries										
Sheep and goat rearing	1	5	0	5	30	0	30	35	0	35
Total	1	5	0	5	30	0	30	35	0	35
Income generation activities										
Repair and maintenance of farm machinery	1	0	0	0	35	18	53	35	18	53
Total	1	0	0	0	35	18	53	35	18	53
Agricultural Extension	-	-	-	-	-	-	-	-	-	-
Grand Total	7	33	13	46	94	24	118	127	37	164

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)	3	78	0	78
Diagnostic visits	8	151	1	152
Field Day	9	212	0	212
Group discussions	5	126	21	147
KisanGhoshi	1	45	0	45
KisanMela	2	204	17	221
Exhibition	6	1436	17	1453
Scientists' visit to farmers field	22	393	21	414
Farmers' seminar/workshop	10	885	695	1580
Method Demonstrations	7	228	3	231
Celebration of important days	4	210	25	235
Exposure visits	12	393	121	514
Farmers Visit to KVK	54	1946	134	2080
Lecture Delivered	27	2638	391	3029
Total	170	8945	1446	10391

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

Details of other extension programmes:

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	02
Newspaper coverage	12
Popular articles	1
Radio Talks	7
TV Talks	0
Animal health camps (Number of animals treated)	0
Social Media (No. of platforms Used)	4
Others (pl. specify)	0
Total	26

3.6 Online activities during year 2023

S. No.	Activity Type	Mode of implementation	Title of Program	No. of Prog.	No. of Participants / Views
A	Farmers training				
1.		Online	Fruit and vegetable processing and value addition	7	79
2.		Online	Opportunities in Fruit & Vegetable Processing	1	14
3.		Online	Pre-monsoon measures for Insitu moisture conservation through modified fertidrills	1	18
4.		Online	Training on Oyster mushroom cultivation	1	28
	Total			10	139
B	Farmers scientist's interaction programme				
1.		Online	Online webinar on Opportunities in Fruit and Vegetable Processing	6	409
2.		Online	Webinar on Pulses Production Technology	1	93
3.		Online	Radio Talk on Chickpea and Wheat Production Technology	1	101
4.		Online	Phone in programme : oportunities and scope in fruit & vegetable processing	1	1
5.		Online	Online webinar on Opportunities in Fruit and Vegetable Processing for women entrepreneurs	1	11
6.		Online	Phone in program AIR Nashik	1	60
7.		Online	Integrated Management of Fruits & Vegetable in Kharif Season	1	47
8.		Online	Opportunities in Fruit & Vegetable Processing	1	8
9.		Online	Opportunities in Fruit & Vegetable Processing	1	38
10.		Online	Radio Phone Inn Program - Summer Management of Poultry	1	1200
11.		Online	Protected cultivation phone in programme	1	100
12.		Online	Pre-monsoon measures for Soil and Moisture Conservation	1	71
	Total			17	2139
E	Any other (Pl. specify) - KMA Calls				
1.		Online	farmers advisory on Mango fruit setting ,disease and pest mgmt.	1	17
2.		Online	Advisory calls to Tribal Farmers	1	20
3.		Online	Mech. Advisory calls to Tribal Farmers	1	20
4.		Online	Protected cultivation and Mech. Advisory whatsapp contents	1	33
5.		Online	Pre-monsoon measures Insitu conservation, Sowing and Mech. precision farming Protected cultivation Advisory calls	1	25
6.		Online	Advisory on Agri Mech.	1	23
7.		Online	Mech. in Tribal agriculture	2	39
8.		Online	Advisory and awareness on improved machineries	1	15
	Total			9	192
	KMA SMS				
		Online	SMS	1	2968
	Total			1	2968
1.	KMA WhatsApp	Online	Mech. Advisory whatsapp contents	2	51
2.		Online	Advisory on Agri Mech.	2	60
3.		Online	Mech. in Tribal agriculture	2	39
4.		Online	Mango, Guava Planation, Fruit & Vegetable processing & PHT	1	22
5.		Online	Advisory Messages to Tribal Farmrs	1	25
6.		Online	Advisory Messages on protected cultivation	1	23
7.		Online	Pre-monsoon measures Insitu conservation, Sowing and Mech. precision farming Protected cultivation Advisory calls	1	27
8.		Online	Advisory and awareness on improved machineries	1	60
	Total			11	307
	Staff Training				
1.		Online	Online training Program on Fruit fly: Surveillance and Management	1	1
2.		Online	Info. and Communication Tech. for Promotion of Agricultural Mech., CIAE Bhopal	1	1
	Total			2	2
	Grand Total (A+B+C+D+E)			50	5747

Critical Input Support to the Farmers



Bricketts distribution



Soil sample collection demo

Extension Activities



Hon. Governer Visit to KVK



KVK activities introduction to Hon. Governor



Exposure visits of trainee



World soil day celebration



Radio talks



NHB Workshop



Workshop on Mango

Extension Activities



EF training



Exposure Visit of farmers



Exhibition of Millets at Delhi



Agriculture Exhibition at MPKV



Exhibition at Chandwad

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
NIL						

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	
Fruits	Mango	Kesar		25789	2063120	Prepared in Kharif 2023 & will be sold during May-June 2024	
			Ratna	3721	297680		
			Sindhu	3120	249600		
		Hapus		1820	145600		
		Pairi		32	2560		
		Banganpalli		1220	97600		
		Dudhpedha		120	9600		
		Guava	L-49		1800		108000
		Licthi	Sahi		175		4375
		Jackfruit	Kappa		00		0
Ornamental plants	Areca Palm			500	25000		
Medicinal and Aromatic	Tulsi			200	6000		
Plantation	Coconut			800	120000		
Total				39297	3129135		

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers	
		Kg/Lit			
Bio Fertilizers	Yash-Rhizoiapo	10	2000	3	
	Yash- Rhizolego	5	1000	2	
	Yash-Azeto	48	9600	9	
	Yash-PSB	166.5	33300	13	
	Yash-KMB	159.5	31900	12	
	Yash-Aceto	5	1000	1	
	Yash-Azospi	59	11800	8	
	Yash-Biozinc	17	3400	4	
	Bio-fungicide	Yash-Pseudo	64	12800	9
		Yash-Bacillus	22	4400	7
Yash-Trichoplain		241	48200	28	
Bio-pesticide	Yash-Trichotriple	34	6800	5	
	Yash-Beaveria	138.5	27700	11	
	Yash-Vertim	164	32800	18	
	Yash-Pacilo	58	11600	7	
	Yash- Metarhizium	34.5	6900	3	
	Yash-Namoria	1	200	1	
	Total	1227	245400	141	

Production of livestock materials

Particulars of Live stock	Name of the animal / bird / aquatics	Name of the breed	Type of Produce	unit (no./ lit/kg)	Qty	Value (Rs.)	No. of Farmers
Dairy animals							
Others (Pl. specify)	Goat	Osmanabadi Goats	Meat (Live Weight gain)	31	790 Kg	278100/-	20
Poultry							
Duals (broiler and layer)	Poultry	Black Australorp	Chicken	480	612 Kg	165240/-	45
			Eggs	350	3750	37500/-	33
		Grampriya	Chicken	50	61 Kg	16470/-	10
			Eggs	40	3200	32000/-	10
Total				951		529310/-	118

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	Integrated farming system implemented in tribal villages by KVK	Dr. Niteen Thoke	1
Extension literature	Use of Bio-control agents for crop protection	Mr. Mangesh Vyavahare	1
	Use of Bio-Fertilizers for crop production	Mr. Mangesh Vyavahare	1
TOTAL			3

C. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
	Short Film on YouTube Channel	padgilwar paddy thresher demo	1
1.	Short Film on YouTube Channel	TSP paddy reaper Demo	1
2.	Short Film on YouTube Channel	Padgilwar Mni Thresher innovative idea with paddy thresher	1
3.	Short Film on YouTube Channel	paddy rice mill padgilwar	1
5.	Short Film on YouTube Channel	mechanization shaktiman grape mulcher	1

D. Details of Social Media Platforms Created / Used

S. No.	Type of social media platform	No of events (uploaded video/post/story etc.	Title of social media	Number of Followers/ Subscribers
1	YouTube Channel (no of video uploaded)	9-Video	YouTube	2 Subscribers
2	Facebook page/ Account (no of Post)	18 Post	Facebook	6 Followers
3	Mobile Apps	-	-	-
4	WhatsApp groups	18	WhatsApp	1937
5	Twitter Account	14 Tweets, 12 Retweets	Twitter	10 Followers

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).

... Attached as Annexure

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

Village Behedpada from Tryambakeshwar tahsil is having their *Bhajani Mandal*. Almost all the farmers participate in the *bhajans*. As per demand from the villagers, KVK provided mike and speakers to the *Bhajani mandal* with the help of donors. KVK convinced the *Bhajani mandal* members to aware other farmers about the KVK programmes, improved technology and importance of various improved technologies being implemented by the KVK during their gathering for *Bhajans*. It is very effective way to reach every farmer from the village. This platform has proved very effective for convincing the farmers for active participation of farmers in KVK programmes.

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)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
01	Tulsi	Tulsi leaves	For treating throat infection
02	Neem	Neem leaves	Neem leaves are burnt to prevent mosquitoes
03	Mahua	Mahua flowers	To treat the cough

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

A. Practicing Farmers

- a) PRA survey
- b) Problem identified from Matrix
- c) Field level observations
- d) Farmer group discussions

B. Rural Youth

- a) PRA survey
- b) Problem identified from Matrix
- c) Field level observations
- d) Farmer group discussions

C. In-service personnel

- a) Discussion with the officials and field staff
- b) As per the demand and schedule from RAMETI

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

For FLD:

- i) New variety/technology
- ii) Poor yield at farmers level
- iii) Existing cropping system

5.3. Field activities

i. Name of villages identified/adopted with block name (from which year) –

Behedpada, Tal. Tryambakeshwar (2021), Kadavaipada, Tal. Peth (2022), Hompada, Tal. Peth (2023)

ii. No. of farm families selected per village : 50 Families/ Village

iii. No. of survey/PRA conducted : 1

iv. No. of technologies taken to the adopted villages: 26

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

Four Fold Technology in Paddy, Bengalgram Cultivar Digvijay, Improved Onion Variety – ALR, NHRDF RED -3, Improved Garlic variety Yamuna Safed, STCR in Paddy, STCR in Fingermillet, STCR in Onion, Vertical conveyor reaper, Pure Goat Breed- Osmanabadi, Goats feeding concentrates, Improved Desi Breed- Black Astralop., Mushroom production, Nutritional Garden, Super Grain Bag

vi. Impact (production, income, employment, area/technological– horizontal/vertical)

vii. Constraints if any in the continued application of these improved technologies- Nil

6. LINKAGES

A. Functional linkage with different organizations

Sr.	Name of organization	Nature of Linkage
1.	Dept. of Agriculture	KVK Organized various training programmes for extension functionaries of the department in collaboration with the Department of Agriculture, ATMA programme.
2.	MPKV, Rahuri	Supply of seed material for FLD (O & P)
3.	Dr. B. S. K K Vidyapeeth, Dapoli	Supply of grafts, seedling of coconut, Sapota, etc.
4.	AIR, Nashik	Broadcasting various agricultural programmes for farmers
5.	NHRDF, Nashik	Supply of seed of latest variety of onion, garlic, and technical knowhow for establishing soil testing laboratory and training to farmers from outside states.
6.	News paper	Publicity to KVK activities, publishing the popular articles
7.	YCMOU, Nashik	Agricultural programmes through distance mode of education, financial help as & when required for the development of KVK.
8.	Dept. AH, Nashik	Data regarding Animals and training to farmers and youths
9.	NHM	Finance for establishing Hi- tech training cum demonstration projects
10.	CRIDA, Hyderabad	Source for improved technology in farm implements and machineries
11.	CIAE, Bhopal	Source for improved technology in farm implements and machineries/ Front line demonstration programmes.
12.	IIHR, Banglore	New techniques and OFT / FLD
13.	PD, Biocontrol Banglore	Bio-control agents
14.	IARI Delhi	Bio-control agents
15.	MANAGE, Hyderabad	Management training HRD, Technical Scrutaining of ACAB participants
16.	NARM, Hyderabad	Training in advance techniques for HRD, FET
17.	CPDO, Mumbai	Authentic source for traditional poultry birds
18.	NCL, Pune	For mother culture of biofertilizers
19.	Dept. Fishery	Technical information and data of fisheries
20.	Dept. of Forest	Medicinal plant
21.	FDCM, Nashik	Social forestry development
22.	NIN, Hyderabad	Human Nutrition technology
22.	NHB	Workshop, Seminars, Training, Join inspection of Subsidy scheme project , vegetable Nursery accreditation.
23.	RAMETI	For training to extension functionaries
24.	MCAER Pune	Tribal Nutrition program
25.	Bosch trust	Tribal training program
27.	Udyogwardhini Nashik	Online Training programme on fruit &Vegetable Processing
28.	Shri Guruji Seva Prkalp Nashik	Farmers Training , field & diagnostic visit
29.	ATMA, Nashik	participation in meeting, conducting training programmes and demonstration

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.)
National Mission of agriculture extension and technology	Aug 2023	ATMA	156000/-

C. Details of linkage with ATMA

a) Is ATMA implemented in your district : Yes

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

- Training to AES teams,
- AES-wise PRA survey of representative villages,
- AES-wise GAP and SWOT analysis,
- Overall preparation of SREP report

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	No of Farmers attending
01	Meetings		12	0	70
02	Research projects				
03	Training programmes		18	4	1360
04	Demonstrations		0	0	0
05	Extension Programmes				
	KisanMela		1	1	118
	Technology Week				
	Exposure visit				
	Exhibition				
	Soil health camps				
	Animal Health Campaigns				
	Others (Pl. specify)				
	Farmers Visit		7	7	285
	Lecture Delivered		4	3	272
	Farmers Seminar		3	1	50
	Workshop		1	1	112 Extension Functionaries
06	Publications				
	Video Films				
	Books				
	Book chapter				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
07	Other Activities (Pl. specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

D. Give details of programmes implemented under National Horticultural Mission

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

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
NIL					

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
NIL					

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
NIL					

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
1	CFLD Oilseed	Funding from NFSM through ATARI	49025/-	92500/-	For 2023-24 Rs.75000/- are sanctioned for 10 Ha out of which 49025 were received (-)198589 were closing Balance of 2022-23

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
NIL					

7. Convergence with other agencies and departments:

Developmental programmes viz. Demonstrations, Training programmes, diagnostic visits, lecture delivered as experts, etc arranged with line departments and NGOs viz. State Department of Agriculture, ATMA, NHB, NHRDF, Zilla Parishad, Udyogvardhini, etc.

8. Innovative Farmers Meet

Sl.No.	Particulars	Details
	Have you conducted Farm Innovators meet in your district?	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
NIL					

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

Technology Demonstrated	Feed Back
Introduction of Tractor operated pruned Grape Twine mulcher for insitu mulching	Grape being a major crop of the district & large quantum especially small farmers are engaged in cultivation. This crop has been selectively mechanized and fetched high cultivation cost. Hence, farming, socioeconomic conditions and need were assessed for the crop in selected villages. As per the felt need, the village farmers groups were actively involved in the assessment of the machine for first year. The Manufacturer was also involved in the trials to ascertain the technicalities in the operations and minor modifications if sought by the farmer to suit the local conditions. The farmers are very much satisfied with its present performance and its see its up scaling.
To access the use of urea-DAP briquette technology in pair row planting of Finger Millet	The 10 progressive farmers of Finger Millet has been selected for demonstration of pair row planting technique with use of Urea-DAP briquettes. There were 10 demonstrations has conducted at Behedpada Tal.Trambakeshwar in Kharif 2023 season on 4 ha area. The pre-seasonal training on pair row planting technique with use of Urea-DAP briquettes has conducted. The seed of improved variety Phule Nachani, bio-pesticides and bio-fertilizers has distributed among the participants. The field visits arranged for crop inspection and guidance given accordingly. The field day has celebrated at maturity stage of crop and observations of qualitative parameter recorded.
Assess of Bio fortified Red Rice in daily consumption to overcome the malnutrition for the Adolescent girl	Mal nutrition gets reduced by adopting the consumption of bio fortified red rice.
Comparisons of Gramapriya and Black Australorp poultry breeds in Backyard rearing system with local breeds	Black Australorp is phenotypically same to desi birds with higher weight gains with best meat taste & higher egg production.
Onion variety ALR	Onion variety Agri found Light Red given higher yield than local variety. Average bulb size is good. Less percentage of joint onions. Bulbs are bigger in shape with tight skin and light red colour. Higher Storage life given Good Rate in Off Season.
Garlic variety Yamuna safed	Garlic variety Yamuna safed (G-284) is attractive white colour with bold bulb size. Good market rate. Higher yield over to local variety. Resistance to disease and pests. Higher Storage life
Paddy: Fourfold Technology	The row to row and plant to plant distance maintained at 15-25cm, which helps good aeration and intercultural operation. The ash of rice husk and rice straw utilized in nursery and rice field which enhances the physical properties of soil. Green manuring of sunhemp supplied nitrogen to plants and enhances the physical properties of soil. The use of urea-DAP briquettes released nutrients slowly which fulfilled need of nutrition of plant up to growing stage
Chickpea : Variety Phule Vikram + ICM	The pods grow erected so it can be harvested by combine harvester. It is found to be resistance to wilt disease.

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

Technology Demonstrated	Feed Back
Introduction of Tractor operated pruned Grape Twine mulcher for in-situ mulching	Adjustable side discharge shall be additional facility to cater varied spacing. Cost of the machine need to be subsidies

11. Technology Week celebration during 2023: 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:

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
NIL			

B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
NIL		

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No. of participants
Maharashtra	Goat farm management	14	621
	Poultry farm management (Commercial Broiler+ Commercial Layer+Backyard)	18	789
	Dairy farm management	04	55
Total		36	1465

D. Animal health camps organized

State	Number of camps	No.of animals	No.of farmers
Maharashtra	01	188	92
Total	01	188	92

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

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

F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Maharashtra	Broad bed furrow sowing techniques in soybean in Kharif season to conserve moisture in deficit rainfall	250 ha	200
Total		250 ha	200

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
Maharashtra	-	-	1	45	9	212	-	-	6	1453	-	-

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)
Fourfold Technology in Paddy	50	68	105000	140000
Onion	40	57	298282	358862
Garlic	50	52	523545	809045
Paddy-STCR	30	48	105000	126000
Finger millet - STCR	4	51	17875	17875
Onion-STCR	20	62	98000	152000
Goat Farming	10	71	5216	8008
Vegetable seed Kit	50	69	2200	5200

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)

... Attached as Annexure

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

- Custom hiring and selective mechanization for tribal agriculture
- Black austolarp Backyard poultry for as supportive enterprise in tribal families

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 2023	1		19
Feb 2023	-		-
March 2023	1		25
April 2023	1		25
May 2023	3		3017
Jun 2023	1		27
Jul 2023			
Aug 2023	1		30
Sept 2023	2		52
Oct 2023	1		20
Nov. 2023	-		-
Dec. 2023	1		60

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
KVK, Nashik-I	Text only	-	-	-	-	12	-	12
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	-	-	-	-	12	-	12
	Total farmers Benefitted	-	-	-	-	3275	-	3275

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No	Demo Unit	Year of Est.	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Vermi-compost	2000	60x35 ft 35 x 35f		Vermin - compost	20 Tons	1.25 Lakhs	Used at KVK farm	Used at KVK farm
2	Nursery	2001	2 ha	Fruit crops	grafts	31787 No.	8 lakh	2496050	Sold in 2023
3	Apiculture	2021	0.2 ha	<i>Apis cerana</i> , <i>Apis mellifera</i>	Pollination	-	30000	Pollination purpose	Improvement in prod. & quality of produce at KVK farm & on campus training

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	
Fruits									
Mango	29.6.96	June 23	3.8	kesar,Ratna ,Sindhu	Fruits	5612	60000	187500	
Sapota	26.6.96	May 23	0.8	Kallipa	Fruits	1395	15000	56320	
Guava	30.6.96	July 23	0.8	Sardar	Fruits	17	10000		
Aonla	11.8.95	April 23	0.8	6 Var	Fruit	852	10000	23670	
Tamarind	9.7.99	May 23	0.8	Nageshwari	Fruits	113	10000	3480	
Jack fruit	5.7.2001	June 23	Border	Local Kapa	fruits	7595	20000	75950	
Coconut	2003	Round the Year	14	Banawali	Fruit	2945	100000	38400	

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

Sl. No.	Bio Products	Name of the Product	Qty (Ltr)	Amount (Rs.)		Remarks
				Cost of inputs	Gross income	
1	Bio- Fertilizers	Yash-Rhizoiaipo	10	1000	2000	Registration process completed got license for Commercial sale.
		Yash- Rhizolego	5	500	1000	
		Yash-Azeto	48	4800	9600	
		Yash-PSB	166.5	16650	33300	
		Yash-KMB	159.5	15950	31900	
		Yash-Aceto	5	500	1000	
		Yash-Azospri	59	5900	11800	
2	Bio- Fungicides	Yash-Pseudo	64	6400	12800	Registration in process.
		Yash-Bacillus	22	2200	4400	
		Yash-Trichoplain	241	24100	48200	
		Yash-Trichotriple	34	3400	6800	
		Yash-Trichoplus	0	0	0	
3	Bio- pesticides	Yash-Beaveria	138.5	13850	27700	Registration in process.
		Yash-Vertim	164	16400	32800	
		Yash-Pacilo	58	5800	11600	
		Yash- Metarhizium	34.5	3450	6900	
		Yash-Namoria	1	100	200	
Total			1227	122700	245400	

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1.	Intensive Poultry unit	Black Australorp	Chicken	480 Birds (612 Kg)	Poultry birds	165240/-	Used for FLD.
2.	Semi-intensive Goat Unit	Osmanabadi	Meat	21 Goats (472 Kg)	Pure Osmanabadi Does and Bucks	165200/-	Partly used for FLD and others are the part of Instructional farm.

E. Utilization of hostel facilities

Accommodation available (No. of beds): 35

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
January 2023	185	740	
February 2023	102	204	
March 2023	90	270	
April 2023	140	560	
May 2023	47	47	
June 2023	86	825	
July 2023	91	182	
August 2023	81	243	
September 2023	123	369	
October 2023	112	336	
November 2023	213	852	
December 2023	102	408	

F. Database management

S. No	Database target	Database created
1	Database for the Kisan Sarthi Portal	Yes
2	Training Enquiry Data	Yes
3	Website Visitor Enquiry Data	Yes

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

Amount sanction (Rs.)	Exp Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted				Qty of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programs	No. of Demo.	No. of plant materials produced	Visit by farmer (No.)		
NA								

H. Performance of Nutritional Garden at KVK farm

If Nutritional Garden developed at KVK farm/Village Level? Yes

If yes,

Nutritional Garden developed at KVK farm

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
01	Vegetable crops	08	2080
	Fruit crops	12	

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
03	Vegetable crops	10	50
	Fruit crops	02	50

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
NA									

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	Punjab National Bank	YCMOU, Nashik	930100	Finance Officer Yashwantrao Chavan Maharashtra Open University	9301000100000060 9301000100001847 9301000100002235 9301000100002244	422024014	PUNB0930100
With KVK	-	-	-	-	-	-	-

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	242.00	232.74	191.07
2	Travelling allowances			1.70
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			2.87
B	POL, repair of vehicles, tractor and Equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
	TOTAL (A)	256.18	243.77	201.48
B. Non-Recurring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)	0	0	0
4	Library (Purchase of assets like books & journals)			
	TOTAL (B)	0	0	0
C. REVOLVING FUND			35.09	27.42
GRAND TOTAL (A+B+C)		256.18	278.86	228.9

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2018 to March 2019	14.34	37.48	15.10	36.71
April 2019 to March 2020	36.71	26.83	20.1	43.44
April 2020 to March 2021	43.44	9.68	22.33	30.79
April 2021 to March, 2022	30.79	29.87	24.94	35.72
April 2022 to March 2023	35.72	27.80	24.36	39.16
April 2023 to March 2024	39.16	35.09	27.42	46.83

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
Shri. Rajram B. Patil	SMS (Agri. Engg.)	Information and Communication Technology for Promotion of Agricultural Mechanization, CIAE Bhopal	CIAE Bhopal	Online	20/06/23-22/06/23
Shri. Rajaram B. Patil	Agri. Engg.	Short Course on Using Space Technology for Agriculture Sector	GNEC, IIT, Roorkee, Noida	Offline	20/11/23-25/11/23
Shri. Rajram B. Patil	Agri. Engg.	Phule Baliraja Application Demonstration	MPKV, Rahuri	On	21/09/23-21/09/23
Dr. Niteen J. Thoke	Sr. Scientist & Head	VIII Management Development Program for Newly Recruited Senior Scientists and Heads of KVKs	NAARM Hyderabad	Offline	31/01/23-05/03/23
Shri. Hemraj M. Rajput	SMS (Horti.)	Online training Program on Fruit fly: Surveillance and Management	NIPHM, Hyderabad	Online	16/01/23-20/01/23
Shri. Hemraj M. Rajput	SMS (Horti.)	Training on 'Capacity building of agricultural extension professionals of ATARI Zone-VIII to promote agro-processing	ICAR-CIPHET, Ludhiana	Offline	07/08/2023-11/08/2023
Shri. Hemraj M. Rajput	SMS (Horti.)	Visit to G20 Exhibition at SPU Pune	SPU, Pune	Offline	22/06/23-22/06/23
Shri. Hemraj M. Rajput	SMS (Horti.)	Workshop on PhuleBaliraja App at MPKV, Rahuri	MPKV, Rahuri	Offline	19/04/23-19/04/23
Shri. Mangesh T. Vyavahare	Programme Assistant (Agri.)	Workshop on Orientation of Phule Baliraja Digital Agro Advisory Application	MPKV, Rahuri	Offline	19/04/23-19/04/23
Shri. Mangesh T. Vyavahare	Programme Assistant (Agri.)	Training of trainers on NiceSSM Phule Baliraja agro advisory platform	MPKV, Rahuri	Offline	29/05/23-29/05/23
Shri. Mangesh T. Vyavahare	Programme Assistant (Agri.)	Training of AAS Machine operation	Thermoscientific Fisher Comp., Satpur	Offline	13/07/23-13/07/23
Dr. Shyam B. Patil	SMS (Vet. Sci.)	Goat and Dairy farm study tour to Mahatma Phule Agricultural University, Rahuri, Ahmednagar	MPKV, Rahuri	Offline	20/03/23-20/03/23
Dr. Shyam B. Patil	SMS (Vet. Sci.)	Study visit to CPDO Mumbai	CPDO, Mumbai	Offline	24/07/23-25/07/23
Shri. Harshal P. Kale	Programme Assistant (Comp.)	Phule Baliraja Application Demonstration	MPKV, Rahuri	Offline	29/05/23-29/05/23

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)
Behedpada, Beze, Jategaon, Tal Tryambak Moh, Tal. Sinnar Dugaon, Tal. Nashik Ugaon, Tal. Niphad Kadwaipada Tal-Peth	217	Demonstration of improved technology wrt crops, machinery, Vegetable Nursery, Mushroom, livestock breeds, and as Integrated Farming mode	35	64941	122560

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
1.	TSP	3	FLD, OFT, Trainings, Extension Activities	118	150

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	
Horticulture Nursery for Tribal Youths as income Generating Unit	2	43	01	12	04	40,000	6,40,000	02
Promotion and Establishment of Mushroom production unit as a small enterprise	4	125	0	0	27	40,000	1,80,000	06
Promotion and Establishment of Osmanabadi Goat units as an alternative agribusiness	1	35	0	0	10	40,000	21,000 per year (Size of unit will be doubled in next year)	02

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
01	<ul style="list-style-type: none"> • Adoption of villages for Microbial based Agricultural Waste Management using Vermi compost. • Awareness programme about Swachhta. • Crop Residue Management • Demonstration of technologies on waste and wealth. • Cleaning of villages programme with farmers. • Orientation of school children on various topics like hygiene, sanitation, cleanliness. • Cleaning of offices and campus and disposal of scraps, space freed, etc. • Demonstration on recycling of agrowaste by tractor operated grape twine mulcher • Awareness programme on use of bio fertilizer in organic farming and enrichment of compost 	27	1516

ARYA- Attracting and Retaining Youth in Agriculture



Horticulture Nursery for Tribal Youths as income Generating Unit



Promotion and Establishment of Osmanabadi Goat units as an alternative agribusiness



Promotion and Establishment of Mushroom production unit as a small enterprise

Details of SAP

Sr. No	Name of KVK	Date	Activity	No of VIPs	No of Farmers	Others	Total
1.	Nashik-I	Jan-23	Awareness programme on use of bio fertilizer & bio pesticides in crop production & multiplication in field	-	20	-	20
2.	Nashik-I	Feb-23	Bioagent enriched Composting of agro-waste	-	49	-	49
3.	Nashik-I	Mar-23	Awareness programme on soil testing, use of bio fertilizer, bio pesticides in crop production & multiplication in field	-	49	-	49
4.	Nashik-I	April-23	-	-	-	-	-
5.	Nashik-I	May-23	Composting of agro-waste & enrichment with Bioagents	-	80	-	80
6.	Nashik-I	Jun-23	Composting of agro-waste & enrichment with Bioagents	-	127	-	127
7.	Nashik-I	Jul-23	Awareness & Method demonstration of Vermicompost & Waste decomposer	-	83	-	83
8.	Nashik-I	Aug-23	Awareness programme on importance of soil health card and use of bio fertilizer, bio pesticides in crop production & bio agents multiplication in field and State level natural farming workshop	3	179	-	182
9.	Nashik-I	Sept-23	Composting of agro-waste & enrichment with Bioagents	7	828	-	835
10.	Nashik-I	Oct-23	Composting of agro-waste & enrichment with Bioagents	0	14	-	14
11.	Nashik-I	Nov-23	Composting of agro-waste & enrichment with Bioagents	1	400	-	401
12.	Nashik-I	Dec-23	Composting of agro-waste & enrichment with Bioagents	2	3430	-	3432

21. Books published 2023-24

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

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

Participation in Viksit Bharat Sankalp Yatra (Rural Area):-

Duration	No of Tehsil covered	No of Villages Covered	No of Days	No of Farmers
15 th Nov to 31 st Dec 2023	08	168	47	22048

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	93	3086	1995	5081
Rural youths	22	477	248	725
Extension functionaries	45	1237	544	1781
Sponsored Training *	102	3907	1825	5732
Vocational Training *	7	127	37	164
Total	160	4800	2787	7587

* included in trainings for Farmers & farm women, Rural youths and Extension functionaries

2. Frontline demonstrations

Crops/Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	25	10	
Pulses	25	10	
Cereals	50	10	
Vegetables	90	8.4	
Other crops (Fruit)	50	2.0	1000 Mango grafts
Other crops (Fodder)	12	-	6000 seedlings
Total	252		
Livestock & Fisheries	35	-	397 Animals
Other enterprises (Mechanization)	107	8.0	
Other enterprises (Super Grain Bag)	50	-	50 units
Other enterprises (Kitchen Garden)	50	100 sqm	
Total	242		
Grand Total	494	48.4	-

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	03	50	50
Livestock	02	17	17
Various enterprises	02	45	45
Total	07	112	112
Technology Refined			
Crops	-	-	-
Livestock	-	-	-
Various enterprises	-	-	-
Total	-	-	-
Grand Total	07	112	112

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	170	10391
Other extension activities	5	26
Total	175	10417

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
KVK, Nashik-I	Text only	-	-	-	-	12	-	12
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	-	-	-	-	12	-	12
	Total farmers Benefitted	-	-	-	-	3275	-	3275

6. Seed & Planting Material Production

	Quintal/Number	Value (Rs.)
Seed (q)	0	0
Planting material (No.)	39297	3129135/-
Bio-Products (lit)	1227	245400/-
Livestock Production (No.)	511	529310/-
Fishery production (No.)	-	-

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value (Rs.)
Soil (681)	681	263600
Water (09)	9	1350
Plant	-	-
Total	690	264950

8. HRD and Publications

Sr. No.	Category	Number
1	Abstract	01
2	Workshops	10
3	Conferences	0
4	Meetings	12
5	Trainings for KVK officials	14
6	Visits of KVK officials	22
7	Book published	0
8	Training Manual	01
9	Book chapters	00
10	Booklet	00
11	Leaflets/ Folder/ Pamphlet	02
12	Research papers	00
13	Technical Bulletin	00
14	Popular article	01
15	Lead papers	00
16	Seminar papers	00
17	Extension folder	02
18	Proceedings	01
19	Award & recognition	01
20	On-going research projects	00

Annexure – I: Discipline-wise training programmes

Date	Client	Title of training Programme	Duration in days	Venue	Number of other participants			Number of SC.ST			Total number of participants		
					M	F	T	M	F	T	M	F	T
Crop Production													
10/01/23	PF	Awareness programme on production and processing of millets	1	Off	0	0	0	18	24	42	18	24	42
11/01/23	PF	Organic farming system	1	Off	12	0	12	29	0	29	41	0	41
15/02/23	PF	Awareness on importance of millets in daily diet	1	Off	250	120	370	75	70	145	325	190	515
27/02/23	PF	Bajra Production Technology	1	Off	0	0	0	25	0	25	25	0	25
18/03/23	PF	IPM in Bajra in summer season	1	Off	0	0	0	25	0	25	25	0	25
22/05/23	PF	Training on seed treatment and seed germination test for kharif crops	1	On	18	15	33	12	14	26	30	29	59
25/07/23	PF	Fourfold Technology in Paddy	1	Off	0	0	0	24	0	24	24	0	24
25/07/23	PF	Pair row plantation technique in Finger Millet	1	Off	0	0	0	24	0	24	24	0	24
12/09/23	PF	Finger Millet Production technology	1	Off	0	0	0	0	18	18	0	18	18
12/09/23	PF	Groundnut Production Technology	1	Off	0	0	0	0	28	28	0	28	28
26/09/23	PF	Importance and production technology of Millets	1	Off	36	26	62	12	8	20	48	34	82
12/12/23	PF	Paddy Production and Processing technology	1	Off	0	0	0	22	14	36	22	14	36
		Total (12)	12		316	161	477	266	176	442	582	337	919
Horticulture													
03/01/23	PF	Onion and Garlic production Technology	1	Off	0	0	0	30	0	30	30	0	30
03/01/23	PF	Onion and Garlic production Technology	1	Off	0	0	0	13	1	14	13	1	14
11/01/23	PF	Farmers training integrated management of horticultural crops	1	Off	35	6	41	0	0	0	35	6	41
16/01/23	PF	Fruit and vegetable processing and value addition	6	Online	7	5	12	3	1	4	10	6	16
13/04/23	PF	Online Training on fruits & vegetable processing and value addition	6	Online	7	3	10	1	1	2	8	4	12
23/05/23	PF	Training on layout & planning of Kitchen garden	1	Off	5	18	23	3	5	8	8	23	31
26/05/23	PF	Training on layout & planning of Kitchen garden	1	Off	4	60	64	0	35	35	4	95	99
20/06/23	PF	Mango Plantation Technology	1	On	0	0	0	26	2	28	26	2	28
12/06/23	PF	Online Training on fruits & vegetable processing and value addition	6	Online	5	1	6	1	1	2	6	2	8
08/07/23	PF	Farmers training on Fruit orchard Management	1	Off	0	0	0	37	12	49	37	12	49
17/07/23	PF	Online Training on fruits & vegetable processing and value addition	7	Online	8	4	12	2	1	3	10	5	15
21/08/23	PF	Training on Protected Cultivation	1	On	5	0	5	6	4	10	11	4	15
24/08/23	PF	Training on Mango Orchard Management	1	Off	5	0	5	32	2	34	37	2	39
28/08/23	PF	Online Training on fruits & vegetable processing and value addition	4	Online	6		6			0	6	0	6
26/09/23	PF	Training on Integrated Nutrient Management in Horticultural crops	1	Off	42	32	74	12	5	17	54	37	91
27/09/23	PF	Mango Plantation and orchard management Technology	1	On	0	0	0	33	0	33	33	0	33
22/12/23	PF	Integated pest and disease management in Mango inflorescence	1	Off	5	2	7	37	3	40	42	5	47
27/12/23	PF	Opportunities in Fruit & Vegetable Processing	1	Online	5	2	7	6	1	7	11	3	14
		Total (18)	42		139	133	272	242	74	316	381	207	588
Veterinary Sci.													
12/01/23	PF	Clean Milk Production	2	Off	0	0	0	61	47	108	61	47	108
09/02/23	PF	Remedies to minimize infertility in cows and buffaloes	2	Off	0	0	0	33	12	45	33	12	45
27/02/23	PF	Introduction of Osmanabadi goats for upgradation of local in the village	2	Off	0	0	0	38	19	57	38	19	57
12/03/23	PF	Diet Management for quality development of calf	2	Off	0	0	0	33	21	54	33	21	54

25/04/23	PF	Summer management of backyard animals	2	Off	0	0	0	38	26	64	38	26	64
29/05/23	PF	Introduction of Osmanabadi goats for upgradation of local in the village	2	Off	0	0	0	9	38	47	9	38	47
05/07/23	PF	Heat identification in cattle for successful conception	2	Off	18	0	18	21	12	33	39	12	51
13/07/23	PF	Vaccination, its importance and schedule in Bovines	2	Off	22	0	22	12	6	18	34	6	40
20/08/23	PF	Commercial Goat farming	2	Off	0	0	0	29	22	51	29	22	51
04/09/23	PF	Ornamental Duck and Lovebird rearing	2	Off	22	4	26	12	0	12	34	4	38
12/09/23	PF	Management of FMD in Cows and Buffaloes	2	Off	19	8	27	11	9	20	30	17	47
25/10/23	PF	Challenge feeding in Bovines	2	Off	18	13	31	7	0	7	25	13	38
24/11/23	PF	Milk processing techniques for increasing its shelf life	2	Off	52	37	89	14	9	23	66	46	112
16/12/23	PF	Nutritive Upgradation of Raw quality feed for Animals	2	Off	28	12	40	8	17	25	36	29	65
		Total (14)	28		179	74	253	326	238	564	505	312	817
Agril. Engineering													
22/05/23	PF	Pre-monsoon measures & mechanisation interventions for Soil and Moisture Conservation & protected cultivation	1	On	72	36	108	16	12	28	88	48	136
28/06/23	PF	Pre-monsoon measures for Insitu moisture conservation through modified fertidrills	1	Online	18	0	18	0	0	0	18	0	18
11/07/23	PF	Improved Machineries & agri mechanisation entrepreneurship fortribal agriculture	1	Off	0	0	0	24	0	24	24	0	24
31/08/23	PF	Precision micro Irrigation in Vegetable crops	1	Off	22	0	22	0	0	0	22	0	22
27/09/23	PF	Community use of farm imple,emnts and machinery for tribal areas	1	On	0	0	0	28		28	28	0	28
18/10/23	PF	Improved implements for Tribal agriculture and its custom hiring through implement Utility Centre, Spiral Separator and Paddy Harvesting	1	On	0	0	0	24	6	30	24	6	30
23/10/23	PF	Improved implements for Tribal agriculture and its Community Use and Custom hiring through implement Utility Centre for FPO or Farmers Groups	1	On	0	0	0	17	1	18	17	1	18
06/11/23	PF	Improved Farm Mahinaries for Cost & time reduction, Multi crop Planters, reapers Decorticators for cereals oilseed and pulse crops in the district	1	Off	0	0	0	19	12	31	19	12	31
07/11/23	PF	Improved Farm Mahinaries for Cost & time reduction, Multi crop Planters, reapers Decorticators for cereals oilseed and pulse crops in the district	1	Off	0	0	0	22	16	38	22	16	38
08/11/23	PF	Improved Farm Mahinaries for Cost & time reduction, Multi crop Planters, reapers Decorticators for cereals oilseed and pulse crops in the district	1	Off	0	0	0	26	18	44	26	18	44
		Total (10)	10		112	36	148	176	65	241	288	101	389
Home Science													
10/01/23	PF	Training on fingermillet processing	1	Off	0	0	0	11	52	63	11	52	63
24/01/23	PF	Training on soybean processing and its various product	1	Off	2	43	45	0	52	52	2	95	97
31/01/23	PF	Training and Importance of fingermillets in diet	1	Off	13	12	25	27	68	95	40	80	120
06/02/23	PF	Training and Processing of fingermillets like nagli laddoo, cake, upma etc.	1	Off	3	5	8	31	24	55	34	29	63
08/02/23	PF	Lectures delivered on Importance of nutri cereals in diet	1	Off	8	11	19	23	41	64	31	52	83
24/02/23	PF	Webinar on Importance of Millets in diet	1	Off	2	1	3	23	31	54	25	32	57
27/03/23	PF	Training on food and vegetable processing	1	Off	0	9	9	0	32	32	0	41	41
13/04/23	PF	Training on Karwand processing and its various product	1	Off	0	6	6	0	32	32	0	38	38
25/04/23	PF	Training on aonla processing and its product	1	Off	0	8	8	0	26	26	0	34	34
25/05/23	PF	Training on various types of papad making	1	Off	0	0	0	0	21	21	0	21	21
18/07/23	PF	Training on low cost techniques of water purification	1	Off	0	2	2	0	28	28	0	30	30
27/07/23	PF	Awareness and Training on oyster mushroom cultivation	1	On	8	3	11	49	43	92	57	46	103
14/08/23	PF	Training on millets processing	1	On	0	0	0	0	23	23	0	23	23
23/09/23	PF	Training on oyster mushroom cultivation	1	Off	0	0	0	0	39	39	0	39	39

26/09/23	PF	Training on oyster mushroom cultivation	1	Off	0	0	0	12	46	58	12	46	58
16/10/23	PF	Cultivation on Oyster mushroom,Processing of mushroom and Exposure visit	5	On	1	1	2	14	23	37	15	24	39
25/10/23	PF	Training and Processing on oyster mushroom cultivation	4	Off	0	0	0	0	49	49	0	49	49
07/11/23	PF	Processing on minor millets	2	Off	0	0	0	0	23	23	0	23	23
13/12/23	PF	Training on aonla processing and its various product	3	Off	0	2	2	0	24	24	0	26	26
		Total (19)	29		37	103	140	190	677	867	227	780	1007
Agril Extension													
22/08/23	PF	Different developmental activities of KVK	1	Off	0	0	0	32	27	59	32	27	59
		Total (1)	1		0	0	0	32	27	59	32	27	59
Soil Science													
14/02/23	PF	Natural Farming & Millet Awareness Workshop	1	On	0	0	0	53	79	132	53	79	132
15/02/23	PF	Natural Farming & Millet Awareness Workshop	1	On	0	0	0	147	17	164	147	17	164
01/06/23	PF	Use of organic inputs in crop production	1	Off	22	42	64	0	0	0	22	42	64
27/06/23	PF	Importance of soil health management and bio agents in crop production	1	On	18	2	20	0	0	0	18	2	20
19/07/23	PF	Training on nutrient management and use, multiplication of bio agents in tomato.	1	Off	47	42	89	0	0	0	47	42	89
25/07/23	PF	INM in STCR Kharif Paddy	1	Off	0	0	0	22		22	22	0	22
25/07/23	PF	INM in STCR Finger millet	1	Off	0	0	0	22		22	22	0	22
07/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	0	0	0	40	5	45	40	5	45
08/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	0	0	0	78	30	108	78	30	108
12/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	35	8	43	0	0	0	35	8	43
13/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	35	5	40	0	0	0	35	5	40
15/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	50	0	50	0	0	0	50	0	50
18/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	0	0	0	75	1	76	75	1	76
22/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	0	0	0	75	0	75	75	0	75
25/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	112	0	112	0	0	0	112	0	112
26/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	75	0	75	0	0	0	75	0	75
27/09/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	0	0	0	75	0	75	75	0	75
13/10/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	30	0	30	0	0	0	30	0	30
17/10/23	PF	Importance,methods of preparation and use of bio fertilizers, biopesticides, organic inputs for pramoting natural farming	1	Off	60	0	60	0	0	0	60	0	60
		Total (19)	19		484	99	583	587	132	719	1071	231	1302
		Grand Total (93)	141		1267	606	1873	1819	1389	3208	3086	1995	5081

Discipline-wise training programmes : Rural Youth

Date	Client	Title of training Programme	Discipline	Duration in days	Venue	Number of other participants			Number of SC.ST			Total number of participants		
						M	F	T	M	F	T	M	F	T
04/01/23	RY	Training on Integrated Nutrient Management	Agro	1	On	14	5	19	16	4	20	30	9	39
30/01/23	RY	Quality Seed production of oilseed, cereals and pulses	Agro	5	On	3	4	7	14	0	14	17	4	21
09/09/23	RY	Integrated Nutrient Management	Agro	2	On	18	4	22	11	5	16	29	9	38
03/11/23	RY	Training on use of Glyphosate for PCOs	Agro	3	On	40	5	45	9	2	11	49	7	56
30/12/23	RY	Integrated Nutrient Management	Agro	1	On	10	3	13	9	2	11	19	5	24
27/02/23	RY	Online Training on fruits & vegetable processing and value addition	Hort	6	Online	7	5	12	2	1	3	9	6	15
23/03/23	RY	Training on Hitech Horticulture Nursery Management	Hort	3	On	0	0	0	21	0	21	21	0	21
09/10/23	RY	Online Training on fruits & vegetable processing and value addition	Hort	7	Online	6	1	7			0	6	1	7
29/11/23	RY	Online Training on fruits & vegetable processing and value addition	Hort	6	Off	7	2	9	1	1	2	8	3	11
30/10/23	RY	Horticulture Nursery Management	Hort	5	On	5	1	6	12	4	16	17	5	22
05/04/23	RY	Commercial Goat farming	Vets	2	Off	24	14	38	18	8	26	42	22	64
31/05/23	RY	Beneficial modules in Animal Husbandry enterprise	Vets	3	On	33	14	47	19	12	31	52	26	78
24/08/23	RY	Commercial Goat rearing	Vets	2	Off	0	0	0	22	8	30	22	8	30
16/10/23	RY	Commercial Goat farming	Vets	5	On	5	0	5	30	0	30	35	0	35
28/10/23	RY	Scientific Poultry farming	Vets	1	On	17	11	28	12	7	19	29	18	47
01/11/23	RY	Protected Plant Propagation Techniques for Commercial Nursery	AgEg	1	On	0	3	3	12	3	15	12	6	18
06/11/23	RY	Custom Hiring Enterprises through Improved Machineries for Multi crop Planters cum Ferti drill, Harvesting of cereals oilseed and pulse crops	AgEg	4	Off	0		0	35	18	53	35	18	53
17/01/23	RY	Training on Oyster Mushroom Cultivation and its various products	Hsci	3	On	0	0	0	12	28	40	12	28	40
14/01/23	RY	Training on Oyster mushroom cultivation	Hsci	1	Off	0	0	0	0	23	23	0	23	23
07/02/23	RY	Training on Oyster mushroom cultivation	Hsci	1	On	0	18	18	0	5	5	0	23	23
11/04/23	RY	Training on Oyster mushroom cultivation	Hsci	1	Online	6	11	17	3	8	11	9	19	28
14/10/23	RY	Marketing strategies for agriculture produce	AgEx	1	On	24	8	32	0	0	0	24	8	32
		Total (22)		64		219	109	328	258	139	397	477	248	725

Discipline-wise training programmes : Extension Functionaries

Date	Client	Title of training Programme	Discipline	Duration in days	Venue	Number of other participants			Number of SC.ST			Total number of participants		
						M	F	T	M	F	T	M	F	T
20/02/23	EF	Fodder Production Technology	Agro	1	On	12	4	16	3	2	5	15	6	21
21/03/23	EF	Production technology of Paddy	Agro	1	On	17	0	17	12	0	12	29	0	29
18/04/23	EF	Training on technological gaps in production of crops and use of extension tools	Agro	2	On	15	2	17	14	3	17	29	5	34
03/05/23	EF	Production technology of Minor Millets	Agro	1	On	8	5	13	18	7	25	26	12	38
08/05/23	EF	Production technology of Minor Millets	Agro	1	On	14	3	17	15	6	21	29	9	38
11/05/23	EF	Production technology of Minor Millets	Agro	1	On	24	3	27	6	3	9	30	6	36
17/05/23	EF	Production technology of Major Millets	Agro	1	On	15	2	17	14	4	18	29	6	35
31/05/23	EF	Paddy Production technology	Agro	1	On	6	4	10	21	8	29	27	12	39
12/06/23	EF	Soybean Production Technology	Agro	1	On	6	11	17	6	4	10	12	15	27
19/06/23	EF	Pulses Production Technology	Agro	1	On	13	1	14	6	2	8	19	3	22
27/06/23	EF	Major Millet Production Technology	Agro	1	On	5	28	33	0	9	9	5	37	42
20/07/23	EF	Importance and production technology of Millets	Agro	1	Off	24	18	42	7	4	11	31	22	53
09/08/23	EF	Fodder Production Technology	Agro	1	On	10	9	19	13	4	17	23	13	36
04/09/23	EF	Wheat and Chickpea Production Technology	Agro	1	On	10	3	13	11	6	17	21	9	30
15/09/23	EF	Integrated Weed Management	Agro	1	On	12	3	15	10	5	15	22	8	30
09/10/23	EF	Key production technologies for summer crops like Soybean, Bajra and Maize	Agro	1	On	9	0	9	10	2	12	19	2	21
07/11/23	EF	Chickpea production technology	Agro	1	On	45	12	57	8	14	22	53	26	79
10/01/23	EF	Commercial Horticulture Nursery management	Hort	1	Off	17	5	22	8	3	11	25	8	33
08/02/23	EF	Training on Horticulture Nursery and HDP Management	Hort	1	Off	21	12	33	7	8	15	28	20	48
13/02/23	EF	Training on Scope and importance of Agro-Tourism with Horticulture Nursery and plantation.	Hort	1	Off	18	5	23	7	2	9	25	7	32
13/07/23	EF	Fruit orchard plantation and management technology	Hort	1	Off	22	2	24	5	2	7	27	4	31
22/08/23	EF	Training on Protected Cultivation	Hort	1	Off	7	3	10	5	4	9	12	7	19
13/09/23	EF	Tomato Production Technology Under Cropsap	Hort	1	Off	12	6	18	2	3	5	14	9	23
15/09/23	EF	Tomato Production Technology Under Cropsap	Hort	1	Off	20	2	22	8	3	11	28	5	33
20/09/23	EF	Rabi/Summer Vegetable Production Technology	Hort	1	Off	18	5	23	3	1	4	21	6	27
22/09/23	EF	Vegetable Nursery Management	Hort	1	Off	21	6	27	5	1	6	26	7	33
09/06/23	EF	Beneficial modules in Animal Husbandry enterprise	Vets	2	On	26	9	35	24	5	29	50	14	64
24/05/23	EF	Pre-monsoon measures & mechanisation interventions for Soil and Moisture Conservation	AgEg	1	On	36	4	40	0	0	0	36	4	40
10/07/23	EF	Improved Machineries for Farm Mechanisation for District Agricultural Needs	AgEg	1	On	26	8	34	0	0	0	26	8	34
15/12/23	EF	Protected Cultivation selection and its standards	AgEg	1	On	100	2	102	0	0	0	100	2	102
03/05/23	EF	Processing of Minor millets after Harvesting	Hsci	1	Off	19	11	30	5	3	8	24	14	38
09/05/23	EF	Processing of Minor millets after Harvesting	Hsci	1	Off	12	11	23	13	4	17	25	15	40
13/05/23	EF	Processing of Minor millets after Harvesting	Hsci	1	Off	9	10	19	11	8	19	20	18	38
16/05/23	EF	Processing of Major millets after Harvesting	Hsci	1	Off	12	14	26	9	14	23	21	28	49
20/06/23	EF	Training on Oyster mushroom cultivation	Hsci	1	On	23	28	51	19	27	46	42	55	97

20/07/23	EF	Processing of millets after harvesting	Hsci	1	Off	14	8	22	1	16	17	15	24	39
17/01/23	EF	Extension Methods for Transfer of Technology	AgEx	1	Off	28	12	40	0	0	0	28	12	40
16/05/23	EF	PRA techniques	AgEx	1	Off	24	16	40	0	0	0	24	16	40
03/08/23	EF	Use of different tools of Agril. extension, different communication models in Agril. Extension	AgEx	1	Off	22	18	40	0	0	0	22	18	40
02/01/23	EF	Soil Health Management & Use of bio fertilizers in crop production	SSci	1	Off	39	8	47	0	0	0	39	8	47
19/01/23	EF	Soil Health Management	SSci	1	Off	19	13	32	0	0	0	19	13	32
24/04/23	EF	Reclamation of saline and sodic soil	SSci	1	Off	28	12	40	0	0	0	28	12	40
26/04/23	EF	Reclamation of saline and sodic soil	SSci	1	Off	33	8	41	0	0	0	33	8	41
28/04/23	EF	Reclamation of saline and sodic soil	SSci	1	Off	34	6	40	0	0	0	34	6	40
10/06/23	EF	Importance of soil health management and bio agents in crop production	SSci	1	Off	26	5	31	0	0	0	26	5	31
		Total (45)		47		931	357	1288	306	187	493	1237	544	1781

Economic Empowerment of Tribal Families through Black Australorp Backyard Poultry

Background

The poultry industry in India has registered a phenomenal growth in the last four decades, making it one of the world leaders in poultry production. However, the development of organized poultry has masked the contribution of backyard poultry or household poultry in the rural sector. Backyard poultry is significantly contributing to the nutritional and livelihood security of the rural poor.

Protein deficiency is a common problem in the diets of rural people, as their diets are predominantly based on cereals, which contain high energy and comparatively low protein. By adopting rural poultry farming, we can help to reduce the incidence of protein hunger in rural populations. Backyard poultry farming is more beneficial to small, marginal farmers, landless laborers, tribals, and backward class people.

Backyard poultry farming can generate petty cash for household expenses in addition to providing a balanced diet with minimal inputs available in rural areas. Feeding backyard poultry is made easy by using household wastes, farm products, green vegetation, waste grains, and insects in the natural environment.

The eggs and meat of birds reared in backyard farming fetch a higher premium due to high consumer acceptability, even in urban areas, despite the availability of plenty of eggs and poultry meat from commercial units. In addition to providing a stable supply of high-quality animal food, backyard poultry production promotes income opportunities for the weaker sections of society in rural areas. Backyard farming will certainly improve the economic status of a majority of rural tribal families from lower socio-economic groups in tribal areas.

Problem Identification

The major hurdle to the success of backyard poultry was observed by KVK to be the high initial mortality rate of 50-60%, which was attributed to improper care, lack of vaccination, and feed management at the initial stages of growth at the farmers' doorsteps. To address these problems, KVK developed an innovative strategy to supply pre-grown, vaccinated, and well-maintained healthy chicks to growers

Intervention

Backyard poultry is a traditional livelihood enterprise for small, marginal and landless farmers in the tribal area. For years, families in India have kept local birds in a free-range system, with almost no investment in food or shelter. The birds relied on nature for everything. KVK planned to introduce improved varieties like Black Australorp to this system without forcing tribals to invest more. Black Australorp is an improved variety with good resistance that can easily adapt to the backyard system and can provide two to three times more returns than the local variety in the same rearing conditions in the form of meat and eggs. These returns will play a major role in meeting the routine financial as well as dietary protein requirements of rural and tribal populations. Frontline demonstrations were planned for self-help women's groups in selected villages.

To implement the activity successfully, KVK studied the constraints faced by various development departments and planned a procedure to overcome them. KVK started rearing day-old chicks on its demonstration farm for the first 21 days. During this critical nursery period, KVK implemented all the necessary standard brooding procedures to get sturdy birds. The necessary vaccinations were also completed on the KVK farm during this time. Only these initially hardened birds were distributed to rural and tribal populations for adoption.

Objectives

- Provide subsidiary business opportunities to rural and tribal populations under integrated farming systems.
- Train rural youths in poultry farming for entrepreneurship development.
- Provide supplementary nutrition to malnourished tribal families.

Methodology

Krishi Vigyan Kendra (KVK), Yashwantrao Chavan Maharashtra Open University Nashik, has taken up backyard poultry as a subsidiary occupation for the tribals. Nowadays, low-input technology birds such as Black Australorp are available in poultry, which thrive well under semi-intensive management systems. These birds are phenotypically similar to desi birds. Additionally, they produce more eggs and grow at a much faster rate than desi birds.

Initially, Vanaraja, Giriraja, and Black Australorp breeds were compared to the local breed. During the experimentation, it was revealed that Black Australorp is more suitable for the tribal and other rural areas of Nashik district. As a result, KVK decided to promote the Black Australorp breed in the tribal region.

KVK has implemented an innovative approach to reduce the problem of mortality in the field by demonstrating the supply of 3 to 4-week-old grown Black Australorp chicks to rural tribal populations. These birds were provided directly or through government agencies such as the Central Poultry Development Organization (CPDO), Mumbai, after being vaccinated against Marek's and Newcastle diseases.

This resulted in a higher survivability of up to 98% under field conditions. In addition, farmers were advised to deworm the birds on a regular basis. These demonstrations were well-supported by specially designed training programs. KVK's training programs included chick rearing practices, vaccination methods, deworming, compound feed preparation and storage, and hatching eggs with local hens for mass multiplication at the village level.

Characteristics of Black Australorp birds in comparison with other breeds : Considering the following characteristics, Kendra decided to promote the Black Australorp breed as a need-based intervention to address the problems with local fowls and conducted demonstrations to enhance backyard poultry enterprise.

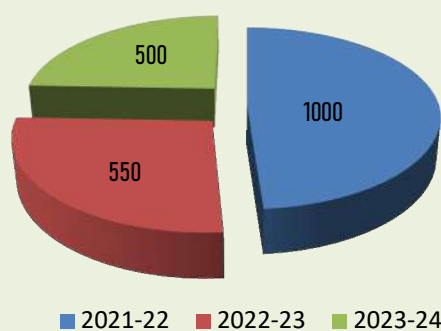


Comparative advantage of Black Australorp breed

Sr. No.	Particulars	Giriraja	Vanaraja	Black Australorp	Local
1.	Weight of Chicks (Day old) - gm	45-48	45-46	45-50	30-40
2.	Twelve week body weight - gm (Variable by feeding & rearing pattern)	1200-1800	1200-1700	1200-1850	500-1000
3.	Survivability at 8 weeks (%)	95-98	95-96	97-99	80-90
4.	Age at Sexual maturity (days)	166	170	165	180
5.	Egg production (annual)	130-170	120-150	130-180	50-70
6.	Egg weight - gm	55-60	50-55	55-60	45-50
7.	Hatchability (%)	82-87	80-85	85-88	80-85

Spread of Technology for Demonstration & Breed up-gradation

Krishi Vigyan Kendra (KVK) intervened to improve this enterprise by conducting training programs. More emphasis was placed on the Black Australorp breed and the upgrading of the local breed with Black Australorp in the backyard rearing system. KVK has implemented the program in different areas of Nashik district.



No. of Birds Provided to Tribal Families

Results

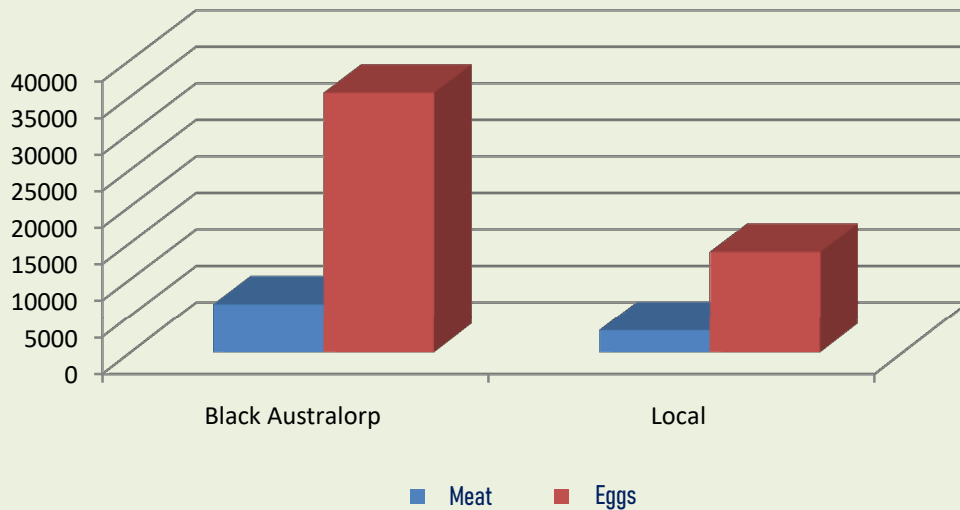
It was observed that the average weight of a Black Australorp bird at 3 month age was 1314.14 gm compared to local bird as 597.95 gm. Similarly, eggs production also shown significant results where a Black Australorp produced 142 eggs per year compared to local bird as 55 eggs per year.



Economic Impact

Average size of flock per family was 25 birds. The economics per family is shown under

Sr. No.	Particulars	Black Australorp Income (Rs.)	Local Income (Rs.)
1.	Meat	6571	2990
2.	Eggs	35500	13750



Comparative income generation out of Backyard Poultry by each family

Outcome

Backyard poultry, when demonstrated to the rural masses, has resulted in subsidiary additional income for rural households. The unproductive human power of the rural population has been utilized in a productive manner. To amplify this assumption, it has been calculated that a backyard poultry unit of 25-30 birds can generate employment of 40-50 man-days. The nutritional aspects of the family are satisfied with the consumption of eggs and meat. The SHG members involved got an opportunity to plan and enhance their management capacity with confidence.

The Zilla Parishad Nashik also honored KVK for bringing 11 undernourished children to a normal weight as a result of the poultry project implementation in its CDPO Trimbakeshwar pocket.



Agriculture Mechanization

...Making Tribal Agriculture efficient

Background

Nashik district being in the agro climatically transition tract, has variety of crops in its geographical stretch of fifteen tahsils with fruits, vegetables, oilseeds and pulses & cereal crops. The district accommodates large agriculture dependant populace & the average size of land holdings is declining. The eastern part is with a plain tract, light soils & hard pan beneath receives meagre average 700mm of scanty rainfall. The western part which is hilly tract, however receives on an average 1200mm extended rainfall and nurtures paddy based cropping system with tribal agricultural livelihood. Tribal livelihoods in the Nashik district have been characterized with the undulated patchy lands, uncertain irrigation facilities with crops such as paddy as main crops, finger millets in Kharif & wheat, chickpea in rabi on the residual moisture or protective irrigations.

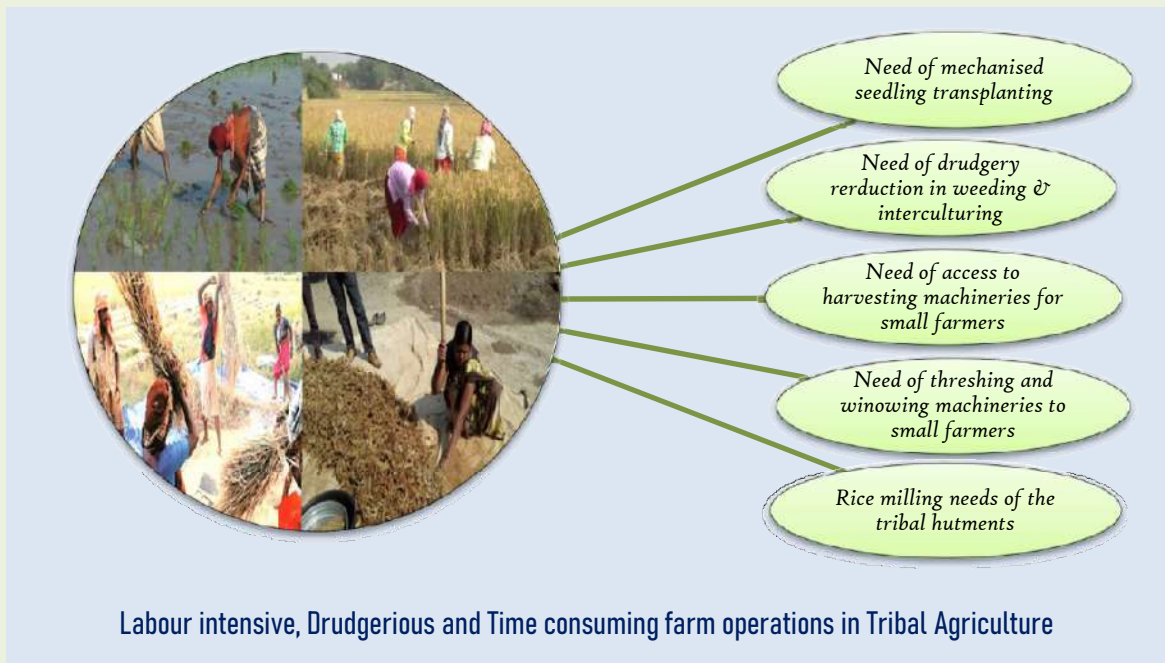
Issues of poor crop economics

- ❑ Tribal agriculture in Nashik district has been family centric small scale farm enterprises & lacks economy of scale. Perceptions that agriculture is an economically unviable proposition are more relevant especially for tribal agriculture resulting in distress migrations from rural to urban areas in the district.
- ❑ Paddy being the main kharif and assured crop, paddy productivity and profitability play important role in tribal economy. Paddy productivity and profitability has remained low and uncertain due to many factors. The crop operations like sowing, inter-cultivation, harvesting, threshing, post harvest handling in paddy are with the high drudgery level, labour intensive and time consuming & thereby undermining the economics of the crops.
- ❑ In addition to the adopting scientific approaches in crop management, use of appropriate cost and time saving, efficient equipments & machineries play important role in improving crop economics. Also, its up-scaling over the wider and deeper areas is need of the hour.
- ❑ Due to the limitations of varied topographical situations, shifting cropping patterns and poor socioeconomic conditions in the tribal areas, use of modern high capacity machineries is very low. It is necessary address crop wise selective operations along with appropriate sharing methods for wider access to small farmers.
- ❑ Approaches and strategies like, targeting on priority the selective operations with appropriate machineries and tools, ownership & service delivery through self sustainable system would be appropriate strategy.

Plan, Implement and Support

Need of Selective mechanisation with socially embedded sharing service

It is experienced that, commercially available high capacity mechanisations in paddy are unable to serve the tribal agriculture due to various limitations. Learning from the experiences for years down the line from consistent efforts by individuals, institutions & other important stake holders like KVK, State Depts, farmers etc, it is quite evident that it is not practicable to adopt a 'one-size-fits-all' approach in this poorly organised, less equipped diversified environment in the tribal area in the district. Efforts of farm mechanisation in such environment need to be selective one with socially embedded service delivery system



Capacity building of the Farmers, Agripreneurs and Extension Functionaries

- ✓ KVK has been working closely with Universities and manufactures since last eight years in addressing the issues of farm mechanisation wider numbers of crops and issues with resource sharing on technologies from the different institutions many times helped in faster feedbacks.
- ✓ These institutions include; CIAE, Bhopal, AICRP on FIM, MPKV Rahuri, Innovative Farmers, Farmer groups, potential Custom hiring Technopreneurs nurtured by KVK, Village level self help groups, private manufacturers with the promising solutions.
- ✓ KVK served as a resource centre for formal and informal training cum guidance on availability of technologies, sourcing of machineries & manufacturers.
- ✓ KVK simultaneously through it's through its extension activities hunted the appropriate and best fit solutions in the tribal situations.
- ✓ KVK advised different sharing and service strategies for various small tools & machineries for self sustenance and accelerating mechanisation.
- ✓ Off late, these mechanisation activities are now being supported by RKVY by the state dept through village level groups in the district.

Output & Outcome

Paddy being the main kharif and assured crop, however, productivity and profitability has remained low and uncertain due to many factors. The crop operations are with the high drudgery level, labour intensive and time consuming & thereby undermining the economics of the crops.

Crop operations in paddy right from sowing to harvesting and primary processing were targeted for selective mechanisation suiting to tribal hutments ecosystem.

Targeted farm operations and KVK support	Outcome, Farmers Feedback and Further strategies for up scaling in Tribal areas
<ul style="list-style-type: none"> Paddy seedling transplanters. Field trials. 	<ul style="list-style-type: none"> Slow Adoption due to, prerequisite of mat type seedlings raising and skills during operations, Relatively higher cost of machine for Tribal poor Small patchy land holding restricting the adoption. Local service providers have now active role in its promotion
<ul style="list-style-type: none"> Cono weeders in paddy interculturing Drudgery reduction 	<ul style="list-style-type: none"> Reduced the drudgery & Increased speed of operation to three fold. Easy sourcing made available from local manufacturer KVK demonstrated cono weeders for tribal groups. Advised community use of the sickles.
<ul style="list-style-type: none"> Paddy harvesting with serrated sickles Drudgery reduction 	<ul style="list-style-type: none"> Self sharpening sickles Easy sourcing made available from local manufacturer KVK demonstrated paddy harvesting sickles for tribal groups. Advised community use of the sickles by farm women.
<ul style="list-style-type: none"> Paddy Harvesting with Vertical conveyor reaper of small farmers Good Selective mechanisation 	<ul style="list-style-type: none"> saving the labour by 80%, time by 51% & cost of operation 60% with the timely operations, entrepreneur earn on an average of Rs.15,000 to Rs.25,000 per year per unit Custom hiring services in the villages by the tribal youth group in village Chirapali, Tal Trimbak. Channelized 18 units through State Dept for up scaling.
<ul style="list-style-type: none"> Mini self propelled Paddy threshers cum winnower Multi crop use being Tried 	<ul style="list-style-type: none"> Tried for small farmers with poor access. Speed of operation is satisfactory. Work drudgery for Women reduced substantially, particularly for groups with poor accessibility to machineries. Multiple crop threshing for small farmers and patchy land. Alternatively mini thresher was tried for finger millet and bajra too for small farmers.
<ul style="list-style-type: none"> Mini rice mills to meet the needs of Tribal hutments House hold processing and value addition 	<ul style="list-style-type: none"> Mini rice mill Milling % :72%, Commercial hullers milling%: 56%, Increase in milling % :16 % with Capacity 100-150 kg per hr Preferred acceptability as low polish rice. Avenue for Village level enterprise Custom hiring services in the villages by the potential tribal youth group in village Chirapali, Tal Trimbak. Channelized units through State Dept for up scaling. Proposed in adopted villages for better access.

Impact

It is experienced that, commercially available high capacity mechanisations in paddy are unable to serve the tribal agriculture due to various limitations. Efforts of farm mechanisation in such environment need to be selective one with socially synchronous services

- ❑ Efforts were made with the help of universities and alternate manufacturer with different design of Paddy seedling transplanters have already started in coordination with the state department. The results are encouraging and are likely to be included in the list.
- ❑ Harvesting of the paddy has been the most laborious and narrow time slot operation in the tribal area. With the introduction of mechanised harvesting with walk behind type reapers and its visible impact, state department has channelized through State Dept for up scaling custom hiring services in the villages by the tribal youth group. KVK also proposed additional units in adopted villages for better access.
- ❑ Resource poor tribal hutments had poor access to threshing machineries; Hence, KVK introduced Mini self propelled Paddy threshers cum winnower. Even though the success in the same was limited, it was alternatively found useful for finger millet and bajra too for small farmers.
- ❑ Poor milling percentage from commercial hullers in paddy has been the major factor that adversely affects the crop economics. Introduction of Mini Rice Mill with better milling percentage and market linkage for low polish rice. Twelve such units have been channelized through State Dept for up scaling.
- ❑ Tribal groups are now demanding household Mini Rice Mills, rice Transplanters to establish village level enterprises.





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