INTRODUCTION

Krishi Vigyan Kendra has been sanctioned to Satpuda Education Society, Jalgaon Jamod, Buldana by Indian Council of Agriculture Research, New Delhi vide letter No. 3-4/94-KVK-AEII dated 19.10.1994 for catering need based trainings to Practicing Farmers, Rural Youth and In-service Extension Functionaries, on-farm testing and Front Line Demonstration of different crops, which are grown in Buldana District.

KVK Jalgaon Jamod falls in Central Maharashtra Plateau Zone having annual rainfall 750 to 900 mm. Buldana district is located at the latitude: 19.51^0 to 21.170 North, Longitude 75.57^0 to 76.49^0 and situated 305m above mean sea level.

Most of the area of Buldana district comes under black cotton soils. The major kharif crops of this district are Cotton, Soybean, Pigeon Pea, Greengram, Blackgram and rabi crops are Bengalgram, Wheat, Onion and having soybean and cotton based cropping pattern. In fruit crops Citrus, Banana, Custard Apple, Guava are major in district.

The present Annual Progress Report of KVK is compiled for the period from January 2022 to December 2022. The report includes various activities conducted by KVK under OFT's, FLD's, Training Programmes and Extension Activities under different disciplines and are compiled with success stories herewith to submit to ICAR-ATARI, Pune.

Jalgaon Jamod
Date:- 05.02.2024

(Vikas G. Jadhao)
Sr. Scientist & Head
KVK Buldana-I (M.S.)

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	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra, Jalgaon Jamod, Dist: Buldana (M.S.) 443402	07266 - 221620	--	kvkbuldana@ gmail.com	www.kvkbuldana.com

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

Address	Telephone		E mail	Website address
	Office	FAX		
Satpuda Education Society, Jalgaon Jamod, Dist: Buldana (M.S.) 443402	07266 - 221620	--	kvkbuldana@ gmail.com sesjj2015@ gmail.com	--

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Vikas G. Jadhao	--	9423338595	kvkbuldana@gmail.com

1.4. Year of sanction: October 1994

1.5. Staff Position (as on December, 2023)

Sl. No.	Sanctioned post	Name of the incumbent	Mobile No	Discipline	If Permanent, Please indicate		Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs./month)
					Current Pay Matrix	Current Pay		
1	Sr. Scientist and Head	Vikas G. Jadhao	9423338595	Agril. Engg.	131400-217100	143600	28.11.18	Permanent
2	Subject Matter Specialist	Anil T. Gabhane	9527568788	Plant Protection	56100 – 177500	107500	27.06.95	Permanent
3	Subject Matter Specialist	Shyamsunder A. Borde	9850470123	Extension Education	56100 – 177500	87400	25.02.05	Permanent
4	Subject Matter Specialist	Sanjay M. Umale	9404710228	Agronomy	56100 – 177500	84900	19.06.06	Permanent
5	Subject Matter Specialist	Dr. Vinod S. Janotkar	9822728287	Vet Science	56100 – 177500	80000	18.12.08	Permanent
6	Subject Matter Specialist	Shashank P. Datey	9975019962	Horticulture	56100 – 177500	77700	08.07.09	Permanent
7	Subject Matter Specialist	Nitin P. Talokar	9404424501	Agril. Engg.	56100 – 177500	73200	08.03.11	Permanent
8	Programme Assistant (HS)	Vacant						
9	Computer Programmer	Yogesh R. Wakekar	9604357100	Computer	35400 - 112400	64100	19.02.02	Permanent
10	Farm Manager	Samadhan J. Bagade	9423266281	--	35400 - 112400	74300	17.06.95	Permanent
11	Assistant	Pradip E. Raut	9921860995	--	35400 – 112400	64100	10.07.95	Permanent
12	Stenographer	Vacant						
13	Driver 1	Mangesh S. Verulkar	9689877007	--	21700-69100	23800	13.11.18	Permanent
14	Driver 2	Vacant						
15	Supporting staff1	Ramesh T. Wankhade	9503629927	--	1800-56900	32400	01.08.96	Permanent
16	Supporting staff2	Ab. Samir Ab. Sadik Deshmukh	8600591228	--	1800-56900	19700	13.11.18	Permanent

1.6. Total land with KVK : 20.59 ha

S. No.	Item	Area (ha)
1.	Under Buildings	1.00
2.	Under Demonstration Units	0.40
3.	Under Crops	13.82
4.	Horticulture	4.97
5.	Others	0.40
	Total	20.59

1.7 Infrastructural Development:

A) Buildings

S. N.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	26.05.03	549.90	3407729/-	--	--	--
2.	Farmers Hostel	ICAR	31.03.05	304.77	1739490/-	--	--	--
3.	Staff Quarters (6)	ICAR	31.03.07	377.64	3197870/-	--	--	--
4.	Demonstration Units (2)	ICAR	31.03.06	160.00	421335/-	--	--	--
5	Fencing	ICAR	31.03.06	2018 rmt.	486000/-	--	--	
6	Rain Water harvesting structure	ICAR	31.03.07	--	839665/-	---	--	--
7	Shed net house	NHM	30.06.09	525.00	212435/-	--	--	--
8	Polytunnel	NHM	30.06.09	213.00				
9	Vermicompost Unit	Agril. Dept.	2008	80.00	Completed	--	--	--
10	Threshing floor	ICAR	31.03.11	27.00	100050/-			
11	Farm godown	ICAR	31.03.11	67.66	500000/-			
12	Medicinal Nursery (Shadenet house	NHM	30.03.13	525	400000/-	--	--	--
13	Minor millets processing unit	Agril. Dept.	31.03.13	660	400000/-	--	--	--
14	Soil and water testing lab	ICAR	2004-05	675	675948/-	--	--	--
15	Mobile Soil Testing Van	Manav Vikas Mission	2012-13	--	1814104/-	--	--	--
15	Mini soil testing Kit	ICAR	2012-13	--	80000/-	--	--	--
16	Solar Panel	RF	2017-18	10 KW	738359/-	--	--	--

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Running	Present status
Motorcycle	Jan. 1995	40128/-	Closed	Not in working condition
Tractor (Massey Ferguson) procured under RKVY with implements such as BBF planter, Rotavator, Seed Drill,	Feb. 2012	700000/-	5249 hrs.	Working
Tractor (John Deer) procured through ICAR fund	Mar.2012	710000/-	4871 hrs	Working
Mobile Soil Testing Van Under Manav Vikas Programme	Mar. 2012	3500000/-	7926 km	Not in working condition
Jeep (Mahindra Bolero)	Nov. 2019	796500/-	71300 km	Working

C) Equipments & AV aids

Name of the equipment	Year of purchase	Quantity	Cost (Rs.)	Present status
Equipments				
Telephone	13.07.1995	01	2000.00	Working condition
Typewriter	19.08.95	01	9740.00	Not in Working condition
OHP with carrying case	30.12.95	01	7119.00	Working condition
Slide Projector with liner tray	30.12.95	01	15302.00	Working condition
Screen	30.12.95	02	2598.00	Not in Working condition
Camera	30.03.96	01	1695.00	Not in Working condition
Home Science utensils	95-96, 96-97	Lumsum	6662.00	Working condition
Refrigerator	28.03.96	01	12900.00	Not in Working condition
Mixure	13.03.95	01	2275.00	Working condition
Oven	13.03.96	01	2175.00	Working condition
Cooker	27.03.96	01	1200.00	Working condition
Sewing machine	30.11.95	01	3093.00	Working condition
Hipro Gin Machine	2006-07	01	59280.00	Working condition
Generator	17.02.05	01	62200.00	Working condition
Inverter set	19.02.05	01	12781.00	Working condition
STL equipment & acc.	24.03.05	Lumsum	820153.00	Working condition
LPG connection (STL)	11.02.05	02	2740.00	Working condition
Refrigerator (STL)	08.02.05	01	15000.00	Working condition
Software (STL)	30.03.05		22040.00	Working condition
Computer with printer	23.03.06	02	99970.00	Working condition
LCD projector	Mar 06	01	77500.00	Working condition
TV	Feb 06	01	22100.00	Working condition
Xerox Machine	Mar 08	01	118800.0	Working condition
Laptop Comp.	Mar 08	01	31200.00	Working condition
Office almirah	1995-96	13	67300.00	Working condition
Office table	1995-96	18	44754.00	5 are not in working condition
Stool	19.08.95	06	1350.00	Not in Working condition
Chairs	28.02.95, 11.03.96	73	59870.00	40 Not in Working condition
Water cooler	Mar 06	02	27150.00	Working condition
Crates	28.02.95	06	2244.00	Not in Working condition

Trolley	28.02.95, 29.03.96	02	3200.00	Not in Working condition
Office utensils	05.08.95	Set	1417.00	Not in Working condition
Fan	19.09.95,1997	07	7275.00	4 Not in Working condition
Brief case	31.12.95	01	679.00	Not in Working condition
Lecture stand	30.03.96	01	2715.00	Working condition
Tube light	12.03.96	03	570.00	Not in Working condition
Library cases	11.03.96, 27.03.01	04	12400.00	Working condition
FH bed, bedding & Utensils 4 rooms	Mar 06	08	35504.00	Working condition
Training cum conference hall furni.	Mar 06		182045.00	Working condition
Iron Rack (sericulture)	1995-96	04	3556.00	Working condition
Drip irrigation set	29-03-95	1 set	7023.00	Not in Working condition
Wooden hoe	19.10.95	1	150.00	Not in Working condition
Secator	30.11.95	10	1200.00	Not in Working condition
Knife	30.11.95	6	300.00	Not in Working condition
Duster	29.03.97	1	990.00	Not in Working condition
Knapsack sprayer	29.03.97	1	3650.00	Not in Working condition
Knapsack sprayer	29.03.97	3	3479.00	1 not in working condition
Cultivator Blade	20.7.96	3	400.00	Not in Working condition
Rabit cage	05.11.96	1	2107.00	Not in Working condition
Kudali	04.02.97	1	40.00	Not in Working condition
Matok	04.02.97	2	80.00	Not in Working condition
Bucket	05.02.97	1	75.00	Not in Working condition
Sericulture Unit impl.	13-25.11.95		7201.00	Not in Working condition
Jack	30.03.96	1	380.00	Working condition
Disc harrow	2006-07	1	43304.00	Working condition
Seed drill	2006-07	1	29102.00	Not in Working condition
Dibbler	2006-07	2	1500.00	Working condition
Seed treatment drum	2006-07	1	1400.00	Working condition
Harrow	2006-07	1	2500.00	Working condition
Bullock drawn ridger	2007-08	1	3000.00	Working condition
Tractor drawn ridger	2007-08	1	20280.00	Working condition
Rechargeable sprayer	2007-08	1	4400.00	Not in Working condition
Power sprayer	2007-08	1	16500.00	Not in Working condition
Laptop HCL	2007-08	1	31200.00	Working condition
Power tiller	2008-09	1	121000.0	Not in Working condition
Generator	2008-09	1	2610000.00	Working condition
Camera	2008-09	1	22000.00	Not in Working condition
PKV Dal Mill	2009-10	1	45800.00	Working condition
Window AC ONIDA	2009-10	1	13899.00	Working condition
Godrej table	2009-10	06	45266.00	Working condition
Godrej chairs	2009-10	20	34166.00	Working condition
Godrej Printer table	2009-10	02	11041.00	Working condition
Rack	2009-10	01	6350.00	Working condition
Computer server system	2009-10	01	62400.00	Not in Working condition
Desktop computer	2009-10	05	114400.00	Not in Working condition
Laser printer	2009-10	01	13000.00	Working condition
Dot matrix printer	2009-10	01	17500.00	Not in Working condition
Scanner	2009-10	1	5200.00	Working condition
Earthing switch	2009-10	1	6500.00	Not in Working condition

UPS 650VA	2009-10	1	27040.00	Not in Working condition
Online UPS 3 KVA	2009-10	1	95425.00	Not in Working condition
VSAT	2009-10	1 set	138000.00	Not in Working condition
Multimedia speaker, Headphone, Webcam	2009-10	5 set	--	
Stabilizer with battery	2009-10	1 set	--	
Pulverizer machine	2011-12	1	49028.00	Working condition
Systonic Digital Ph meter	2011-12	1	10940.00	Working condition (RF A/c)
Systonic digital conductivity meter	2011-12	1	12970.00	Working condition (RF A/c)
Systonic colorimeter	2011-12	1	17150.00	Working condition (RF A/c)
Distillation unit	2011-12	1	19260.00	Working condition (RF A/c)
Laptop Acer	2012-13	1	34000.00	Working condition
Mobile Phone with GPS	2012-13	1	20000.00	Working condition
Samsung Mobile Tab	2012-13	1	22500.00	Working condition
Mobile soil testing lab equipments	2012-13	1 set	1431300.00	Under Manav Vikas
Servo Voltage Stabilizer	2012-13	1	22500.00	Working condition
Ahuja Wireless mounting amplifier	2012-13	1	11900.00	Working condition
Foot operated sealing machine	2012-13	1		Provided by Director Agri Processing & Planning Pune
Destoner, Dehuler	2013-14	1		
Floor shifter, Pulveriser	2013-14	1		
PKV Dal Mill	2013-14	1		Provided by Dr. PDKV Akl
Fruit Grader	2013-14	1		
LCD projector Benq	2014-15	1	23500.00	Working condition
Projector Screen	2014-15	1	3000.00	Working condition
Mike	2014-15	2	5530.00	Working condition
LCD projector BENQ	2016-17	1	27800.00	Working condition
Audio system Ahuja	2016-17	1 set	29520.00	Working condition
Desktop with printer	2016-17	1	39050.00	Working condition (RF a/c)
UPS	2016-17	2	3600.00	Working condition (RF a/c)
GPS meter	2016-17	1	15000.00	Working condition
Lenovo Tab	2016-17	1	9990.00	Working condition
Laptop HP	2016-17	1	37650.00	Working condition
Flame Photometer	2017-18	1	44480.00	Working condition
Spectro Photo Meter	2017-18	1	46600.00	Working condition
Colour Printer	2017-18	1	11000.00	Not in working condition
Mruda Parikshak Kit	2017-18	1	72000.00	Working condition
Distillation Unit	2017-18	1	42871.00	Working condition
Nitrogen Analyser	2017-18	1	193260.00	Working condition
Solar Power Generating system	2017-18	1 set	738359.00	Working condition (RFA/c)
Reversible plough	2019-20	1	63000.00	Working condition
Cotton Slasher	2019-20	1	155000.00	Working condition
Post Hole Digger	2019-20	1	134999.00	Working condition
Printer (Cannon)	2020-21	1	8500.00	Working condition
Desktop Computers	2020-21	2	72600.00	Working condition
Double distilled water unit	2020-21	1	117000.00	Working condition
BBF cum inter row	2022-23	1	98000.00	Working condition

cultivator				
Potato cum Turmeric planter with fertilizer drill	2022-23	1	85000.00	Working condition
Tractor operated boom sprayer	2022-23	1	97000.00	Working condition
Tractor John Deer 55HP	2022-23	1	911000.00	Working condition

1.8. Details SAC meeting conducted in the year – 13.12.2023

S. N.	Date	Name & Designation of Participants	Salient Recommendations	Action taken
1	Date : 13.12.2023 1. Mr. K.G Ingle, President SES 2. Dr. D. B. Undirwade, DEE, Dr. PDKV, Akola, 3. Dr. Tushar Athare, Scientist, ATARI, Pune 4. Mr. Purushottam Unhale, PD, ATMA, Buldana, 5. Shri. B. G. Vyavhare, SDAO, Khamgaon 6. Mr. Rohit T. Gadhe, DDM, NABARD, Buldana 7. Mr. V.L. Khondil, ADO, Z.P.Buldana 8. Mr. D.P. Wakode, TAO, Jalgaon Jamod 9. Mr. A.G. Bansode, TAO, Sangrampur 10. Dr. R.R. Isad, ACAH, TMVP, Jalgaon Jamod 11. Dr. Nagesh Parihar, LDO, TMVP, Jalgaon Jamod 12. Mr. G.R. Khupase, LSS, PS, Jalgoan Jamod 13. Mr. Amol Bache, CBI, Jalgaon Jamod 14. Mr. V.R. Wankhade, KVIB, Buldana 15. Mr. Shrikrishna Sonone, Progressive Farmers 16. Mr. Krushna Dawar,		Agricultural and allied sector enterpreneuriship through KVK should be promoted (Hon. K.G. Ingle, Chairman, SAC)	Different skill development trainings under PMFME, ASCI and State Agril. Dept are conducted in year 2023-24.
			Hatchery unit of KVK should be upgraded (Hon. K.G. Ingle, Chairman, SAC)	Upgradation workj of hatchery unit of KVK is in process.
			Rabbi sorghum cultivation should be promoted (Hon. K.G. Ingle, Chairman, SAC)	The awareness programmes / trainings for promotion of cultivation Rabbi/Summer sorghum were undertaken by KVK.
			The demonstration of Organic / Natural Farming should be undertaken at KVK instructional farm (Hon. K.G. Ingle, Chairman, SAC)	Established the on farm production unit for organic inputs with 2 acre demonstration plot in KVK instructional farm undertaken.
			Skill training on food processing should be conducted (Hon. K.G. Ingle, Chairman, SAC)	3 trainings of seed capital beneficiaries, 8 trainings of DLC recommended under PMFME and 7 training in 7 blocks on millet processing under ATMA were conducted during 2023-24.
			The dessiminated technologies through KVK should be according to climatic condictions. (Dr. Tushar Athare, Scientist, ATARI, Pune)	The climate resilient technologies are provided with advanced varietal demonstrations and technical backstopping also provided through different trainings round the year.

	Progressive Farmers 17. Mrs. Kokila S. Palkar, Progressive Farmers 18. Mrs. Meera Sonone, Progressive Farmers 19. Mr. Vikas Jadhao, Sr. Scientist & Head 20. All KVK staff	The feedback from the beneficiaries of OFT and Skill Training Programmes should be regularly recorded. (Dr. Tushar Athare, Scientist, ATARI, Pune)	Regular feedback of OFT's and skill training programmes are collected by KVK and the data is presented in form presentation and report.
		Use of ICT tools should be increased (Dr. Tushar Athare, Scientist, ATARI, Pune)	KVK sent 32 messages to 11300 farmers through Kisan Sarathi, 18 Whatsapp groups are created for messeges, 12 videos are uploaded on KVK youtube channel, 353 programmes are uploaded on KVK portal.
		Enterpreneurship development in poultry and Goatery sector should be promoted. (Dr. Tushar Athare, Scientist, ATARI, Pune)	2 CAT trainings programmes under NABARD and 3 training programme for beneficiaries of NLM are conducted by KVK in 2023-24.
		KVK Website should be upgraded regularly. (Dr. Tushar Athare, Scientist, ATARI, Pune)	KVK regularly updates its website.
		Impact analysis of OFT's should be in terms of economical impact. (Dr. Tushar Athare, Scientist, ATARI, Pune)	Economical impact analysis of OFT's are carried out and presented during actiona plan workshop.
		Awareness programmes about reduction in use of chemical fertilizers and insecticide should be conducted. (Hon. Dr.D.B. Undirwade, DEE, Dr.PDKV, Akola)	7 trainings programme on safe use of pesticides and 1 training of PCO's were conducted by KVK.
		Awareness programmes about use of own produced seeds by farmers should be undertaken. (Hon. Dr.D.B. Undirwade, DEE, Dr.PDKV, Akola)	KVK regularly arrange awareness programmes about sowing of own produced seeds of soybean, pigeon pea for farming community.
		Promotion of subsidiary business like Sericulture should be promoted through KVK. (Hon. Dr.D.B. Undirwade, DEE, Dr.PDKV, Akola)	Proposal for establishment of sericulture unit has been submitted under Samagra Sericulture scheme.

		Varietal promotion of Dr.PDKV, Akola through OFT and FLD. (Hon. Dr.D.B. Undirwade, DEE, Dr.PDKV, Akola)	KVK regularly promote varieties developed by Dr. PDKV Akola under FLD and OFT.
		Scientific trainings of the beneficiaries of goat farming through NLM. (Dr. R.R. Isad, Asstt. Comm. Animal Husbandry, Jalgaon Jamod)	Two trainings of beneficiaries are conducted
		Technical baskstopping for different schemes, trainings and projects under State Agril. Dept. should be provided by KVK. (Mr. Purushottam Unhale, PD, ATMA)	KVK regularly provides technical baskstopping for different schemes, trainings and projects under State Agril. Dept., ATMA & NABARD
		Demonstration and training on natural farming in collaboration with ATMA Buldana should be conducted by KVK. (Mr. Purushottam Unhale, PD, ATMA)	7 trainings in all 7 blocks with with visits to ideal demonstration units were organized by KVK
		Trainings for entrepreneurship development using innovative technologies should be facilitate by KVK (Mr. Gadhe, DDM, NABARD)	Different entrepreneurship development training for agriculture processing, poultry, Goatery, millet processing were organized in collaboration with different agencies.

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
1	***Sole Crop(s)*** · Kharif Sorghum · Cotton · Soybean · Rabi Sorghum
2	***Inter Cropping (s)*** · Cotton + Green gram 1 : 1 · Cotton + Black gram 1 : 1 · Cotton + Red gram 8 : 2 or 10 : 2 · Sorghum + Red gram 3 : 3 or 6 : 3 · Red gram + Green gram 2 : 4 · Red gram + Soybean 2 : 4 · Cotton + Sorghum + Red gram + Sorghum 6 : 1 : 2 : 1 · Soybean + Sorghum + Red gram 9 : 2 : 1
3	***Double Cropping: Rain fed situation (If late rains are received)*** · Green gram - Gram / Wheat / Safflower /Sunflower · Black gram - Gram / Wheat / Onion · Soybean - Wheat / Gram / Onion / Summer Ground nut & Greengram

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

S. No	Agro-climatic Zone	Characteristics
1	Ghat Tract	This sub-zone occupies greater part of Buldana District with 9 tahsils viz. Chikhali, Buldana, Deolgaon Raja, Mehkar, Lonar, Malkapur, Sindhkhed Raja, Motala and Nandura. Elevation varies from 350 to 600 Above Sea Level. Annual rainfall varies from 750 to 850 mm. Soil ranges from very shallow to moderately deep. The topography is rolling and land slopes are around upto 7%. In this ghat tract Sorghum & Cotton are predominant crops.
2	Black Plains	This sub-zone spreads over Khamgaon and Shegaon tahsils of Buldana districts along with 15 tahsils of Akola and Amravati. Annual Precipitation varies from 750 to 900 mm. Soils are moderate to deep and predominantly vertisols with several situations of ill drainage due to that crop suffer more of wet conditions during years of relatively higher rains.
3	Sailent Alkali Tract	This sub-zone includes major parts of 6 tahsils viz. Jalgaon and Sangrampur tahsils of Buldnan District and Akot, Telhara of Akola District and Daryapur and Anjangaon Surji of Amravati District. The soils are vertisols, deep and saline to saline alkali in reaction. Annual precipitation varies between 750 to 850 mm. Open wells in the tract have saline water as a result of which the same cannot be tilized for irrigation purpose. Cotton and Sorghum are the major crops of the tract together with rainfed Wheat during Rabi season. Poor drainage during rainy season is rampant.

a) Topography

S. No	Agro ecological situation	Characteristics
1	AES I	The AES-I lies on the north-east part of the district with main characteristic of black cotton soil, high rainfall and hilly topography in another side. The blocks covered under this AES are Sangrampur (95%) and Jalgaon Jamod (70%). 'Bilala' dominates some part, which are separated from Madhyapradesh. The crops like cotton, wheat and gram grown in the area. The two villages Ekalara (BK) and Sungaon were selected for as representative of AES for data collection.
2	AES II	This AES situated in west north direction of the district. The blocks covered by AES are Malkapur (100%), Nandura (100%), Shegaon (100%), Sangrampur (5%) and Khamgaon (15%). The main feature of AES are plain topography with saline soil called Kharpanpata. The major crops grown in this AES are cotton, gram and sunflower. For the data collection two representative villages are selected namely Nipana and Kalkhed.
3	AES III	This AES situated in western side of the Buldana district. The blocks covered are Motala (100%), Buldana (100%) and Chikhali (30%). The Buldana and Chikhali are situated at high attitude as compared to Motala. The main feature of AES are hilly topography, medium to shallow soil. The major crops grown are cotton, jowar, maize, soyabean, wheat and gram. The horticultural crops custardapple, aonla and vegetable crops like, chilli, brinjal and tomoto are also grown in the AES.
4	AES IV	AES IV comprise Mehkar (100%), Khamgaon (85%) and Chikhali (70%) blocks. This AES is situated in east side of the district. The main feature of AES-IV is assured rainfall, well irrigated, medium to shallow soils. The AES-IV has favourable weather condition for grape production in Chikhali block. The agricultural crops grown in this area and soybean, cotton, jowar maize in kharif and gram and wheat in Rabi season. The horticultural crops grown in this AES are grape, Guava, mango, custard apple and sweet orange. Chilli, onion, tomoto and onion seed production in case of vegetable are grown. For data collection of AES the two representative villages are selected namely, Nagzari and Hiwarkhed.
5	AES V	The AES-V is characterized by hilly and undulating topography, medium to shallow soils and rainfed area covering Deulgaon Raja (100%), Sindkhed Raja (100%) and Lonar (100%) blocks. This AES is situated in south of the district. The major crops grown in Kharif are soyabean, Cotton, Jowar and wheat, gram, safflower in rabi season. The major horticulture crop santra is grown in this AES. The climate is favourable for custard apple and aonla and has wide scope in this AES.

2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Vertisoles	(Heavy black soil)	199318.00
2	Inseptisoles	(Medium black)	265757.00
3	Entsoles	(Light soil)	273139.00

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

S. No	Major Field Crop	Area (ha)	Production (MT)	Productivity (kg/ha)
Kharif Season				
1	cotton	203511	534.276	446
2	Soybean	398682	674.967	1693
3	Maize	21049	55.99	2660
4	Sorghum	2494	24.94	755
5	Pigeonpea	79479	71.786	903
6	Greengram	13253	8.456	638
7	Blackgram	13901	8.788	632
8	Ground Nut	355	346	974
Rabi Season				
1	Rabi Jowar	12932	11742	908
2	Maize	24158	32557	1347
3	Wheat	95635	217514	2415
4	Bengalgram	177025	280159	1582
Summer Season				
	Maize	251	377	1500
2	Summer groundnut	256	302	1180

Area Production & Productivity of Major fruit crop in Buldana District

Sr. No.	Name of Crop	Area (Ha)	Production (ton)	Productivity (t/ha)
01	Mandarin	1489	10655	7.15
02	Aonla	70	627	8.89
03	Banana	564	16467	29.15
04	Custard-apple	240	3941	16.42
05	Guava	467	3497	09.35
06	Mango	312	1222	03.90
07	Papaya	291	3164	10.84
08	Pomegranate	764	7847	09.29
09	Sapota	72	453	06.28
10	Kagzi-lime	269	2134	07.90
11	Sweet Orange	421	5473	12.99

Area Production & Productivity of Major Vegetable crop in Buldana District

Sr.No	Name of Crop	Area (Ha)	Production (ton)	Productivity (ton/ha)
01	Brinjal	464	5988	12.89
02	Cabbage	219	2360	10.76
03	Sweet pepper	27	183	6.79
04	Green Chilli	846	11799	13.93
05	Okra	290	1315	4.53
06	Onion	3877	28656	7.38
07	Tomato	518	6090	11.74
08	Ginger	211	2139	10.11
09	Turmeric	442	47208	106.69
10	Garlic	136	518	3.80
11	Cauliflower	229	2425	10.58

(Source- SAO, Buldana)

2.5. Weather data (2023)

Month	Normal Rainfall (mm)	Normal Rainy Days (Nos)	Temperature 0 C		Relative Humidity (%)	
			Maximum	Minimum	Maximum	Minimum
January	0.0	1	26.3	13.4	71	51
February	0.0	1	31.3	15.7	50	33
March	13.2	1	36.5	22.3	41	26
April	0.0	1	40.7	26.8	27	17
May	5.5	2	40.3	26.7	45	23
June	139.3	8	36	25	61	54
July	192.2	13	28	22.1	89	82
August	207.4	10	29.7	21.9	84	73
September	120.5	8	29.7	22.3	86	84
October	57.1	4	29.8	20.4	80	76
November	17.7	1	29.2	13.9	55	47
December	6.2	1	29.4	15.6	69	54
Total / Average	**745.9**	**51**	**32.24**	**20.51**	**63.17**	**51.67**
Source: IMD, State Agril. Dept., Govt. of Maharashtra						

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

Category	Population	Production	Productivity
Cattle			
Crossbred	10071	105.30	9.98
Indigenous	93344	129.80	1.48
Buffalo	129370	343.23	6.53
Sheep	93388	---	--
Goats	334757	--	--
Pigs	17151	--	--
Poultry	172000	--	--

(Source: http:// ah.adfmaharashtra.in)

2.7 Details of Operational Area / Villages

Name of Taluka	Name of the village	Major crops & enterprise	Major problem identified	Identified Thrust Areas
Jalgaon Jamod Sangrampur	Patan Hadiya mahal	Cotton	Sowing of Cotton in light soil & rainfed situation. Management practices (wider spacing, No Seed treatment, No proper gap filling, Protective irrigation at critical stages) Imbalance nutrient management (Soil test Based Fertilizer application Inadequate & low-Quality organic matter used) Improper Pest, diseases mgt.	Efficient use of Fertilizers Integrated Nutrient Management Integrated pest & diseases management.
		Soybean	Unawareness about New variety, No use of good quality seed, Imbalance nutrient management, (No use of 2%foliar spray of Urea) Improper Pest, diseases mgt. Moisture stressing during flowering	New Variety, Integrated Nutrient Management, Proper Pest & diseases management In situ moisture conservation.
		Maize	Scarcity of Labour for Weeding, Higher cost for Weeding, Imbalance nutrient management	Weed Management, Integrated Nutrient management
		Red gram / Green-gram/ B.Gram /	Imbalance nutrient management, Excess Urea Application, Improper pest & disease management	Integrated Nutrient management, Foliar Application of 2% Urea, Integrated pest & diseases management
		Wheat	Low yield due to use of traditional crop varieties, Improper Sowing time, Imbalance nutrient management	Importance of New High Yielding Varieties, Nutrient management Weed Management
		Ground Nut	Unawareness about New Technology, Secondary and micronutrient deficiencies	BBF or Ridges and furrow method of sowing Nutrient management, Proper Pest & diseases management

		Horticult-ural crops	Non availability of guanine planting Material, Improper Management Practices, Improper Spacing, Imbalance Nutrient Management, Improper Insect Pest and disease Management, Improper use of irrigation facilities, Flower and fruit drop, Post-harvest losses of fruit Crops, Less returns due to direct selling, Non availability of value added products	Improved Nursery techniques for vegetable seedlings, Application of growth regulator in vegetable and fruit crops, Pre harvest & Post harvest techniques of vegetable, fruits & other Horticultural crops, Micronutrient application in Horticultural crops, Fruit & vegetable preservation, Irrigation management in Horticultural crops, Introduction of new Horticultural crops of low water requirement, Cultivation of tissue culture banana
		Soil & water conservation (Agril. Engg.)	Improper tillage operation & seed bed preparation, Water scarcity, Non adoption of in-situ soil & water conservation techniques	Soil and water conservation, Use of proper implements, Maintenance of tractor & tractor drawn implements, Post-harvest technology, Care and maintenance of Plant Protection equipments
		Irrigation	Improper method of irrigation	
		Post-Harvest Technology	Lack of knowledge of simple techniques of PHT viz. clean Cotton picking, grading, available fruit packaging grading & processing	
		Mechanization	Lack of knowledge about improved Agriculture implements	
		Drudgery in field operation	Drudgery in agricultural operation, Time consuming traditional method of operation	
		Cattle	Management & health, Non adoption of proper housing systems, Manage mental problems like identification, dehorning, castration, Unawareness about Vaccination, Irregular Deworming, Unavailability of timely treatment, Low Milk Yield	Formulation of balance ration for Dairy animals, Scientific feeding of animals, Ecto-parasitic infection in animals, Inbreeding problems in goat & dairy animals, Worms problems in animals, Improving backyard poultry, Proper housing of animals, Vaccination and healthcare in animals, Entrepreneurship development through Dairy, Poultry & Goatry
		Buffalo	High Mortality in Calves, Silent Heat, Highly Worms, Infection in Milch Buffalo	

		Goat & Sheep	Highly abortion rate, High incidence of FMD, Less Use of Concentrate in Feeding, Mortality in Rainy season	
		Poultry	Rearing of Deshi Breeds, lack of knowledge about proper Poultry management, High Cost of Feed, Higher Mortality, Effect of climate on poultry production	
		Agriculture Technology & Marketing	Lack of upgradation of improved agriculture, Weak extension linkage between extension workers & farmers, Improper adoption of Improved agriculture technologies, Women empowerment Unavailability of current market prices at village level	Taking up suitable measures to impart knowledge about modern agriculture amongst the farmers' community, Creation of awareness amongst the farmers, farmwomen, rural youth regarding improved agricultural technologies
		Rural Women & Child Nutrition, Hygiene & Health	Iron deficiency in women, Underweight & mal nutrition, Balance diet, Hygienic problems	Nutrient deficiency of farm women & child, Heavy physical stress due to tradition methods in agricultural operations, Women empowerment Value addition of agricultural commodities
		Women Drudgery reduction	Lack of awareness about agriculture tools & implements	
		Agro-processing & value addition	Heavy losses in agriculture commodities due to unavailability of agro processing facilities.	

2.8. Priority thrust areas

Discipline	Thrust Area
Agronomy	
Cereals	
Maize	Integrated Nutrient Management, Weed Management, Crop Diversification.
Sorghum	Integrated Nutrient Management
Wheat	Variety, Integrated Nutrient Management, Weed management
Oilseed	
Soybean	Variety, Integrated Nutrient Management
Groundnut	Variety, INM,
Pulses	
Greengram, Blackgram, Pigeon pea, Bengal gram	Variety, Integrated Nutrient Management

Fiber crop	
Cotton	Integrated Nutrient Management
Plant Protection	
Maize	Integrated Pest Management, FAW management
Soybean, Sorghum, Ground Nut, Greengram, Blackgram, Pigeon pea, Bengalgram	Integrated Pest & Disease Management
Cotton	Integrated Pest & Disease Management, PBW management
Citrus, Onion	Pest & disease management.
Horticulture	
Fruit crops	
Custard Apple	Improved variety, Integrated crop management, training & pruning method
Banana	Nutrient Management, Water management, Pre/post harvest management
Citrus	Nutrient Management, Water management, Pre/post harvest management, Pest & disease management.
Turmeric	Improved variety, Nutrient Management, Pest & disease management, pre-harvest crop management, storage management
Papaya	Improved Variety, Pest & disease management
Watermelon/Muskmelon	Pest & disease management, Polythene mulch
Onion	Improved variety, weed management, pre-harvest crop management, storage management
Tomato	Improved variety, Pest & disease management
Brinjal	Integrated crop management, Pest management
Chilli	Pest & disease management, Nutrient Management
Medicinal Crops	
Safed Musli	Improved variety, plantation management, post harvest management.
Agricultural Engineering	
Mechanization	Use of Improved implements for mechanization of dryland Agriculture
Soil & Water conservation	In-situ soil moisture conservation
Micro Irrigation system	Use of improved irrigation methods like drip & Sprinkler irrigation system
Small scale processing	PKV Mini Dal Mill for pulses processing, PKV Deseeding machine for custard apple
Veterinary Science	
Dairy	Feed & Fodder production, Animal health, Use of mineral mixture
Goat	Up gradation of local goat, Health
Poultry	Feed & Rearing of birds
Home Science	
Women & Child care	Nutrition status
Drudgery Reduction	Use of drudgery reducing farm implements/equipment's
Capacity Building	Strengthening up of SHG / farmers club

3. TECHNICAL ACHIEVEMENTS

3.1 A. Details of target and achievements of mandatory activities

OFT (Technology assessment and Refinement)				FLD (Oilseed, Pulses, Cotton, Other crop / enterprise)			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
13	13	133	133	18	18	405	405

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
120	212	3000	7674	180	709	8000	48799

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
Soybean – 20 qt	22.50 qt	Custard Apple – 5000 Nos	150 Nos
Pigeon pea – 10 qt	12.50 qt	Citrus – 1000 Nos	650 Nos
Chick pea – 10 qt	13.28 qt	Turmeric – 1 qt rhizomes	2 qt
Fodder sets CO5,CO4 – 4000 nos.	5000 nos.	Garlic – 0.20 qt	0.20 qt
Azolla Culture 20 kg	22 kg		

Livestock, poultry strains and fingerlings (No.)		Bio-Products (kg)	
7		8	
Target	Achievement	Target	Achievement
CARI-Nirbhik, Kaveri birds – 250 nos	400 nos.	Vermicompost – 40 qt	60 qt

3.1. B. Operational areas details during the year 2023

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)*
1	**Cereals**				
	--				
2	**Fibre crop**				
	Cotton	Heavy Infestation of Pink bollworm, sucking pest infestation	157500 Ha 70 -80 % area affected	Liha Bk	FLD , Trainings
3	**Pulses**				
	Pigeaon pea	Low yield	19250	Bhingara,saikhed,kherda	CFLD on Variety BDN716+ICM
		Pod borer complex	51000 ha, (70%)	Patan, Hadya Mhal	FLD, Trainings, field visit, diagnostic visit
		Wilt problem	47000 ha (65%)	Patan, Hadya Mhal	FLD, Trainings, field visit, diagnostic visit
	Chickpea	Wilt problem	135240	Dhnora,Sagoda,Panchala	CFLD on improved wilt resistant variety Phule Vikrant
4	**Oilseeds**				
	Soybean	Varietal Monoculture of JS335,Low yield,	138235	Bhingara,Saikhed,Hadiyamal	FLD of improved Variety Phule sangam
	Soybean	Infestation of Stem fly	1784570 ha (50-55%)	Patan, Hadya Mhal	FLD, Trainings, field visit, diagnostic visit
	Summer Ground Nut	Low yield due to poor crop management	285	Umapur,Nimkhedi Garpeth	CFLD on Variety TAG+ICM in summer ground nut
5	**Fruit Crop & vegetables**				
	Turmeric	Nutrient management, Genuine variety, Pest & Disease incidence	750 ha	Wankhed Tq Sangrampur, Umra Tq Sangrampur, Jalgaon jamod	OFT for nutrient management, FLD on Varietal evaluation
	Onion	Good genuine variety, storage losses	2500ha	Dhanora J. Tq Nandura, Ambikapur Tq Khamgaon, Sungaon Tq Jalgaon jamod, Wadgaon paatan JJ	OFT on varietal evaluation, FLD on onion storage structure veltilation
	Garlic	Variety, storage, pest	150ha	Hadiyaamal Tq Sangrampur,	OFT on varietal evaluation

		attack		Jamod Tq Jalgaon	
	Mandrin	Heavy Infestation of Mites	70 % problem	Sonala, Hadiyamahal	OFT , Trainings, field visit, diagnostic visit
	Orange	Bahar management, Nutrient management	3500 ha	Sonala, Saaykhed, Tunki Tq Sangrampur	FLD on nutrient management, Training on nutrient management, crop management
6	**Livestock**				
	Poultry	1.Low eggs production 2.Lack of nutritious diet 3.Low weight gain	7500	Umapur ,hadamal,patan wasadi,wadshingi	FLD Training, Group discussion,
	Goat	Ir- regular deworming Low body weight gain Low growth rate Heavy mortality in kids	2480	Charban, Patan, umapur,sonala, wadshingi, wasadi,	OFT,Training ,Group discussion
	Dairy animals	Loss of milk yield Repeat breeding Low conception rate Reduce breeding efficiency	1680	Palshi,Jalgaon Patan ,wasadi,sonala, Nandura	OFT,Training ,Group discussion
	Feed and fodder	Low milk production in dairy animals due to non-cultivation of green fodder crop	282 ha	Hadyamal, Patan Wadgaon ,wasadi,	FLD Training, Group discussion
	Backyard Poultry	1.Low eggs production 2.Lack of nutritious diet 3.Low weight gain	1560	Patan Wadgaon Hadyamal,wasadi, sonala,	OFT,FLD Training ,Group discussion
7	Farm Implement				
	PDKV BBF Planter	Maize : High and labour intensive plantation work. Drudgery and time consuming operation. Low yield due to absence of proper moisture conservation	42000 ha	Wadgaon Patan, Kherda, Nimbhora, Sungaon	FLD on use of BBF planter

		practices. Improper seed placement.			
		Ground Nut - Low yield High seed rate in the operational area	1105 ha	Jamod, Tunki Bavanbir, Patan	FLD on use of BBF Planter
	PDKV Garlic planter	High and labour intensive plantation work. Low yield due to improper plant population	312 ha	Wadgaon Patan, Ambhoda	OFT use of Garlic planter
	PDKV mini dal mill	Low income families in rural area		Malkapur	Training and awareness camps on PDKV mini dal mill.
	Subsoiler	Low yield due to moisture stress hard and compacted soil. Improper management of cotton waste after harvest.	16000ha 126000a	Khutpuri, Jalka Bhadang, Mandka, Pimpri Deshmukh, Wazar, Zodga of -Khamgaon Block Wadgaon paran, Nirod, Kherda, Asalgaon, Dhanora, Borala of Jalgaon Jamod Block	Trainings, FLD , OFT
8	Water Conservation	Low yield due to rainfed farming situation	289000ha		Training programmes on in situe moisture conservation.
9	Processing and value addition	Low income generation activities in the district		Aadol, Sulaj, Dhanora, Asalgaon	Training small scale processing and value addition.
10	Micro Irrigation	Low life and improper utilization of Micro Irrigation Unit	36452 ha	Pimpri Gavali, Kothali,	Training
11	Post Harvest Technology	Post harvest losses		Khera, shegaon and palsoda	Training

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 Crop	Human Health	TOTAL
Integrated Nutrient Management	0	0	0	01	0	0	0	0	01	0	**02**
Varietal Evaluation	0	01	0	0	02	0	0	0	0	0	**03**
Integrated Pest Management	0	0	01	0	0	01	0	0	0	0	**02**
Integrated Crop Management	0	0	0	0	0	0	0	0	0	0	0
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0	0
Weed Management	0	0	0	0	0	0	0	0	0	0	0
Resource Conservation Techn.	0	0	0	0	0	0	0	0	0	0	0
Farm Machineries	01			02					01		**04**
Integrated Farming System	0	0	0	0	0	0	0	0	0	0	0
Seed / Plant production	0	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0	0
Drudgery Reduction	0	0	0	0	0	0	0	0	0	0	0
Storage Technique	0	0	0	0	0	0	0	0	0	0	0
Mushroom cultivation	0	0	0	0	0	0	0	0	0	0	0
Human Nutrtion	0	0	0	0	0	0	0	0	0	0	0
Total	**01**	**01**	**01**	**03**	**02**	**01**	**0**	**0**	**02**	**0**	**11**

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

Thematic areas	Cattle	Poultry	Piggery	Goatry	Fisheries	TOTAL
Evaluation of Breeds	0	01	0	0	0	01
Nutrition Management	0	0	0	0	0	0
Disease of Management	0	0	0	0	0	0
Value Addition	0	0	0	0	0	0
Production and Management	01	0	0	0	0	01
Feed and Fodder	0	0	0	0	0	0
Small Scale income generating enterprises	0	0	0	0	0	0
TOTAL	**01**	**01**	**0**	**0**	**0**	**02**

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 trail covering all the Technological Options)
Integrated Nutrient Management	Turmeric	Assessment of Turmeric special micronutrient and micronutrient (Bo, Fe, Zn) as foliar spray in Turmeric crop	07	07	2.8
Varietal Evaluation	Soybean	Assess the performance of new released variety of soybean cv AMS100-39(PDKV Amba) and cv AMS-MB-5-18(Suvarna Soya) in Buldana District	07	07	5.6
	Onion	Assesment on Onion variety Bhima Shakti and Bhima Kiran Onion varieties over local variety for better storability & yield in Buldana district	07	07	2.8
	Garlic	Assesment on Garlic variety G*41 and AKG-7 over local variety for better storability & yield in Buldana district	07	07	2.8
Integrated Crop Management	Cotton	Assess the performance of Foliar spray of 25 PPM Gibrelic acid (13.9 gram GA in 500 lit. water per ha on Bt Cotton at the time of square formation and boll development stage	13	13	5.2
Integrated Pest Management	Mandarin	Heavy infestation of mites in mandarin	10	10	4.0
	Chickpea	Management of pod borer Chickpea	10	10	4.0
Farm Machineries	Maize	Use of BBF Planter for sowing maize crop	15	15	6.0
	Garlic	Use of PDKV Garlic planter for planting garlic buds	15	15	6.0
	Ajwain	Uase of PDKV Ajwain seed extractor	15	15	6.0
	Onion	Use of PDKV Onion seed extractor	07	07	2.8
Total			**113**	**113**	**48**

B.2. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds	Poultry	Assess the performance of new variety CARI Nirbhik breed under back yard Poultry	10	10
Nutrition Management	Dairy Cow	Evaluation of Hybrid napier varity of fodder CO5	10	10
Total			**20**	**20**

B.3 Technologies assessed under other enterprises – Nil

Name of Enterprises	Name of the technology assessed	No. of trials	No. of farmers
Mushroom			
Apiary			
Vermicompost			
Tailoring			
Nutrition Garden			
Nursery Management			
Production and Management			
Eentrepreneurship development			

B 4.Technologies assessed under Women empowerment assessment - Nil

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

C1. Results of Technologies Assessed

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Soybean	Rainfed Medium Black cotton soil	Varietal Monoculture of Variety JS335 This Variety is Susceptible to Various Pest and Diseases	Assess the performance of new released variety of soybean cv AMS100-39(PDKV Amba) and cv AMS-MB-5-18(Suvarna Soya) in Buldana District	7	Soybean cv AMS100-39 (PDKV Amba) and cv AMS-MB-5-18 (Suvarna Soya)	plant height (cm) No.of pods/plant Yield (qt/ha)	T1 - 45.2 T2 - 49.4 T3 - 46.2 T1 - 21.43 T2- 24.29 T3- 44.29 T1 - 12.58 T2 - 14.45 T3- 13.14	suvrna soya and amba varieties of soybean gives at par yield 14.45 and 13.14 qt/ha which are 14.79 % and 4.40% higher than JS335	suvrna soya and amba varities of soybean gives at par yield ,pods of suvrna soya does not scatter and damage by heavy rains ,both varieties gives higher yield than JS-335.	--	--
Cotton	Rainfed Medium Black cotton soil	High Boll shading and Less Boll retaintation Low Yield	Assess the performance of Foliar spray of 25 PPM Gibrelic acid (13.9 gram GA in 500 lit. water per ha on Bt Cotton at the time of square formation and boll development stage	13	Foliar spray of 25 PPM Gibrelic acid (13.9 gram GA in 500 lit. water per ha on Bt Cotton at the time of square formation and boll development stage	plant height (cm) Bolls/plant (nos) Bolls weight (gm) Rain water Use Efficiency (Kg/mm/ha) Yield (qt/ha)	T1 - 118.08 T2 - 125.69 T1 - 12.23 T2 - 13.62 T1 - 4.20 T2 - 4.29 T1 - 1.88 T2 - 2.07 T1 - 12.61 T2 - 14.02	Two foliar applications of 25 ppm GA at flowering and boll development stages recorded less square drop , more bolls/ plant and boll weight (g), higher seed cotton yield (11.18 % more than control), higher rain water use efficiency and gross returns.	Two foliar applications of 25 ppm GA at flowering and boll development stages recorded less square drop , more bolls/ plant and boll weight (g), higher seed cotton yield and crop remain green for long time	--	--

Turmeric	Irrigated black soil		Assessment of Turmeric special micronutrient and micronutrient (Bo, Fe, Zn)as foliar spray in Turmeric crop	07	T2- Foliar spray of Turmeric special micronutrient @ 5gm/lit T3 - Foliar application of Boron, Fe & Zn @ 375gm/acre at vegetative growth stage, two sprays at 25 days interval	Avg.Yield, qt/ha Avg crop duration, days B:Cratio	T1-212.07 T2-247.53 T3- 232.14 T1- 279 T2- 283 T3- 281 T1- 1.67 T2- 2.03 T3 – 1.88		Due to application of turmeric special micronutrient, leaves turn dark green, pale yellow color formation reducess and fine quality fingers.	--	--
Onion	Irrigated black soil		Assesment on Onion variety Bhima Shakti and Bhima Kiran Onion varieties over local variety for better storability & yield in Buldana district	07	T2- Bhima Shakti T3- Bhima Kiran	Avg.Yield, qt/ha Avg onion bulb weight, gm B:Cratio	T1-331.05 T2-359.06 T3- 345.84 T1-79.03 T2-81.84 T3- 80.57 T1-3.06 T2-4.01 T3- 3.83		Bhima shakti bulbs are greater in size, yield is more than Bhima kiran, good storability	--	--
Garlic	Irrigated black and light soil		Assesment on Garlic variety G-41 and AKG-7 over local variety for better storability & yield in Buldana district	07	T2 : G-41 T3 : AKG-7	Avg.Yield, qt/ha Avg garlic bulb wt, gm B:Cratio	T1-105.89 T2-117.30 T3- 109.36 T1-114.21 T2-130.52 T3- 127.66 T1-3.32 T2-3.72 T3- 3.64		G41 variety bulb greater in size. Good pungency	--	--

Chick pea	Irrigated	Low yield due to Heavy iinfestation of Helicoverpa	Management of Helicoverpa armigera in chickpea	10	T1 – Farmer practice -2 to 3 sprays of Profenophos @ 40 ml , Emamectin Benzoate 5 SG 10 g/10 lit water, Chlorantriniliprole 18.5 SC @ 3 ml per 10 lit T2 - Spraying of Ethion 50% EC @ 20 ml in 10 L of water at 50 per cent flowering of Chickpea followed by second spraying of Chlorantriniliprole (18.5 SC) 2.5 ml in 10 L of water after 15 days is recommended for effective management of pod borer and higher yield of Chickpea T3 - Clean cultivation and deep summer ploughing, Mixing of 100 gram Sorghum seed at the time of sowing, Sowing of two rows of coriander and mustard around crop. Erection of bird perches in chickpea field @ 50 / ha after 30 days of crop sowing, Installation pheromone traps @ 5 /ha, Spraying NSKE 5% at 50% flowering, Spraying of He ar NPV @ 500 LE/ at time of pod formation stage, Spraying of benzoate 5 SG @ 4 gram/10 liter of water at pod filling stage	No of larvae per MRL	2.7 0.80 0.60	T2 and T3 gives better result than farmer practice	Both the technologes are effective for management of Helicoverpa in chickpea .	--	--

Mandarin	Irrigated	Low yield due and Quality of orange fruits to Heavy infestation of Mites	Management of Mites in Mandarin	10	T1- Spray of Dicofol 18.5% EC @ 2.7ml per 10 liter of water at initiation of the pest infestation and second spray 15 to 20 days after first sprays T2 - Spraying of Diafenthiuron 50% WP @ 20 gm per 10 liter of water at initiation of pest and second spray 15 10 20 days after first spray	Per cent infestation of fruits due Mites				Result awaited	
Dairy cow	--	Failure of oestrous, Infertility Repeat breeding Low conception rate	Induction of oestrous in anoestrous cow	10	Inj.vit.AD3 Mineral mixtre Deworming Inj GnRh 5 ml Inj.PGF2Alpha	Oestrous induction response in treated cow Conception Rate	08 04	62.50% 75%	Due to synchronization with Ovisynch protocol animal shows better response 62.50 % and conception rate 75 %	No	No
Poultry	--	Low eggs production, low growth rate, low weight gain, economic loss	Assess the performance of new variety CARI- breed under backyard poultry	10	Rearing of CARI - Nirbhik birds	Avg. body weight gain (kg/ bird) Avg. Eggs production (No)	2.500 168	66.66% 48%	Due to this eggs production, 66.66% and weight gain 48% increase	No	No
Maize	Kharip - Irrriga ted 2023	High planting cost by manual method Labour Shortage High cost and time consumin g operation	Use of PDKV BBF Planter for planting maize crop	15	T1- Manual Method T2- BBF Planter	Yiel qt/ha Net Return Rs/ha Cost of Operation	T1-54.66 T2-64.23 T1- Rs. 27393/- T2-Rs. 37442/- T1-Rs. 3600/- T2-Rs. 2000/-	Inc. in yield Net Return and reduction in cost of operation with BBF Planter	Seed saving, reduction in cost of planting maize crop in notable.		

Garlic	Rabi – Irrigated 2023	High labour cost in planting operation	Use of PDKV Garlic Planter	15	T1- Manual Method T2- PDKV Garlic planter	Yiel qt/ha	T1-81.07 T2-90.46	Inc. Yield, quality of garlic produce. Reduction in cost of operation by Rs. 7600/-	Time and cost saving method, improves quality of production .		
						Net Return Rs/ha	T1- Rs. 138650 T2-Rs. 95500				
						Cost of Operation	T1-Rs. 8600/- T2-Rs. 1000/-				
Ajwain	Kharip 2023	Low seed germination due to high rpm in combine thresher	Use of PDKV Ajwain seed extractor	15	T1- Thresher T2- PDKV Ajwain seed extractor	Seed germination (%)	T1-86.67 T2-87.63	Output capacity of machine is very low, time of operation is high	Inferior quality of produce. Low output capacity.	Electric power source should be replaced by Tractor PTO. Output capacity should be improved as it will take more time to thresh.	
						Time of operation hr/qt	T1-0.15 T2-1.45				
						Output Capacity	T1-2.7 T2-0.43				
Onion	Kharip 2023	Low seed germination due to high rpm in combine thresher	Use of PDKV onion seed extractor	07	T1- Thresher T2- PDKV Onion seed extractor	Seed germination (%)	T1-86.96 T2-87.23	Output capacity of machine is very low, time of operation is high	Inferior quality of produce. Low output capacity.	Electric poer source should be replaced by Tractor PTO. Output capacity should be improved as it will take more time to thresh.	
						Time of operation hr/qt	T1-0.15 T2-1.45				
						Output Capacity	T1-2.7 T2-0.43				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, qt/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) (Sowing of Cv JS335)		1258	kg/ha	25903	1.70
Technology option 2- Sowing of Cv AMS100-39 (PDKV Amba)	PDKV Akola	1445	kg/ha	34840	1.93
Technology option 3- Sowing of Cv AMS-MB5-18 (Suvarn Soya)	PDKV Akola	1314	kg/ha	28559	1.77
Technology option 1 (Farmer's practice) (No Spraying of Gibrelic acid on Rainfed Bt. Cotton)		1261	kg/ha	43464	1.97
Technology option 2- Foliar spray of 25 PPM Gibrelic acid (13.9 gram GA in 500 lit. water per ha on Bt Cotton at the time of square formation and boll development stage	PDKV Akola	1402	kg/ha	51352	2.09
(TURMERIC) Technology option 1 (Farmer's practice)		212.07	Qt/ha	103984	1.69
Technology option 2	IISR, Kozhikode	247.53	Qt/ha	151336	2.03
Technology option 3	TNAU, Coimbatore	232.14	Qt/ha	130718	1.88
(ONION) Technology option 1 (Farmer's practice)		331.05	Qt/ha	199105	4.02
Technology option 2	DOGR, Rajgurunagar Pune	359.09	Qt/ha	221537	4.37
Technology option 3	DOGR, Rajgurunagar Pune	345.84	Qt/ha	210937	4.20
(GARLIC) Technology option 1 (Farmer's practice)		105.89	Qt/ha	199655	3.32
Technology option 2	DOGR, Rajgurunagar Pune	117.3	Qt/ha	238800	3.72
Technology option 3	NHRDF, Laasalgaon	109.36	Qt/ha	231650	3.64

T1 – Farmer practice -2 to 3 sprays of Profenophos @ 40 ml , Emamectin Benzoate 5 SG 10 g/10 lit water, Chlorantriniliprole 18.5 SC @ 3 ml per 10 lit T2 - Spraying of Ethion 50% EC @ 20 ml in 10 L of water at 50 per cent flowering of Chickpea followed by second spraying of Chlorantriniliprole (18.5 SC) 2.5 ml in 10 L of water after 15 days is recommended for effective management of pod borer and higher yield of Chickpea T3 - Clean cultivation and deep summer ploughing, Mixing of 100 gram Sorghum seed at the time of sowing, Sowing of two rows of coriander and mustard around crop. Erection of bird perches in chickpea field @ 50 / ha after 30 days of crop sowing, Installation pheromone traps @ 5 /ha, Spraying NSKE 5% at 50% flowering, Spraying of He ar NPV @ 500 LE/ at time of pod formation stage, Spraying of benzoate 5 SG @ 4 gram/10 liter of water at pod filling stage	Dr. PDKV Akola ,2019 Dr. VNMKV Parbhani 2017	1503 1817 1971	Kg/ha Kg/ha Kg/ha	53785 70655 78856	1.97 2.7 3.02
T1- Spray of Dicofol 18.5% EC @ 2.7ml per 10 liter of water at initiation of the pest infestation and second spray 15 to 20 days after first sprays T2 - Spraying of Diafenthiuron 50% WP @ 20 gm per 10 liter of water at initiation of pest and second spray 15 10 20 days after first spray	ICAR-CCRII,Nagpur Dr.PDKV,Akola	Result awaited	--	--	--
T1 – Feed and fodder T2 – T1 + Inj.Vit AD3+ Deworming +mineral mixture T3 – T2 + Inj GnRh + Inj. PGF2Alpha & timely AI	MAFSU, Nagpur	Induction response in treated cow T1 : 01 T2 : 03 T3 : 08 Conception rate T1 : 00 T2 : 01 T3 : 04	 Nos Nos Nos Nos Nos Nos	--	--
T1 :Deshibirds T2 :Kaveri birds T3 : CARI-Nirbhik birds	Central Avian Reasearch Institute	56 156 168	No of eggs No of eggs No of eggs	3000 /- 11720/- 14590/-	2.51 3.95 4.43
Technology option 1 (Farmer's practice) Technology option 2 - Dr. PDKV Akola developed Garlic Planter	Local Practice Dr. PDKV Akola	--	48.23 q/ha 52.49 q/ha	80000/- 142500/-	1.5 2.07
Technology option 1 (Farmer's practice) threshing by harvester and winnowing manually Technology option 2 PDKV Ajwain Seed Extractor	Local Practice Dr. PDKV Ajwain Seed Extractor	--	12.53 12.46	80083 81525.477	4.697 5.49

Maize T1 : Manual Planting Method T2 : PDKV BBF Method	 Local practice PDKV Akola	 5466 6323	 Kg/ha Kg/ha	 27393/- 37442/-	 3.26 4.53
Garlic T1 : Manual Planting method T2 : PDKV Garlic Planter	 Local practice PDKV Akola	 8107 9046	 Kg/ha Kg/ha	 95500/- 138650/-	 3.08 4.74
Ajwain- T1 : Local T2 :PDKV Ajwain seed extractor	 Local practice PDKV Akola	 1600 1600	 Kg/ha Kg/ha	 92463/- 92436/-	 3.5 3.5
Onion T1 : Local T2 : PDKV Onion seed extractor	 Local practice PDKV Akola	 350 356	 Kg/ha Kg/ha	 85000/- 86236/-	 4.1 4.2

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

Assessment (Agronomy) -I

1. **Title of Technology Assessed** : Assess the performance of new released variety of soybean cv AMS100-39(PDKV Amba) and cv AMS-MB-5-18(Suvarna Soya) in Buldana District

2. **Problem Definition** : Low monetary return from Variety JS-335 ,Varietal Monoculture
3. **Details of technologies selected for assessment :**

   T1- (Farmer's practice) (Sowing of Cv JS335)
   T2- Sowing of Cv AMS100-39 (PDKV Amba)
   T3 -Sowing of Cv AMS-MB5-18 (Suvarn Soya)

4. **Source of technology :-** PDKV, Akola
5. **Production system and thematic area :-** Varietal Evaluation
6. **Performance of the Technology with performance indicators :-**

   Table: Performance of the Technology

Performance indicator	T1 Farmers Practice (Sowing of Cv JS335)	T2 Sowing of Cv AMS100-39 (PDKV Amba)	T3 Sowing of Cv AMS-MB5-18 (Suvarn Soya)
plant height (cm)	45.2	49.4	46.2
No.of pods/plant	21.43	24.2	44.29
Yield (qt/ha)	12.58	14.45	13.14

   Suvrna soya(T3) and Amba(T2) verities of soybean gives at par yield 14.45 and 13.14 qt/ha which are 14.79 % and 4.40% higher than JS335 (T1)

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

Sr no	Prameters	Matrix scoring
1	Plant Height	3
2	No of Pods per plant	5
3	No of Grains per pods	2
4	Resistance to pod scattering	5
5	Resistance to pest and Diseases	4
6	Yield	3

8. **Final recommendation for micro level situation** : Variety PDKV Suvarn soya and PDKV Amba are to be are to be a substitute to JS335
9. **Constraints identified and feedback for research** : Variety PDKV Suvarn soya bears two grain seeded pods farmers preferred three grain seeded pods
1. **Process of farmer's participation and their reaction**: Assessment has been taken as per problem diagnosed. Village-wise meeting was conducted for selection of farmers. After selecting farmers, training has been given and made aware about complete procedure for assessment. Regular visit to farmers field were arranged and necessary suggestions were given to Farmers. From the feedback of farmers it is reveled that variety PDKV Suvarn soya bears two grain seeded pods farmers preferred three grain seeded pods.

Assessment (Agronomy)-II

1. **Title of Technology Assessed** : Assess the performance of Foliar spray of 25 PPM Gibrelic acid (13.9 gram GA in 500 lit. water per ha on Bt Cotton at the time of square formation and boll development stage

2. **Problem Definition** : Heavy Shading of Square,Flower, and boll due to physiological Stress in Rainfed Bt.Cotton
3. **Details of technologies selected for assessment :**
   T1- (Farmer's practice) -No.Foliar spray of GA
   T2- Foliar spray of GA @13.9 gm/ha at the time of square formation and boll development stage

4. **Source of technology :-** PDKV, Akola
5. **Production system and thematic area :-** Crop Management
6. **Performance of the Technology with performance indicators :-**
   Table: Performance of the Technology

Performance indicator	T1 No.Foliar spray of GA	T2 Foliar spray of GA @13.9 gm/ha at the time of square formation and boll development stage
plant height (cm)	118.08	125.69
No.of Bolls/plant	12.23	13.62
Bolls weight (gm)	4.20	4.29
Rain water Use Efficiency(Kg/mm/ha)	1.88	2.07
Yield (qt/ha)	12.61	14.02

Two foliar applications of 25 ppm GA at flowering and boll development stages recorded less square drop, more bolls/ plant and boll weight (g), higher seed cotton yield (11.18 % more than control), higher rain water use efficiency and gross returns.

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

Sr no	Prameters	Matrix scoring
1	Plant Height	4
2	No of bolls per plant	5
3	Boll weight	4
4	Boll retaintation %	5
5	Size of Leaves	4

8. **Final recommendation for micro level situation** : Need to Assess for Next Year
9. **Constraints identified and feedback for research** : No constraint identified
10. Process of farmer's participation and their reaction: Assessment has been taken as per problem diagnosed. Village-wise meeting was conducted for selection of farmers. After selecting farmers, training has been given and made aware about complete procedure for assessment. Regular visit to farmers field were arranged and necessary suggestions were given to Farmers. From the feedback of farmers it is reveled that there is heavy Heavy Shading of Square, Flower and boll in Rainfed Bt.Cotton, after Spraying GA square shading reduced and more no. of Bolls retain

Assessment (Horticulture) –III

1. Title of Technology Assessed : **Assessment of Turmeric special micronutrient as foliar Spray in Turmeric crop**

2. Problem definition : 1. Micronutrient deficiency on foliage
2. More prone to disease incidence

3. Details of technologies selected for assessment:

T_1 – Farmers Practise (Local treatment)
T2 – Foliar spray of Turmeric special micronutrient @ 5gm/lit
T3 - Foliar application of Boron, Fe & Zn @ 375gm/acre at vegetative growth stage, two sprays at 25 days interval

4. Source of technology : Indian Institute of Spices Research, Kozhikode, Kerala

Tamil Nadu Agriculture University, Coimbatore

5. Production system thematic area : Medium to light soil, N level low, P level low, K level high Irrigated, Rainfall ranges from 650-750mm, Temperature 20-45^{0}C

6. Performance of the Technology with performance indicators

Table: Performance of the Technology with performance indicators

Performance indicator	T1(farmers treatment)	T2 (Turmeric special micronutrient)	T3 (Foliar spary of micronutrient)
Average yield, qt/ha	212.07	247.53	232.14
Average crop duration, days	279	283	281

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

Sr. No.	Parameters	Matrix scoring
1	Average yield/ha	1
2	Average crop duration	2
3	Affordability	3
4	Acceptability	2

8. Final recommendation for micro level situation.

Foliar spray of Turmeric special micronutrient is cheap & easy method for quality improvement

9. Constrain identified and feedback for research: Unavailability of Turmeric special micronutrient in

Region.

10. Process of farmer's participation and their reaction.

Assessment has been taken as per problem diagnosed, after village-wise meeting was conducted for selection of farmers. After selection of farmers, training has been given and made aware about complete procedure for assessment. Regular visit of farmers were arranged and necessary suggestions were given to farmers, farmers concluded after taking this assessment that, foliar spray of Turmeric special micronutrient is effective.

Assessment (Horticulture) –IV

1. **Title of Technology Assessed**: Assessment on Onion variety Bhima Shakti and Bhima Kiran Onion varieties over local variety for better storability & yield in Buldhana district

2. Problem definition: 1. Uniformity of bulb size, storability & yield losses in storage

3. Details of technologies selected for assessment:

T1 – Farmers Practise (Local variety)
T2 – BHIMA SHAKTI variety
T3 – BHIMA KIRAN variety

4. Source of technology: Directorate of Onion & Garlic Research Institute, Rajgurunagar Pune

5. Production system thematic area :

Medium to light soil, N level low, P level low, K level high, irrigated, rainfall ranges from 650-750mm, Temperature 20-45^{0}C

6. Performance of the Technology with performance indicators

Table: Performance of the Technology with performance indicators

Performance indicator	T1 (Farmers Practice)	T2 (Bhima Shakti)	T3 (Bhima Kiran)
Avg yield, qt/ha	360	458.06	438.05
Avg onion bulb weight, gm	85.76	96.84	98.43
B:C ratio	3.06	4.01	3.83

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

Sr. No.	Parameters	Matrix scoring
1	Avg yield/ha	1
2	No. Of days to mature	2
3	Affordability	3
4	Acceptability	3

8. Final recommendation for micro level situation.

Onion variety Bhima Shakti is good in term of germination, yield and storability

9. Constrain identified and feedback for research: Onion variety availability is main constrain

10. Process of farmers participation and their reaction.

Assessment has been taken as per problem diagnosed. Village-wise meeting was conducted for selection of farmers. After selection of farmers, training has been given and made aware about complete procedure for assessment. Regular visits of farmers were arranged and necessary suggestions were given to farmers. As per feedback of fartmres, the bio- fertilizers consortium application is less effective in early stage.

Assessment (Horticulture) –V

1. **Title of Technology Assessed**: Assesment on Garlic variety G-41 and AKG-7 over local variety for better storability & yield in Buldana district

2. Problem definition:

3. Details of technologies selected for assessment:

T_1 – Farmers Practise (Local treatment)
T2 – cv G-41
T3 - vc AKG-7

4. Source of technology: Directorate of Onion & Garlic Research Institute, Rajgurunagar Pune

5. Production system thematic area :

Medium to light soil, N level low, P level low, K level high, irrigated, rainfall ranges from 650-750mm, Temperature 20-45^{0}C

6. Performance of the Technology with performance indicators

Table: Performance of the Technology with performance indicators

Performance indicator	T1 (Farmers Practice)	T2 (cv G-41)	T3 (AKG-7)
Average yield, qt/ha	105.89	117.30	109.36
Average crop duration, days	114.21	130.52	127.66

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

Sr. No.	Parameters	Matrix scoring
1	Avg yield/ha	1
2	No. Of days to mature	2
3	Affordability	3
4	Acceptability	2

8. Final recommendation for micro level situation.

Garlic variety Bhima kiran is good in yield, storage

9. Constrain identified and feedback for research: Garlic is use in indian culinary and use as spice for its pungency hence need pungent, bold finger and long storability. However bold finger is less in both varieties

10. Process of farmers participation and their reaction.

Assessment has been taken as per problem diagnosed. Village-wise meeting was conducted for selection of farmers. After selection of farmers, training has been given and made aware about complete procedure for assessment. Regular visits of farmers were arranged and necessary suggestions were given to farmers. As per feedback of fartmres, the bio- fertilizers consortium application is less effective in early stage.

Assessment (PP)-VI

1. **Title of Technology Assessed** -- Management of Helicoverpa armigera in chickpea
2. **Problem Definition** -- Heavy infestation of Helicoverpa armigera, improper pest management
3. **Details of technologies selected for assessment**

T1 : Farmer practice - 2 to 3 sprays of Profenophos @ 40 ml , Emamectin Benzoate 5 SG 10 g/10 lit water, Chlorantriniliprole 18.5 SC @ 3 ml per 10 lit

T2 : Spraying of Ethion 50% EC @ 20 ml in 10 L of water at 50 per cent flowering of Chickpea followed by second spraying of Chlorantriniliprole (18.5 SC) 2.5 ml in 10 lit of water after 15 days is recommended for effective management of pod borer and higher yield of Chickpea

T3 : Clean cultivation and deep summer ploughing, Mixing of 100 gram Sorghum seed at the time of sowing, Sowing of two rows of coriander and mustard around crop. Erection of bird perches in chickpea field @ 50 / ha after 30 days of crop sowing, Installation pheromone traps @ 5 /ha, Spraying NSKE 5% at 50% flowering, Spraying of He ar NPV @ 500 LE at time of pod formation stage, Spraying of benzoate 5 SG @ 4 gram/10 liter of water at pod filling stage

4. **Source of technology --** Dr. PDKV Akola ,2019 2) Dr. VNMKV Parbhani 2017
5. **Production system and thematic area** -- Rabi irrigated farming system
6. **Performance of the Technology with performance indicators**

Performance indicator	**T1**	**T2**	**T3**
Larvae per MRL	2.70	0.80	0.60
Yield(qt/hq)	15.03	18.17	19.17
B:C		2.7	3.02
Increase in yield, %		20.91	31.18

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

Sr no	**Prameters**	**Matrix scoring**	
		T2	**T3**
1	Larvae per MRL	3	2
2	Cost of PP	2	3
3	Yield (qt/ha)	3	2
4	Affordability	3	3
5	Acceptability	2	4

8. **Final recommendation for micro level situation**
   Both the technologes are effective for management of Helicoverpa in chickpea.

9. **Constraints identified and feedback for research and developmental departments ---**
   He ar NPV @ 500 LE/ is not easily available in market
10. **Process of farmers participation and their reaction**
    Assessment has been taken as per problem diagnosed, after that village-wise meeting was conducted for selection of farmers. After selecting farmers, training has been given and made aware about complete procedure for assessment. Regular visit of farmers were arranged and necessary suggestions were given to Farmers,nand Farmers says that Over all two technology superior over farmer practice.

Assessment (PP)-VII

1. **Title of Technology Assessed -** Management of Mites in Mandarin

2. **Problem Definition** - Heavy infestation of mites and improper pest management , Low quality of Fruits

3. **Details of technologies selected for assessment**
   T1- Spray of Dicofol 18.5% EC @ 2.7ml per 10 liter of water at initiation of the pest infestation and second spray 15 to 20 days after first spray
   T2 - Spraying of Diafenthiuron 50% WP @ 20 gm per 10 liter of water at initiation of pest and second spray 15 10 20 days after first spray

4. **Source of technology --** ICAR-CICRI , Nagpur - Dr. PDKV Akola

5. **Production system and thematic area** -- Irrigated farming system & Integrated pest management

6. **Performance of the Technology with performance indicators**

Performance indicator	**T1**	**T2**	**T3**
Per cent infestation of mites	Result awaited		
Yield(qt/hq)			
B:C			
Increase in Yield			

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

Sr no	**Prameters**	**Matrix scoring**	
		T2	**T3**
1	Larvae per MRL	Result awaited	
2	Cost of PP		
3	Yield (qt/ha)		
4	Affordability		
5	Acceptability		

8. **Final recommendation for micro level situation**
   Result awaited.

9. **Constraints identified and feedback for research and developmental departments ---**
   Result awaited.

10. **Process of farmers participation and their reaction**
    Result awaited.

Assessment (Agril. Engg.)- VIII

1. **Title of Technology Assessed:** Use of PDKV BBF Planter for planting of maize crop
2. **Problem Definition:** labour and time-consuming planting operation. Unavailability of labour
3. **Details of technologies selected for assessment**
   T1 : Planting manually (Farmers Practice)
   T2: Use of PDKV maize palnter (Improved Practice)
4. **Source of technology:** PDKV Akola
5. **Production system and thematic area:** Cereal crop / Farm Machinery
6. **Performance of the Technology with performance indicator:**
   The performance parameters of the machine were evaluated such as

Performance parameter	T1: Manual Planting(Farmers Practice)	T2: PDKV Garlic planter (Improved Practice)
Yield (q/ha)	54.66	63.23
Net Return (Rs/ha)	27393/-	37442/-
B:C Ratio	3.26	4.53
Cost of Operation Rs/ha	3600/-	2000/-
Labour requirement	18	02
Field capacity	0.125 ha/hr	0.4 ha/hr
Time of Operation	20 hr/ha	2.5 hr/ha
Acceptability	1	4
Affordbility	1	4
Availability	2	2

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

Sr. No.	Parameters	Matrix scoring	
		T1: Sowing manually by dibbling method	T2: PDKV Garlic Planter
1	Labour reduction	2	4
2	Time saving	2	4
3	Drudgery reduction in operation	2	4
4	Availability	3	1
5	Affordability	3	1
6	Acceptability	1	3

8. **Final recommendation for micro level situation**
   It is recommended to use PDKV BBF Planter for sowing of Maize crop
9. **Constraints identified and feedback for research and developmental departments**:
   Unavailability and low adaptation
10. **Process of farmers participation and their reaction**

Village wise meetings were conducted for selection of farmers. Trainings were conducted as awareness about assessment. Regular field visits were conducted to check and observe plant growth parameters such as no. leafs, plant height, no. of branches in various growing stages. Necessary observations were taken from farmer regularly.

Assessment (Agril. Engg.)- IX

1. **Title of Technology Assessed:** Performance evaluation of PDKV Garlic Planter

2 **Problem Definition:** Labour and time-consuming seeding operation

3 **Details of technologies selected for assessment**

T1 : Manual Planting(Farmers Practice)

T2: PDKV Garlic planter (Improved Practice)

4 **Source of technology:** PDKV Akola

5 **Production system and thematic area:** Tuber crop production / Farm Machinery

6 **Performance of the Technology with performance indicator:**

The performance parameters of the machine were evaluated such as

Performance parameter	T1: Manual Planting(Farmers Practice)	T2: PDKV Garlic planter (Improved Practice)
Yield (q/ha)	81.08	90.46
Net Return (Rs/ha)	95500/-	138650/-
B:C Ratio	3.08	4.74
Cost of Operation Rs/ha	20000/-	2500/-
Labour requirement	100	02
Field capacity	0.003	0.4
Time of Operation	800hr/ha	2.5 hr/ha
Acceptability	1	4
Affordbility	2	2
Availability	2	1

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

Sr. No.	Parameters	Matrix scoring	
		T1: Sowing manually by dibbling method	T2: PDKV Garlic Planter
1	Labour reduction	2	4
2	Time saving	2	4
3	Drudgery reduction in operation	2	4
4	Availability	3	1
5	Affordability	3	1
6	Acceptability	2	4

8. **Final recommendation for micro level situation**

For garlic planting operation it is recommended use of PDKV Garlic Planter

9. **Constraints identified and feedback for research and developmental departments**:

1. Unavailability of garlic planter in market
2. Seed damage should be minimized

10. **Process of farmers participation and their reaction**

Village wise meetings were conducted for selection of farmers. Trainings were conducted as awareness about assessment. Regular field visits were conducted to check and observe plant growth parameters such as no. leafs, plant height, no. of branches in various growing stages. Necessary observations were taken from farmer regularly.

Assessment (Agril. Engg.)- X

1. **Title of Technology Assessed:** Performance evaluation of PDKV Ajwain seed extractor

2 **Problem Definition:** Labour and time-consuming threshing operation. Unavailability of crop specific harvester

3 **Details of technologies selected for assessment**

T1 (Farmers Practice) : Local threshingThreshing (Harvester +winnowing manually 4 labours /ha)

T2: PDKV Ajwain Seed extractor (Improved Practice)

4 **Source of technology:** PDKV Akola

5 **Production system and thematic area:** Spices crop production / Farm Machinery

6 **Performance of the Technology with performance indicator:**

The performance parameters of the machine were evaluated such as

Performance parameter	T1: Manual Planting(Farmers Practice)	T2: PDKV AjwainSeed Extractor (Improved Practice)
Yield (q/ha)	12.53	12.46
Net Return (Rs/ha)	80083	81525.77
B:C Ratio	4.97	5.49
Cost of Operation Rs/ha	1	4
Labour requirement	1	4
Field capacity	1	4
Time of Operation	1	4
Acceptability	2	3
Affordbility	2	2
Availability	3	1

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

Sr. No.	Parameters	Matrix scoring	
		T1: local method	T2: PDKV Ajwain seed extractor
1	Labour reduction	2	4
2	Time saving	2	4
3	Drudgery reduction in operation	2	4
4	Availability	3	1
5	Affordability	3	1
6	Acceptability	2	2

8. **Final recommendation for micro level situation**

Far Ajwain threshing better to use Ajwain Seed exreactor

9. **Constraints identified and feedback for research and developmental departments**:

1. Unavailability of ajwain threshers
2. Power source should be change and machine capacity must be increase

10. **Process of farmers participation and their reaction**

Village wise meetings were conducted for selection of farmers. Trainings were conducted as awareness about assessment. Regular field visits were conducted to check and observe plant growth parameters such as no. leafs, plant height, no. of branches in various growing stages. Necessary observations were taken from farmer regularly.

Assessment (Agril. Engg.)- XI

1. **Title of Technology Assessed:** Performance evaluation of PDKV Onion seed extractor
2. **Problem Definition:** low seed germination due to affect high RPM in thresher. labour and time-consuming threshing operation
3. **Details of technologies selected for assessment**
   T1 : Thresher (Farmers Practice)
   T2: PDKV Onion seed extractor (Improved Practice)
4. **Source of technology:** PDKV Akola
5. **Production system and thematic area:** Onion crop production / Post Harvest Management
6. **Performance of the Technology with performance indicator:**
   The performance parameters of the machine were evaluated such as

Performance parameter	T1: Manual Planting(Farmers Practice)	T2: PDKV AjwainSeed Extractor (Improved Practice)
Yield (q/ha)	3.50	3.50
Net Return (Rs/ha)	85000/-	86235/-
B:C Ratio	4.1	4.2
Cost of Operation Rs/ha	500/-	600/-
Labour requirement	06	05
Field capacity	2.7	0.43
Time of Operation	1.29	8.13
Acceptability	4	1
Affordbility	4	1
Availability	4	1

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

Sr. No.	Parameters	Matrix scoring	
		T1: local method	T2: PDKV Ajwain seed extractor
1	Labour reduction	2	2
2	Time saving	2	2
3	Drudgery reduction in operation	2	3
4	Availability	3	1
5	Affordability	3	1
6	Acceptability	4	2

8. **Final recommendation for micro level situation**
   Onion seed extraction machine developed by Dr. PDKV Akola need to be refinished with fulfilling all necessary refinements
9. **Constraints identified and feedback for research and developmental departments**:
   Unavailability of onion seed extractor in market
10. **Process of farmers participation and their reaction**
    Village wise meetings were conducted for selection of farmers. Trainings were conducted as awareness about assessment

Assessment (Vet. Sci) – XII

1. Title of Technology Assessed: Induction of oestrous in anoestrous cow.

2. Problem definition

In Buldana District, most of the farmers are rearing dairy cows, there is a major problem of failure of oestrous, infertility, repeat breeding, low conception rate due to this problem animals

3. Details of technologies selected for assessment

T1: Feed and fodder

T2: T1 + Inj.Vit AD3+ Deworming +mineral mixture

T3: T2 + Inj GnRh + Inj. PGF2Alpha

4. Source of technology : MAFSU, Nagpur

5. Production system thematic area : Dairy Management & production

6. Performance of the Technology with performance indicators

Table: Performance of the Technology with performance indicators

Performance indicator	**T1**	**T2**	**T3**
Oestrous induction response in treated cow	01	03	08
Conception rate	00	01	04
Increase in percentage	62.56 %		

Description of the Result

When the Technology was assessed on 10 farmer's field gives 62.50 % more induction response and conception rate 75 % than Farmer practice

7. Feedback, matrix scoring of various technology parameters done through farmers Participation / other scoring techniques

Due to synchronization with Ovisynch protocol animal shows better oestrous induction response 70 % and conception rate 60 % gives better result,

Sr no	**Prameters**	**Matrix scoring**
1	Oestrous induction response in treated cow	4
2	Conception rate	3

8. Final recommendation for micro level situation

This technology performs well and need to demonstrated on large scale

9. Constraints identified and feedback for research: No remarkable constraints found

10. Process of farmers participation and their reaction:

Assessment has been taken as per problem diagnosed, after that village-wise meeting was conducted for selection of farmers. After selecting farmers, training has been given and made aware about complete procedure for assessment. Regular visit of farmers were arranged and necessary suggestions were given to Farmers, and farmers said that this technology gives better result.

Assessment (Vet. Sci) – XIII

1. Title of Technology Assessed: To assess the performance of new variety CARI-Nirbhik breed under

2. Problem definition

In Buldana District, most of the farmers are rearing local birds for backyard poultry , there is a major problem of low yield of eggs production ,low weight gain, low growth rate,. Due to which low growth rate and low eggs production resulting economic loss.

3. Details of technologies selected for assessment

T1: Deshi birds
T2: Kaveri birds (1 months age)
T3: CARI-Nirbhik birds (1 months age)

4. Source of technology : Central Avian Reasearch Institute, Izzatnagar

5. Production system thematic area : Poultry production

6. Performance of the Technology with performance indicators

Table: Performance of the Technology with performance indicators

Performance indicator	T1	T2	T3
Avg. body weight gain (kg/ bird)	1.300	2.400	2.500
Avg. Eggs production (No)	56	156	168
Net Returns (Rs/ha)	3000	11720	14590
B:C	2.51	3.95	4.43
Increase in Yield	66.66 %		

Description of the Result

When the Technology was assessed on 10 farmer's field gives 74.41 % more Av. eggs production and avg. weight gain 46.29 % than Farmer practice

7. Feedback, matrix scoring of various technology parameters done through farmers Participation / other scoring techniques

This technology rearing CARI-Nirbhik birds gives better result

Sr no	Prameters	Matrix scoring
1	Avg. body weight gain	3
2	Avg. Eggs production	4
3	Acceptability	4

8. Final recommendation for micro level situation

This technology performs well and need to demonstrate on large scale

9. Constraints identified and feedback for research: No remarkable constraints found

10. Process of farmers participation and their reaction:

Assessment has been taken as per problem diagnosed, after that village-wise meeting was conducted for selection of farmers. After selecting farmers, training has been given and made aware about complete procedure for assessment. Regular visit of farmers were arranged and necessary suggestions were given to Farmers, and farmers taught Cari-Nirbhik breed is given better result

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	**Cereals**						
	--						
2	**Pulses Crop**						
	Summer Greengram	ICM	Variety PDM139and Seed Treatment of Biofertilizer and Vitavax power + Thimathoxan30FS	Demonstration,,Field Day,Training	30	300	100
	Pigeonpea	ICM	Seed Treatment of Biofertilizer and Vitavax power + Thimathoxan30FS	Demonstration,,Field Day,Training	500	10000	10000
	Chickpea	ICM	Variety+ICM	Demonstration,,Field Day,Training	**120**	**1200**	**1200**
	Pigeon pea	IDM	Wilt management in Pigeon pea	Demonstration,,Field Day,Training	65	4350	22750
3	**Oilseed Crop**						
	Soybean	ICM	Seed Treatment of Biofertilizer and Vitavax power + Thimathoxan30FS	Demonstration,,Field Day,Training	450	4500	5000
	Soybean	IPM	Stem Fly Management in Soybean	Demonstration,,Field Day,Training	57	2587	102557
	Linseed	INM	Variety NL260+INM	Demonstration,,Field Day,Training	30	150	50
	Summer Groundnut	ICM	ICM	Demonstration,,Field Day,Training	30	300	200
4	**Commercial Crop**						
	Cotton	IPM	Pink bollworm management	Demonstration,,Field Day,Training	75	5885	121258

5	**Horticultural Crops**						
	Turmeric	Varietal introduction	Demonstration of Turmeric variety IISR Pragati	Training, extension literature	26	56	42
	Chilli	Nutrient management	Spray of NAA @ 50ppm at 6,8 & 10 weeks after transplanting	Training, extension literature	38	70	73
	Custard Apple	Integrated Crop Management	Pruning of plant 25% after 75 days of harvest	Training, extension literature	59	189	97
6	**Farm Implements**						
	Cotton	Farm Machinery	Subsoiler	FLD , Trainings	4	15	6
	Cotton	Farm Machinery	Cotton Slasher	FLD , Trainings	12	25	25
	Groundnut	Farm Machinery	BBF	FLD , Trainings	6	25	25
7	**Livestock**						
	Dairy animals	Feed and fodder	Performance of Hybrid napier varity of fodder CO5	FLD,Trainings,	08	20	--
	Back yard poultry	Poultry Management	Performance new variety Kaveri breed under back yard poultry	FLD,Trainings,	15	30	--

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 / Enterprise	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
Cereals										
	--									
Pulses Crops										
1	Greengram	ICM	Variety + ICM	Summer	10	10	24	1	25	--

				2023						
2	Pigeonpea	ICM	Variety + ICM	Kharif 2023	10	10	16	9	25	--
3	Pigeonpea	IDM	Wilt management in Pigeaon pea	Kharif 2023	10	10	03	22	25	--
4	Pigeonpea	IPM	Pod Borer management in Pigeaon pea	Kharif 2023	10	10	03	22	25	--
Oilseed Crops										
1	Groundnut	ICM	ICM	Summer 2023	20	20	36	14	50	--
2	Soybean	Variety	Variety	Kharif 2023	20	20	42	8	50	--
3	Soybean	IPM	Stem Fly Management in Soybean	Kharif 2023	10	10	03	22	25	--
Cotton & Commercial Crops										
1	Cotton	IPM	PBW Management in Cotton	Kharif 2023	10	10	03	22	25	--
Horticultural Crops										
01	Orange	Nutrient management	Microbial consortium develops by IISR, Kozhikode to improve nutrient use efficiency in Nagpur Mandarin	2022-23	5.6	5.6	12	02	14	--
02	Turmeric	Varietal evaluation	Varietal demonstration of IISR Pragati	2022-23	5.6	5.6	01	13	14	--
03	Onion	Post-harvest management	Onion Storage structure by application of perforated P.V.C. pipe Insertion of 5mtr PVC pies having size 5*1.5*1meter * 4 pipes in between bulb	2022-23	00	00	02	05	07	--

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					
Cereals											
--											
Pulses											
Summer Greengram	Summer 2023	Irrigated	Medium	Low	Low	H	Wheat	Last week of Feb.to first week of March	First week of May	691	51
Pigeonpea	Kharif 2023	Rainfed	Mediumto Heavy	Low	Low	VH	cotton	Last week of June to First week of July	Last week of Jan	691	51
Pigeaon pea	Kharif 2023	Rainfed	Heavy to Medum	Low	low	High	Maize	First fortngh of July 2023	Last week of January 2024	691	51
Pigeaon pea	Kharif 2023	Irrigated	Heavy to Medum	Low	low	High	cotton	First fortngh of July 2023	Last week of January 2024	691	51
Oilseed											
Summer Groundnut	Summer 2023	Irrigated	Medium	Low	Low	H	Cotton	First fortnighrt of Jan to first week of Feb.	Last week of May	691	51
Soybean	Kharif 2023	Rainfed	Medium to Heavy	Low	Low	VH	cotton	Last week of June to First week of July	First week of Oct	691	51
Soybean	Kharif 2023	Rainfed	Medium to Heavy soil	Low	Low	High	Cotton	First fortngh of July 2023	2nd fortnight of October 2023	691	51
Cotton & Commercial Crops											
Cotton	Kharif - 2023	Rainfed	Medium to Heavy soil	Low	Low	High	Soybean	2nd & 3rd week of June 2022	Last week of December 2023	691	51
Horticultural Crops											
Orange	Kharif 2022-23	Irrigated	Deep to medium soil	Low	Low	High	--	Year - 2016	Feb-2023	691	51
Turmeric	Kharif-2022-23	Irrigated	Deep to medium soil	Low	Low	High	Onion	June 2022	Mar.2023	691	51
Onion	Rabi 2022-23	Irrigated	Deep to medium soil	Low	Low	High	--	Dec. 2022	April 2023	691	51

Technical Feedback on the demonstrated technologies

S.No.	Feedback
Pulses Crops	
Summer Greengram	Summer Greengram Variety PDM139 gives 24.08% more yield than Local Variety and Resistant to Yellow vain Mosaic
Pigeon Pea	Variety BDN716 is Resistant yo wilt and and gives 24.13% more Yield
Pigeon pea - Wilt management	Seed treatment of vtvax power and tricoderma are effective for managemt of wilt and gives more yield than farmer practice
Pigeon pea – Pod borer complex	This technology gives 26.63 more yield than farmer practice.
Oilseed Crops	
Summer Gound Nut	Use of sulphuar and micronutrient and timely spraying of fungicide increases yield by 27,20%
Soybean	Variety Phule Sangam Gives15.18% More Yield Than JS335
Soybean (PP)	Seed treatment of Thaimethoxam 30 FS @ 10 ml per kg seed for effective management of stem fl and gves 24.85 per cent more yield than farmer practice'
Cotton & Commercial Crops	
Cotton	This technology is effective and gives 23.85 per cent more yield in cotton.
Horticultural Crops	
Orange	Incorporation of micronutrient should be done.
Turmeric	Variety should be more fingers per bunch
Onion	More ventilation needed

Farmers' reactions on specific technologies

S.No.	Feedback
Pulses Crops	
Summer Greengram	Summer Greengram Variety PDM139 gives more yield than Local Variety and Ressistant to Yellow vain Mosaic
Pigeon Pea	Variety BDN716 is Resistant to wilt and and gives more Yield
Pigraaon pea - wilt management	Seed treatment of vtvax power and tricoderma are effective for managemt of wilt and gives more yield than farmer practice
Pigeaon pea – pod borer complex	Effective for management of pod borer complex

Oilseed Crops	
Summer Ground Nut	Due to use of sulphur and micronutrient pods filling is better
Soybean	Variety Phule Sangam Gives More Yield Than JS335
Soybean - stem fly	Seed treatment of Thaimethoxam 30 FS @ 10 ml per kg seed for effective management of stem fl y , but primary cost is more
Cotton & Commercial Crops	
Cotton - PBW management	Schedule of this technologies id effective for management of Piink bollworm management
Horticultural Crops	
Orange	Good for organic nutrient input addition.
Turmeric	Good for processing, early harvesting variety
Onion	Onion storability improves.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	5	9.1.23,15.2.23,25.3.23,26.3.23,19.10.23	333	
2	Farmers Training	10	01.7..2023,03.7.23,31.08.23,10.10.23,27.10.2023, 3.7.2023,6.10.2023,3.2.2023, 8/5/23,8/8/23,15/4/23 13/9/23,10/6/23,13/1/23	278	
3	Media coverage	14	--	--	
4	Training for extension functionaries	3	6.2.2023, 30.6.2023,26.9.2023	112	

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	Varietal	Variety KDS726	KDS726	50	20	15.60	12.40	13.02	11.30	15.18	37903	67679	29776	1.79	38260	58762	20502	1.54
Soybean (PP)	IPM	Stem Fly Management in Soybean	KDS-726	25	10.0	20.80	18.00	20.18	16.23	24.85	34225	90180	55955	2.63	33250	73035	40000	2.19
Groundnut	Nutrient Management	ICM	TAG-24	50	20	31.6	25.04	26.87	21.12	27.23	64045	185406	121361	2.89	58749	145758	87009	2.48

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeonpea	ICM	Variety+ICM	BDN716	25	10	8.8	6.44	7.33	5.91	24.03	23766	68034	44268	2.86	23606	54807	31201	2.32
Greengram	ICM	Variety+ICM	PDM139	25	10	14.7	13	13.46	10.85	24.06	30542	89547	59005	2.93	28919	72167	43248	2.50
Pigeon pea	IDM	Wilt management in Pigeaon pea	BDN-716	25	10.0	11.20	8.40	9.25	7.50	23.33	21625	83250	61625	3.84	21875	65250	43375	2.98
Pigeon pea	IPM	Pod Borer management in Pigeaon pea	BDN-716	25	10.0	11.60	9.60	10.51	8.30	26.63	21375	94590	73215	4.48	21625	74700	53075	3.45

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Commercial Crop																			
cotton	IPM	PBW Management in Cotton	Super cot	25	10.0	24.80	22.40	24.93	20.13	23.85	46000	179496	133496	3.90	51500	144936	93436	2.81	

FLD on Other crops (Horticulture)

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Fruit Crop																			
Orange	Integrated Nutrient Management	Microbial consortium develop by IISR, Kozhikode to improve nutrient use efficiency in Nagpur Mandarin	14	5.6	142.36	123.73	135.45	124.75	13.34	--	--	125000/-	254260/-	129260/	2.03	132000/-	217300/-	85300/-	1.64
Spices & condiments																			
Turmeric	Variety Introduction	Varietal demonstration of IISR Pragati	14	5.6	213.56	163.25	190.76	185.39	9.95	--	--	150420/-	228950/-	78492/-	1.52	162500/-	222468/-	66412/-	1.36
Vegetables																			
Onion	Resource Conservation Technologies	Onion Storage structure by application of perforated P.V.C. pipe Insertion of 5mtr PVC pies having size 5*1.5*1meter * 4 pipes in between bulb	07	00	162.35	140.20	153.20	127.38	33.02	--	--	17500/-	--	112720/-	7.44	16500/-	101904/-	95773/-	6.17

Frontline Demonstration on Nutri cereals – Nil

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 and fodder management	Performance of Hybrid napier varity of fodder CO5	10	500 grass roots slips each	Avg.Green fodder yield 33. 35	28.25	15.29 %	Avg.milk yield 3.900 lit	3.00 lit	98650 /-	333500/-	234850/-	3.38	98650/-	282500/-	183850/-	2.87
Poultry	Backyard poultry	performance new variety Kaveri breed under back yard poultry	10	10 birds of 1 months age	Avg.Eggs production 162 nos	58 nos	70.51	Avg.weight gain 2.500 kg	1.400 kg	3960/-	15880/-	11920/-	4..01	1980/-	4980/-	3000/-	2.51

FLD on Fisheries --- NIL

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

FLD on Other enterprises -- Nil

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 -- NIL

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

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total
BBF Planter	Groundnut	Use of BBF Planter for enhancing productivity of groundnut crop	25	10	Yield, qt/ha Seed saving, kg Net Return, Rs/ha B:C	32.44 112.5 107480/- 3.79	26.71 150 81695/- 3.12	21.45 % 33.34% 25785/-	0	02	05	07	0	1400/-	02	1400/-
Cotton slasher	Cotton	Use of cotton slasher	25	10	Biomass utilized t/ha Labour req.	4.68 0.25	0.2 17	224% 17	0	0	17	17	0	1800/-		1800/-
BBF Planter	Maize	Use of BBF Planter for sowing Maize crop	25	10	Yield q/ha Net Return Rs/ha Cost of Operation Rs/ha.	54.66 27393/- 3600/-	64.23 37442/- 2000/-	ANR Rs.10049/- 44.45% reduction.	0	17	05	22	0	1600/-	02	1600/-
Subsoiler	Cotton	Use of Subsoiler for ill drain soils	25	10	Yield m.c. %	15.6 28.83	13.45 21.96	15.98% 22.10	0	0	0	0	2600/-	0	0	2600/-

FLD on Other Enterprise: Nil

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

FLD on Demonstration details on crop hybrids -- Nil

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

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

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I. Crop Production										
Weed Management	01	74	0	74	6	3	9	80	3	83
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	02	35	22	57	0	54	54	35	76	111
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Others (pl. specify) Natural Farming	04	100	5	105	10	18	28	110	23	133
Total	**7**	**209**	**27**	**236**	**16**	**75**	**91**	**225**	**102**	**327**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	0	0	0	0	0	0	0	0	0	0
Total (a)	0	0	0	0	0	0	0	0	0	0
b) Fruits										
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	01	57	17	74	15	00	15	72	17	89
Total (b)	**01**	**57**	**17**	**74**	**15**	**00**	**15**	**72**	**17**	**89**
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Total (c)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Total (d)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management	0	0	0	0	0	0	0	0	0	0

technology										
Processing and value addition	05	30	71	101	33	5	38	63	76	139
Total (f)	**05**	**30**	**71**	**101**	**33**	**5**	**38**	**63**	**76**	**139**
g) Medicinal and Aromatic Plants										
Nursery management	0	0	0	0	0	0	0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	**6**	**87**	**88**	**175**	**48**	**5**	**53**	**135**	**93**	**228**
III Soil Health and Fertility Management										
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management										
Dairy Management	0	0	0	0	0	0	0	0	0	0
Poultry Management	02	09	02	11	09	03	12	19	05	23
Disease Management	01	17	0	17	2	0	2	19	0	19
Feed & fodder technology	01	13	0	13	02	0	02	15	0	15
Sheep & Goat rearing	02	26	12	38	08	0	08	34	12	46
Total	**6**	**65**	**14**	**79**	**21**	**3**	**24**	**87**	**17**	**103**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0
Value addition	1	0	32	32	0	3	3	0	35	35
Total	**1**	**0**	**32**	**32**	**0**	**3**	**3**	**0**	**35**	**35**
VI Agril. Engineering										
Farm Machinery and its maintenance	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
VII Plant Protection										
Integrated Disease	0	0	0	0	0	0	0	0	0	0

Management										
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
VIII Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IX Production of Inputs at site										
Bio-fertilizer production	1	8	20	28	0	2	2	8	22	30
Seed Production	03	43	00	43	02	00	02	45	00	45
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0	0	0
Total	**4**	**51**	**20**	**71**	**2**	**2**	**4**	**53**	**22**	**75**
X Capacity Building and Group Dynamics										
Group dynamics										
Entrepreneurial development of farmers/youths	6	17	80	97	3	13	16	20	93	113
Total	**6**	**17**	**80**	**97**	**3**	**13**	**16**	**20**	**93**	**113**
XI Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL										

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I. Crop Production										
Resource Conservation Technologies	02	34	0	34	03	0	03	37	0	37
Cropping Systems	1	14	7	21	5	0	5	19	7	26
Crop Diversification	3	538	59	597	138	15	153	676	74	750
Integrated Crop Management	1	0	0	0	4	15	19	4	15	19
Integrated Crop Management	3	96	38	134	17	8	25	113	46	159
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Intrgrated crop management	02	26	07	33	35	05	40	61	12	73
Others	0	0	0	0	0	0	0	0	0	0
Total	**12**	**708**	**111**	**819**	**202**	**43**	**245**	**910**	**154**	**1064**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high value crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	01	10	00	10	03	00	03	13	00	13
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Grading and standardization	01	15	00	15	00	00	00	15	00	15
Total	**2**	**25**	**0**	**25**	**3**	**0**	**3**	**28**	**0**	**28**
b) Fruits										
Cultivation of Fruit	10	141	00	141	80	00	80	221	00	221
Management of young plants/orchards	01	6	0	6	2	0	2	8	0	8
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	01	2	3	5	12	00	12	14	3	17
Total (b)	**12**	**149**	**3**	**152**	**94**	**0**	**94**	**243**	**3**	**246**
c) Ornamental Plants										
Nursery Management	01	16	09	25	01	2	3	17	11	28
Total (c)	**01**	**16**	**09**	**25**	**01**	**2**	**3**	**17**	**11**	**28**
d) Plantation crops										
Production and Management tech	0	0	0	0	0	0	0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

e) Tuber crops										
Production and Management technology	05	79	00	79	00	00	00	79	00	79
Total (e)	**05**	**79**	**00**	**79**	**00**	**00**	**00**	**79**	**00**	**79**
f) Spices										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Production and management technology	0	0	0	0	0	0	0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
G Total (a-g)	**20**	**269**	**12**	**281**	**98**	**2**	**100**	**367**	**14**	**381**
III. Soil Health and Fertility Management										
Soil fertility management	01	10	00	10	01	00	01	11	00	11
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	02	29	12	41	5	0	5	34	12	46
Nutrient Use Efficiency	02	34	00	34	30	00	30	64	00	64
Others (pl specify) Natural Farming	8	199	49	248	34	2	36	233	51	284
Total	**13**	**272**	**61**	**333**	**70**	**2**	**72**	**342**	**63**	**405**
IV. Livestock Production and Management										
Dairy Management	03	33	0	33	06	0	06	39	00	39
Poultry Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	02	17	01	18	02	01	03	19	02	21
Disease Management	01	27	0	27	05	0	05	32	0	32
Feed & fodder technology	04	38	0	38	04	0	04	42	0	42
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Production & management technology	0	0	0	0	0	0	0	0	0	0
Sheep & Goat rearing	01	08	0	08	01	0	01	09	0	09
Total	**11**	**123**	**1**	**124**	**18**	**1**	**19**	**141**	**2**	**143**
V. Home Science/ Women empowerment										

Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Value addition	4	0	115	115	0	9	9	0	124	124
Women and child care	0	0	0	0	0	0	0	0	0	0
Women Empowerment	0	0	0	0	0	0	0	0	0	0
Total	**4**	**0**	**115**	**115**	**0**	**9**	**9**	**0**	**124**	**124**
VI. Agril. Engineering										
Farm Machinery & its maintenance	08	166	22	188	20	10	30	186	32	218
Installation and maintenance of micro irrigation systems	03	55	07	62	0	0	0	55	07	62
Repair and maintenance of farm machinery and implements	04	73	18	91	02	01	03	75	19	94
Small scale processing and value addition	04	43	54	97	03	09	12	46	63	109
Post Harvest Technology	01	10	0	10	0	0	0	10	0	10
Soil and water conservation	06	136	05	141	40	03	43	176	08	184
Total	**26**	**483**	**106**	**589**	**65**	**23**	**88**	**548**	**129**	**677**
VII. Plant Protection										
Integrated Pest Management	39	947	195	1142	262	52	314	1209	247	1456
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0
Others – Safe use of pesticides	0	0	0	0	0	0	0	0	0	0
Total	**39**	**947**	**195**	**1142**	**262**	**52**	**314**	**1209**	**247**	**1456**
VIII. Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX. Production of Inputs at site										
Organic manures production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	1	19	21	40	2	3	5	21	24	45
Mushroom Production	2	22	36	58	2	4	6	24	40	64
Total	**3**	**41**	**57**	**98**	**4**	**7**	**11**	**45**	**64**	**109**

X. Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	1	0	45	45	0	5	5	0	50	50
Total	**1**	**0**	**45**	**45**	**0**	**5**	**5**	**0**	**50**	**50**
XI. Agro-forestry										
Nursery management	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**129**	**2843**	**703**	**3546**	**719**	**144**	**863**	**3462**	**847**	**4409**

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

Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
I. Crop Production										
Resource Conservation Technologies	02	34	0	34	03	0	03	37	0	37
Weed Management	01	74	0	74	6	3	9	80	3	83
Cropping Systems	1	14	7	21	5	0	5	19	7	26
Crop Diversification	3	538	59	597	138	15	153	676	74	750
Integrated Crop Management	1	0	0	0	4	15	19	4	15	19
Integrated Crop Management	5	131	60	191	17	62	79	148	122	270
Intrgrated crop management	02	26	07	33	35	05	40	61	12	73
Others (pl. specify) Natural Farming	4	100	5	105	10	18	28	110	23	133
Total	**19**	**917**	**138**	**1055**	**218**	**118**	**336**	**1135**	**256**	**1391**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high value crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	01	10	00	10	03	00	03	13	00	13
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Grading and standardization	01	15	00	15	00	00	00	15	00	15
Total	**2**	**25**	**0**	**25**	**3**	**0**	**3**	**28**	**0**	**28**
b) Fruits										
Layout and Management of	0	0	0	0	0	0	0	0	0	0

Orchards										
Cultivation of Fruit	11	198	17	215	95	00	95	293	17	310
Management of young plants/orchards	01	6	0	6	2	0	2	8	0	8
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	01	2	3	5	12	00	12	14	3	17
Total (b)	**13**	**206**	**20**	**226**	**109**	**0**	**109**	**315**	**20**	**335**
c) Ornamental Plants										
Nursery Management	01	16	09	25	01	2	3	17	11	28
Total (c)	**01**	**16**	**09**	**25**	**01**	**2**	**3**	**17**	**11**	**28**
d) Plantation crops										
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Production and Management technology	05	79	00	79	00	00	00	79	00	79
Total (e)	**05**	**79**	**00**	**79**	**00**	**00**	**00**	**79**	**00**	**79**
f) Spices										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	05	30	71	101	33	5	38	63	76	139
Total (f)	**05**	**30**	**71**	**101**	**33**	**5**	**38**	**63**	**76**	**139**
g) Medicinal and Aromatic Plants										
Production and management technology	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	**26**	**356**	**100**	**456**	**146**	**7**	**153**	**502**	**107**	**609**
III Soil Health and Fertility Management										
Soil fertility management	01	10	00	10	01	00	01	11	00	11
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	02	29	12	41	5	0	5	34	12	46
Nutrient Use Efficiency	02	34	00	34	30	00	30	64	00	64
Others (pl specify) Natural Farming	8	199	49	248	34	2	36	233	51	284
Total	**13**	**272**	**61**	**333**	**70**	**2**	**72**	**342**	**63**	**405**
IV Livestock Production and Management										

Dairy Management	03	33	0	33	06	0	06	39	00	39
Poultry Management	02	09	02	11	09	03	12	18	05	23
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	02	17	01	18	02	01	03	19	02	21
Disease Management	02	44	0	44	07	0	07	51	0	51
Feed & fodder technology	05	51	0	51	06	0	06	57	0	57
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Sheep & Goat rearing	03	34	12	46	09	0	09	43	12	55
Total	**17**	**188**	**15**	**203**	**39**	**4**	**43**	**227**	**19**	**246**
V Home Science/ Women empowerment										
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0
Processing and cooking	0	0	0	0	0	0	0	0	0	0
Value addition	5	0	147	147	0	12	12	0	159	159
Woment Empowerment	0	0	0	0	0	0	0	0	0	0
Total	**5**	**0**	**147**	**147**	**0**	**12**	**12**	**0**	**159**	**159**
VI Agril. Engineering										
Farm Machinery and its maintenance	08	166	22	188	20	10	30	186	32	218
Installation and maintenance of micro irrigation systems	03	55	07	62	0	0	0	55	07	62
Repair and maintenance of farm machinery and implements	04	73	18	91	02	01	03	75	19	94
Small scale processing and value addition	04	43	54	97	03	09	12	46	63	109
Post Harvest Technology	01	10	0	10	0	0	0	10	0	10
Soil and water conservation	06	136	05	141	40	03	43	176	08	184
Total	**26**	**483**	**106**	**589**	**65**	**23**	**88**	**548**	**129**	**677**
VII Plant Protection										
Integrated Pest	39	947	195	1142	262	52	314	1209	247	1456

Management										
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0
Others – Safe use of pesticides	0	0	0	0	0	0	0	0	0	0
Total	**39**	**947**	**195**	**1142**	**262**	**52**	**314**	**1209**	**247**	**1456**
VIII Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX Production of Inputs at site										
Bio-fertilizer production	1	8	20	28	0	2	2	8	22	30
Bio-agents production	1	19	21	40	2	3	5	21	24	45
Mushroom Production	2	22	36	58	2	4	6	24	40	64
Seed Production	03	43	00	43	02	00	02	45	00	45
Total	**7**	**92**	**77**	**169**	**6**	**9**	**15**	**98**	**86**	**184**
X Capacity Building and Group Dynamics										
Group dynamics										
Entrepreneurial development of farmers/youths	7	17	125	142	3	18	21	20	143	163
Total	**7**	**17**	**125**	**142**	**3**	**18**	**21**	**20**	**143**	**163**
XI Agro-forestry										
Production techn	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**159**	**3272**	**964**	**4236**	**809**	**245**	**1054**	**4081**	**1209**	**5290**

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

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Mushroom Production	1	0	17	17	0	4	4	0	21	21
Dairy Management	0	0	0	0	0	0	0	0	0	0
Poultry production	01	09	0	09	01	0	01	10	0	10
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0	0	0

Vermi-culture	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	2	3	9	12	2	20	22	5	29	34
Low cost pest management / IPM	0	0	0	0	0	0	0	0	0	0
Any other (soil and water testing	0	0	0	0	0	0	0	0	0	0
TOTAL	**4**	**12**	**26**	**38**	**3**	**24**	**27**	**15**	**50**	**65**

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

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	02	13	00	13	00	00	00	13	00	13
Dairying	01	10	0	10	01	0	01	11	0	11
Sheep and goat rearing	01	08	0	08	01	0	01	09	0	09
Repair and maintenance of farm machinery and implements	01	30	01	31	5	4	09	35	05	40
Seed production	01	17	00	17	00	00	00	17	00	17
Planting material production	01	16	00	16	00	00	00	16	00	16
Post Harvest Technology	01	0	14	14	0	01	01	0	15	15
Production of organic inputs	03	14	0	14	45	03	48	59	03	62
TOTAL	**11**	**108**	**15**	**123**	**52**	**8**	**60**	**160**	**23**	**183**

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

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	02	13	00	13	00	00	00	13	00	13
Mushroom Production	1	0	17	17	0	4	4	0	21	21
Dairying	01	10	0	10	01	0	01	11	0	11
Sheep and goat rearing	01	08	0	08	01	0	01	09	0	09
Repair and maintenance of farm machinery and implements	01	30	01	31	5	4	09	35	05	40
Seed production	01	17	00	17	00	00	00	17	00	17
Planting material	01	16	00	16	00	00	00	16	00	16

production										
Post Harvest Technology	01	0	14	14	0	01	01	0	15	15
Poultry production	01	09	0	09	01	0	01	10	0	10
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	2	3	9	12	2	20	22	5	29	34
Vermi-culture	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0	0	0
Biopestcide production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	03	14	0	14	45	03	48	59	03	62
TOTAL	**15**	**120**	**41**	**161**	**55**	**32**	**87**	**175**	**73**	**248**

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

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Productivity enhancement in field crops	1	36	9	45	6	7	13	42	16	58
Integrated Pest Management	03	156	37	193	33	12	45	189	49	238
Integrated Nutrient management	1	25	18	43	9	6	15	34	24	58
Care and maintenance of farm machinery and implements	01	54	16	70	05	02	07	59	18	77
Production and use of organic inputs	01	59	16	75	10	05	15	69	21	90
Management in farm animals	01	16	0	16	03	0	03	19	0	19
Animal disease management	0	0	0	0	0	0	0	0	0	0
TOTAL	**8**	**346**	**96**	**442**	**66**	**32**	**98**	**412**	**128**	**540**

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

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Productivity enhancement in field crops	1	23	12	35	6	0	6	29	12	41

Integrated Pest Management	01	54	46	100	10	12	22	64	58	122
Integrated Nutrient management	1	136	37	173	26	13	39	162	50	212
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	2	75	41	116	19	4	23	94	45	139
Total	**5**	**288**	**136**	**424**	**61**	**29**	**90**	**349**	**165**	**514**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	2	59	21	80	12	7	19	71	28	99
Integrated Pest Management	04	210	83	293	43	24	67	253	107	360
Integrated Nutrient management	2	161	55	216	35	19	54	196	74	270
Care and maintenance of farm machinery and implements	01	54	16	70	05	02	07	59	18	77
Production and use of organic inputs	3	134	57	191	29	9	38	163	66	229
Management in farm animals	01	16	0	16	03	0	03	19	0	19
Animal disease management	0	0	0	0	0	0	0	0	0	0
TOTAL	**13**	**634**	**232**	**866**	**127**	**61**	**188**	**761**	**293**	**1054**

Table Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Commercial production of vegetables	0	0	0	0	0	0	0	0	0	0
Spices crops	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Post harvest technology and value addition										
Processing and value addition	05	30	71	101	23	5	28	48	76	124
Total	**05**	**30**	**71**	**101**	**23**	**5**	**28**	**48**	**76**	**124**
Farm machinery										
Training program under PCRA	0	0	0	0	0	0	0	0	0	0
Farm machinery, tools and implements	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Livestock and fisheries										

Livestock production and management	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Home Science										
Processing & value addition	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Agricultural Extension										
Entrepreneurial development of farmers/youths	5	17	57	74	3	10	13	20	67	87
Total	**5**	**17**	**57**	**74**	**3**	**10**	**13**	**20**	**67**	**87**
Plant protection										
Integrated pest and Disease Mnangement	07	404	45	449	115	09	124	519	54	573
Integrated pest and Disease Mnangement	01	50	10	60	10	05	15	60	15	75
Integrated Crop Management	01	59	16	75	10	05	15	69	21	90
Total	**9**	**513**	**71**	**584**	**135**	**19**	**154**	**648**	**90**	**738**
GRAND TOTAL	**19**	**560**	**199**	**759**	**161**	**34**	**195**	**716**	**233**	**949**

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			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Crop production and management										
Commercial vegetable production	0	0	0	0	0	0	0	0	0	0
Commercial vegetable production	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Livestock and fisheries										
Sheep and goat rearing	2	3	9	12	2	20	22	5	29	34
Poultry farming	0	0	0	0	0	0	0	0	0	0
Total	**2**	**3**	**9**	**12**	**2**	**20**	**22**	**5**	**29**	**34**
Income generation activities										
Nursery, grafting etc.	**1**	**16**	**09**	**25**	**1**	**2**	**3**	**17**	**11**	**28**
Value addition (Dal Mill)	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0
Mushroom cultivation	1	0	17	17	0	4	4	0	21	21
Total	**2**	**16**	**26**	**42**	**1**	**6**	**7**	**17**	**32**	**49**
Grand Total	**4**	**19**	**35**	**54**	**3**	**26**	**29**	**22**	**61**	**83**

3.5 Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)	428	5725	82	5807
Diagnostic visits	20	162	06	168
Field Day	09	567	15	582
Group discussions	02	71	09	80
Kisan Ghosthi	11	362	09	371
Kisan Mela	07	1169	12	1181
Exhibition Organized/attended	04	14838	12	14850
Scientists' visit to farmers field	33	337	22	359
Field visit to Cotton plots under SPC	55	240	0	240
Plant/animal health camps	22	1076	25	1101
Farmers' seminar/workshop	02	28	6	34
Method Demonstrations	09	126	13	139
Farm Science Club	02	62	02	64
Farmers Visit to KVK	15	16997	16	17013
Workshop	05	219	03	222
Exposure visits	02	89	0	89
Self Help Group	01	17	3	20
Live Streaming of Hon. PM Programme	05	196	0	196
Swachhata Pakhwada, Maah	21	348	0	348
Participation in Viksit Bharaty Sankalp Yatra	44	5150	162	5312
World Women Day	01	68	0	68
World Veterinary Day	01	41	0	41
World Cotton Day	01	20	0	20
ICAR Foundation Day	01	74	0	74
Krishi Din	02	74	06	80
Mahila Kisan Diwas	01	47	0	47
World Food Day	01	50	0	50
World Soil Day	01	55	2	57
Ranbhaji Mahotsav	03	182	4	186
Total	**709**	**48390**	**409**	**48799**

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

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	--
Extension Literature	05
News paper coverage	132
Popular articles	04
Radio Talks	01
TV Talks	0
Animal health amps (Number of animals treated)	22 (5646 animals)
News Letter	1

3.6 Online activities during year 2023

S. No.	Activity Type	Mode of implementation (Video conferencing / Audio Conferencing / Facebook Live / YouTube Live/ Zoom/ Google meet/ Webexetc)	Title of Program	No. of Programmes	No. of Participants/ Views
A	**Farmers training**				
1	Online Training Programme	Zoom	Training on IPDM in Rabi Crop like Chck pea , Wheat and Maize	01	148
B	**Farmers scientist's interaction programme**				
	--				
C	**Farmers seminars**				
	Total	--			
D	**Expert lectures**				
		Zoom meeting	Current situation of pest and Disease management in kharif crop	01	162
E	**Any other Extension Functionary Trainings**	**--**			
	Grand Total			**02**	**316**

3.7 PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs 2022

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Oilseeds	Soybean	KDS-726	--	10.0	110000	30
	Soybean	KDS-753	--	12.50	137500	50
Pulses	Pigeon pea	BDN-716	--	12.50	87500	215
	Chick pea	JAKI-9218	--	13.28	51083	45
Total				**48.28**	**386083**	**340**

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	No. of farmers
Fruits	Custard Apple	Balanagar	--	150	4500	10
	Citrus	Nagpur Santra	--	650	52000	02
Spices	Turmeric	Pragati, Waigaon	--	2 qt	5000	7
	Garlic	AKG-7, G-41	--	0.20 qt	5000	7
Total				**802.2**	**66500**	**26**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio Fertilisers	Vermicompost	6000	60000	10
Total		**6000**	**60000**	**10**

Production of livestock materials –

Particulars of Live stock	Name of the animal / bird / aquatics	Name of the breed	Type of Produce	unit (no./ lit/kg)	Quantity	Value (Rs.)	No. of Farmers
Dairy animals							
Cows	--	--	--	--	--	--	--
Buffaloes	--	--	--	--	--	--	--
Poultry							
Broilers	--	--	--	--	--	--	--
Layers	--	--	--	--	--	--	--
Duals (broiler and layer)	Kaveri and CARI-Nirbhik	Kaveri and CARI-Nirbhik	Eggs and meat	Selling and yet to be sold	400	58850	65
Total					**400**	**58850**	**65**

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

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

B. Literature developed/published

Item	Title	Authors name	Number
Research papers / Abstract	Impact of Front Line Demonstration on Pulses Productivity and profitability in farmers field	S.A. Borde	01
	Effect of Broad Base Furrow Seed Drill Technology on Soybean yield in Buldana District	S.A. Borde	01
	Impact of Front Line Dmeonstration of Blackgram in Buldana District	S.A. Borde	01
	Enhancing the productivity and production of Greengram through cluster front line demonstrations in Buldana district	S.A. Borde	01
	Sediment modeling using laboratory-scale rainfall simulator and laser precipitation monitor	Mr. V. G. Jadhao	01
	Modeling of rain erosivity employing simulated rainfall and laser precipitation monitor	Mr. V. G. Jadhao	01
Technical reports	--		
News letters	--	--	--
Technical bulletins	--		
Popular articles	Care and management of dairy animals in summar season	Dr.V.S.Janotkar	01
Extension literature	Biofertilizer production	S.A. Borde	100
	Mushroom production	S.A. Borde	100
	Natural farming	S.M.Umale,V.G.Jadhao,A.T.Gabhane	500

C. Details of Electronic Media Produced

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

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)	49	@KVKBuldanaI	966 Subscribers
		18	**@shashankkrishigyan**	**187**
2	Facebook page/ Account (no of Post)	48	https://www.facebook.com/KVKBuldana1	998 Followers
3	Mobile Apps	01	KVK App	--
4	WhatsApp groups	65	--	4150 Farmers
5	Twitter Account	32	--	32 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).

Success Story I

Name : Mr. Sunil Buaurao Ghorpade
Address : Khutpuri, Tq: Khamgaon, Dist: Buldana
Age : 42 Years
Qualification : 10th
Land : 5 acres

1. **Situation analysis/ Problem statement:**
   Mr. Sunil Bhaurao Ghorpade is living in joint family having 5 acres of land. He is having dryland agriculture and growing Soybean + Pigeon Pea and having low family income. He can't fulfil his family needs from this income source.

2. **Plan, Implement and Support**:
   Mr. Sunil Ghorpade attended training programme organized by KVK under Jal Shakti Abhiyan in collaboration with BAIF. Mr. Nitin Talokar, SMS KVK given detailed information about water bank concept and highlighted need of water for crop production. He suggested calculations of water according to crop need and water storage structure and its construction. Availability of water at field make assure profitable income and can grow cash crops in off seasons too.

   Mr Sunil Ghorpade shares his view and shown interest in income generation activities in discussion session Mr. Nitin Talokar and Mr. Abhay Karde with Mr. Sunil Ghorpade decided to adopt lined farm pond for water storage and growing of vegetables from this storage water and selling of this produced to Khamgaon market which is 6 km away from his village Khutpuri.
   Mr Sunil Ghorpade firstly done survey of agriculture market in nearby cities i.e. Khamgaon & Akola. He found scope for vegetable production which is easy for him along with his regular work. He found Khamgaon city which is suitable for him for marketing of vegetables.

   For constructionLined Farm Pond size : 30m x 30mx 3m covered with plastic film and get recharged from well were plan for that financial assistance on 50 per cent was provided by BAIF NGO. BAIF contributed Rs. 4.00 lakhs with his own contribution of Rs. 50000/-

3. **Output**: Construction of lined farm pond of size 30mx30mx3m has enables water storage of 1800000 liters, with this added surplus water Mr. Sunil Ghorpade started growing vegetable and fishery and added income every year as depicted in table below.

Year	Crops Grown	Farming situation	Income (Rs)
2019	Soybean+ Pigeon Pea	Rainfed	90000.00
2020	Soybean+ Pigeon Pea	Rainfed	85000.00
2021	Soybean+ Pigeon Pea	Rainfed	102000.00

2022	Soybean+ Pigeon Pea Wheat Vegetable	Rainfed Irrigated Irrigated	96000.00 50000.00 12000.00 158000.00
2023	Soybean+ Pigeon Pea Vegetable Fish Farming	Irrigated Irrigated	120000.00 40000.00 70000.00 230000.00
It is found that technical adoption of lined farm pond increases farm income by double.			

4. **Impact**: Large scale/ macro level (district/state) evidences related to technological benefits (changes in area and cropping system, livestock number, use of farm machinery & tools, changes in production and productivity of the district/state), economic benefits (contribution to district/state GDP, district agricultural economy) social benefits (education of children, status in the society, house construction etc.), environmental benefits (tolerance to temperature, drought/dry spell etc.), institutional development like processing units, market system, storage structures, industries etc.), etc.






Success Story II
Name of Farmer : Vasant Baliram Patil
Village : Vadi
Taluka : Nandura
District : Buldhana
Education : 12 th

Introduction

Vasant Baliram Patil is 61year age farmer having land 2.80 ha , from Wadi District Buldhana doing Natural farming from last 17years. And guided farmers about Natural farming.

Training and guidance of KVK

KVK Buldhana-I given a Training on Organic Farming, time to time KVK Scientist upgraded his knowledge through on campus training on Natural farming and showed centres crop cafeteria. He was aware and decided to cultivate the crops with the adoption of recent natural farming technology.

Practices adopted

- Adopted natural farming for the last 5 years in the form of multi-crop farming.
- Cultivated Soybean, Pigeonpea, Wheat and Mustard under natural farming.
- Pioneered in natural farming through crop diversification.
- Used various homemade inputs judiciously to get optimum production from natural farming.
- Used desi cow based and plant-based products like beejamrit, jivamrit, go kripaamrutam bacterial culture, neemastra and brahmastra for crop health and plant protection. Also used yellow sticky trap for control of aphid.
- Practiced green manuring of dhaincha/sesbania, sunhemp, cow pea, and green gram.
- Practiced water conservation technologies including mulching of crop residue, bed sowing and ridge sowing, along with sprinkler irrigation.
- Carried out weed management through mulches. Developed an ideal integrated model of for smallholder farmers.
- Practiced in-situ crop residue management with zero burning.

Comparison between Natural Farming and Conventional Farming

Parameters	Natural Farming (Area in ha)				Conventional Farming (Area in ha)			
Name of Crop	Soybean (1.00)	Pigeonpea (1.00)	Wheat (0.40)	Mustard (0.40)	Soybean (1.00)	Pigeonpea (1.00)	Wheat (0.40)	Mustard (0.40)
Cost of cultivation (Rs)	25000	20000	9000	9000	40000	30000	15000	15000
Production (q)	20	12	15	6	20	12	16	6
Gross return (Rs)	100000	108000	45000	42000	100000	96000	32000	36000
Net return (Rs)	75000	88000	36000	33000	60000	66000	17000	21000
BC ratio	4	5.4	4	4,6	2.5	3.2	2.13	2.4

Benefits and achievements

- Reduced the dependence on inputs from external sources.
- Obtained good yield.
- Harvested chemical–free produce.
- Ensured efficient and economical use of natural resources.
- Guided about natural farming to other farmers in the district.

Impact of the Technology

- Proved to be a reasonable and sustainable method.
- Produced sufficient amount of inputs, with three indigenous cows.
- Increased net income with low investment.
- Resulted in less preparatory tillage.
- Improved physical, chemical and biological characteristics of soil.
- Helped to conserve biodiversity by management of natural resources.
- Satisfied family, friends, and consumers with chemical-free food grains and vegetables.

Photographs of Mr.Vasant Baliram Patil Farm

Success Story III

Backyard Poultry Farming

Name of Enterpreuner: Mr. Vijay Shaligram Ambulkar

At.Po.Wasadi Tq.Nandura, Dist: Buldana

1. Situation analysis/Problem statement:

Buldana district has a dry land area. Due to imbalanced rainfall, low productivity, farmers do not get satisfactory income from their land. To overcome this problem & to get additional income sources, farmers are motivated to subsidiary businesses like Poultry, Goatary and Dairy, nursery, honeybee keeping etc.

In the Buldana district, the main source of income is agriculture. Mr. Vijay Shaligram Ambulkar (46) is a land youth from khamgaon block and passed 10th Std. He was doing agriculture crop cultivation like soyabean crop in kharif season and in rabi Bengalgram crop, from this crop he get income which is insufficient for his family's needs. He visited KVK to get some information about the subsidiary business. He contacted KVK scientists and expressed his situation and getting low income. KVK scientists advised him to start subsidiary business like poultry and goat farming. He visited the KVK goat unit & collected necessary information about it and expressed interest in starting. He acquired training on poultry farming from KVK.

2. Plan, Implement, and Support: backyard poultry rearing as a subsidiary business.

Activities implemented by KVK:

Mr.Vijay Shaligram Ambulkar attended the various training program, group discussions, Krishi melawa, exhibitions organized by KVK, SAU & other depts. He collected required information about the poultry rearing, feeding management, vaccination schedules, disease information, and controls. In Jan. 2022, he started small poultry unit in the available structure. In 2022 he purchased 50 nos desi poultry birds reared them. During the year 2022 KVK scientists gave technical support for poultry unit and small unit of Azolla cultivation.

3. Output:

Initially, he started a small-scale poultry unit in available structure by investing his own amount and taking some debt from his friend. After one year number of increased, out of which he has sold 35 males & females for Rs. 21000/- also sold eggs of Rs. 15750/- in 2022. In the year 2023, the number of birds increased by hatching eggs. In the current year he sold 45 male and female birds of varying ages for Rs.20500/-. KVK scientists regularly visit his goat farm and guide him frequently with the problems he faces.

Year	No. of goats	Cost of prod.	Income	Net income
2021-22	50 dual poultry birds	12220/-	1400 nos of eggs (Rs21000/-) & sale out 35 birds15750/-	24000/-
2022-23	100 dual poultry birds	25600/-	2420 eggs (Rs.36300 /-) sale of birds 45 birds 20500/-	31200/-
2023-24	120 dual poultry birds	30540/-	Selling is going on	--

4. Outcome: Due to the initial steps of Mr.Vijay Shaligram Ambulkar, his friends and other rural youths from nearby villages are getting motivated and starting small backyard poultry unit rearing. Under the guidance of KVK scientists, another two small backyard poultry units are started in village of Nandura block.

Success Story IV

Sau. Vanmala Purushottam Jadhav
Address: At post Sulaj Tal-Jalgaon Jamod,
Dist. Buldana, Maharashtra
Mobile Number: 9527296735

1. **Situation analysis/ Problem statement:**
Sau. Vanmala Purushottam Jadhav aged 36 years r/o Sulaj Tal-Jalgaon Jamod doing her traditional agriculture farming on her 1.5 acre family land. She used to cultivate soybean redgram mixed cropping system on her own land from this much area she was earning annual income of 40000-50000 per annum from this less income she was not able to fulfill her family needs and kids expectation. As due to the situation of low-income potential in agriculture business due to climatic venerability and insect pest infestation she was interested for enterprising but in which sector to do business was not clearly decided. She interacted KVK Buldana-I to overcome this situation KVK Buldana-I suggested primary processing and value addition of crops that can be grown locally.
Plan, Implement and Support: KVK Buldana-I conducted training and exposure visit in primary processing of pulses crops and visited local entrepreneurs in this program. Sau. Vanmala Purushottam Jadhav get interested in pulses processing. KVK advised her to go for subsidies available with Agriculture Dept. She applied for subsidies Department of agriculture. She get benefited subsidy under Project on climate resilient agriculture Dept. of Agriculture as she was participated in KVK organized training ad she has set up PKV Mini Dall Mill, Chili Powder machine.

2. **Output**:
Sau. Vanmala Purushottam Jadhav started production of pulses processing as well as chili powder. She also purchased two buffalo. From pulses processing she earned Rs. 110000/- and from chili powder machine Rs.25000/-. Also from dairy business she got income of Rs. 100000/-.

3. **Impact**:
From success of Mrs. Vanmala Jadhv, presently 02 pulse processing units are started in nearby villages.

Pulses Processing Unit

Dairy Unit

Visit of SHG to Pulses Processing Unit

Felicitation by Dr. PDKV, Akola

Success Story V

Sheela Nagesh Dukare
Address: At post Wadi Tal-Nandura,
Dist. Buldana, Maharashtra
Mobile Number: 8275063357

1. **Situation analysis/ Problem statement:**
   Mrs Sheela Dukare aged 36 years r/o Wadi Tal-Nandura doing her traditional agriculture farming o her 10 acre family land. She used to cultivate soybean redgram mixed cropping system on her own land from this much area she was earning annual income of 70000-80000 per annuam from this less income she was not able to fulfill her family needs and kids expectation. As due to the situation of low-income potential in agriculture business due to climatic venerability and insect pest infestation she was interested for enterprising but in which sector to do business was not clearly decided. She interacted KVK Buldana-I to overcome this situation KVK Buldana-I suggested primary processing and value addition of crops that can be grown locally.
2. **Plan, Implement and Support**: KVK Buldana-I conducted training and exposure visit in primary processing of oilseed and pulses crops and visited local entrepreneurs in this program Mrs. Sheela dukare get interested in traditional oil extraction processes that has potential of income generation and there is demand of health aware customer for mechanical oil extraction method. KVK advised her to go for subsidies available with DIC, KVIC, Deptt. Of agriculture. She applied for subsidies at KVIC and Department of agriculture. Mrs. Sheela Dukare get benefited subsidy under Project on climate resilient agriculture Dept. of Agriculture as she was participated in KVK organized training ad she has set up oil extraction unit at Wadi tal- Nandura.

3. **Output**:
   Mrs Sheela Dukare started production of raw oil from oilseed crops like groundnut, sunflower, safflower, linseed, sesamum and mustard oil farmers in the jurisdiction bring raw material and getting pure mechanical extracted oil as per requirement on hiring basis so that farmers are getting raw oil in pure condition at low rate and Mrs. Sheela dukare get started her own business in this way two-way program get started.

   Fixed Cost
   Plant and machinery : - Rs. 200000.00
   Shed Construction : - Rs. 150000.00
   Electrical and miscellaneous: - Rs 25000.00
   Interest calculations 10.5 % per annum for 05 years: -

Year	Principal paid Rs.	Interest Rs. 10.5 % per annum	Total annual repayment
2020	60189.00	36533.05	96772.00
2021	66822	29899.96	96772.00
2022	74186	22535.87	96772.00
2023	82262.31	14360.25	96772.00
2024	91438.92	5283.64	96772.00
Total	374898.2	108612.8	483511.00

Annual Income statement

Year	Oil extraction on hiring Tones/year	Rate of processing Rs/ Tone	Income from hiring Rs./year) (A)	Selling own produced oil tone/year	Profit Rs/ tone	Income from selling Rs./year (B)	Total Income Rs./year (A+B)
2021	176	1956	344256	1.5	26000	39000	383256
2022	196	2045	400820	2	26520	53040	453860
2023	156	2164	337584	1.2	27463	32955	370539

As from the cost and income statement Mrs. Sheela Dukare is getting annual income of Rs. 2.0-2.5 lacks per annual from this enterprising. As the business having large potential and daily requirement, she can grow in this profitable business unit.

4. **Outcome**:
   From success of Mrs. Sheela dukare more no. of young entrepreneurs is interested to do oil milling business for processing and value addition.
5. **Impact**:
   From success of Mrs. Sheela dukare, presently 03 oil extraction unit Lakdi ghana are working in Shemba, khaira and walati villages in Nandura taluka and 03 Lakdi ghana (oil mill) are started in 2021 in Jalgaon jamod tehsil. So that 06 enterpruners started theirm income generation activity and develop 3600 days employment to workers and skill experts in this sector.




Lakdi Ghana & Products

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

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

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

A. Practicing Farmers

a) PRA
b) RRA
c) Group Discussion

B. Rural Youth

a) PRA
b) RRA
c) Group Discussion

C. In-service personnel

a) Need Assess through Ex-trainee sammelan

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

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

For FLD:

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

5.3. Field activities

i. Name of villages identified/adopted with block name (from which year) –
Year – **2023**
At.Po.Patan, Tq: Jalgaon Jamod,
At.Po. Hadiyamahal, Tq: Sangrampur

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

iii. No. of survey/PRA conducted : 02

iv. No. of technologies taken to the adopted villages : 25

v. Name of the technologies found suitable by the farmers of the adopted villages: 24

1. INM in cotton	2. 2% urea spraying
3. IPM in cotton	4. Feeding of Azolla
5. Spraying of KNO3 @ 2%	6. Use of Potasium bio ortho phosphate in banana
7. IPM in pigeon pea	8. Sowing of onion on raise bed
9. IPM in Beglagram	10. Use of micro-irrigation
11. Use of Bengalgram var. JAKI-9218	12. Direct sowing of onion
13. Use of Pigeon pea var. BSMR-736, ICPL-	14. Deworming in goat

72119	
15. Use of Blackgram var. AKU-15	16. Precision farming
17. Use of bio-fertilizer	18. Mineral mixture supplementation
19. Seed treatment	20. Production of organic inputs
21. Use of BBF planter in soybean & bengalgram	22. Nutritional kitchen gardening
23. Use of cotton slasher	24. Opening of ridges & furrow

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

Impact Assessment of Bengalgram frontline demonstrations on beneficiary farmers

Objectives

1. To study impact of Bengalgram FLDs on beneficiary Farmers
2. To Study the constraints faced by farmers in adoption of technology.

Methodology:

- This study was conducted by KVK Jalgaon Jamod during 2020-21 and 2021-22
- Total 82 FLD's of Bengalgram variety PDKV Kanak was conducted on farmers field.
- The gathered data was processed, tabulated, classified and analyzed.

Distribution of respondents according to extent of overall knowledge about recommended technologies of Bengalgram

Sr. No	Category	Bengalgram respondents				Total (N=164)	
		Beneficiary (N=82)		Non Beneficiary (N=82)			
		No	Per cent	No	Per cent	No	Per cent
1	Low	13	15.85	30	36.59	43	26.21
2	Medium	22	26.83	42	51.22	64	39.02
3	High	47	57.32	10	12.19	57	34.75
	Total	82	100.00	82	100.00	164	100.00

Distribution of respondents according to extent of overall adoption about recommended technologies of Bengalgram

Sr. No	Category	Bengalgram respondents				Total (N=164)	
		Beneficiary (N=82)		Non Beneficiary (N=82)			
		No	Per cent	No	Per cent	No	Per cent
1	Low	07	08.54	27	32.93	34	20.73
2	Medium	56	68.29	43	52.43	99	60.37
3	High	19	23.17	12	14.64	31	18.90
	Total	82	100.00	82	100.00	164	100.00

Impact of Bengalgram FLDs of PDKV Kanak variety on beneficiary Farmers

Sr. No.	Impact Dimension	Mean Score		Per cent change
		Beneficiary (N=82)	Non Beneficiary (N=82)	
1	Knowledge	19.02	16.26	11.50
2	Adoption	22.78	16.04	28.08
3	Yield	16.22	12.50	22.93
4	Annual Income	144.46	122.98	14.86
Impact= Overall Change				67.37

Results of the study showed that 11.50 per cent change in knowledge, 28.08 per cent in adoption, 22.93 per cent change in yield and 14.86 per cent in annual income. The overall change i.e. impact observed over non beneficiaries was 67.37 per cent**.**

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

Sr. No	Problems/ Constraints	Beneficiary (N=82)	Per cent	Non- Ben. (N=82)	Per cent
1	Non availability of seed for sowing in market	33	40.24	39	47.56
2	Non availability of electricity for irrigation	32	39.02	37	45.12
3	High wages and non availability of labour	30	36.58	42	51.21
4	Non availability of bio fertilizers	27	32.92	10	12.19
5	High prices of fertilizer, pesticides and other inputs	22	26.82	27	32.92
6	Non availability of loan at the time of input purchase	18	21.95	6	7.31
7	Infestation of pest and disease	17	20.73	11	13.41

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
Dr. P.D.K.V.,Akola	Technical guidance regarding training, demonstrations & other extension activities etc.
ICAR-CICR Nagpur	Joint implementation, participation in meeting, conducting training programmes and demonstration field day and kisan melas
Agril. Commissioner, Pune	Implementation of Govt. sponsored scheme & non-granted scheme.
State Agriculture Department (ATMA)	Collaboration in implementation of training, demonstrations, other extension activities & other schemes of State Govt. Provides financial support for conducting On Farm Testing, Demonstrations, Trainings & other extension activities under ATMA. KVK Scientists work as a Resource Person for various training programmes & other activities.
District Soil Survey & Soil Testing Office Buldana	Joint Implementation of Soil Analysis
ICRISAT, Hyderabad	Conducting training programme and demonstrations, KISAN MITrA Project
MANAGE Hyderabad	Technical and Financial, DAESI Programme – One year diploma programme for input dealers.
NIPHM Hyderabad	Conducting CCIM course for insecticide dealers

	Technical backstopping
A.D.O., Z.P., Buldana	Collaboration in implementation of extension activities. KVK Scientists work as a Resource Person for various training programmes & other activities.
State Animal Husbandry Dept.	To arrange & conduct livestock health & diagnostic camps. KVK Scientists work as a Resource Person for various training programmes & other activities.
NABARD	To establish self help groups in villages
VANAMATI, Nagpur	Financial & Technical Back stopping for DAESI diploma course
MAFSU,Nagpur	Technical guidance regarding training, demonstrations & other extension activities etc
MAVIM, Buldana	To conduct need based training.
Manav Vikas Mission, Buldana	Financial support for establishment of Mobile Soil Testing Van
RKVY (State Agriculture Dept.)	Financial support for farm mechanization.
CARE India	Conducting training programmes
BAIF	Conducting training programmes
NABARD	Participation in Meeting
Krishi Vikas Sanstha (NGO)	Conducting training programmes
Bhart Bhauudeshik Sanstha (NGO)	Conducting training programmes
PCRA, Mumbai	Workshops on Energy saving in Agriculture
Kalash Seeds Pvt. Ltd. Jalna	Serve as a mediator between vegetable seed producing farmers and Kalash Seeds

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.)
Training , Demonstration & Extension activities	2023	ATMA	757000.00
CAT Programme	2023	NABARD	275000.00
Out Scaling of Natural Farming Through KVK	2023	ICAR (under RKVY)	432000.00
Special Project on cotton ICAR-CICR under NFSM2023-24	19 June 2023	ICAR-CICR, Nagpur	1657430.00
Training and Technical backstopping	2023	PMFME	469000.00

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?
All KVK scientists actively participated in preparation of SREP of Buldana district. PRA & RRA in selected villages is done by KVK scientist. Also KVK scientists play a vital role in process of need access and findings of gap in technologies.

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (No of participants)
01	Meetings	LMC / GB Meeting	03	--	--
02	Research projects	--	--	--	--
03	Training programmes	Training programme	22	42	2560
04	Demonstrations	Mushroom	--	20	20
05	Extension Programmes	Exposure visit	--	01	42
06	Publications	--	-	-	-
07	Extension Literature	Mushroom Production, Goat Farming	-	02	200 copies
08	Other Activities	Extension Programmes	07	-	-
09	Exhibition	Jilha Krushi Mahotsav, Buldana	01	--	--
10	FFS	Various crops	12	--	--

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
1	Nursery Acrediation	Nursery Acrediation	**-**	**-**	**-**

E. Nature of linkage with National Fisheries Development Board

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

F. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	Outscaling of Natural farming	Training, Demonstrations & awareness programme	432000/-	432000/-	On farm production of organic inputs started by 16farmers

G. Details of linkage with PKVY (Paramparagat Krishi VikasYojana)

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	--				

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	--				

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

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

7. Convergence with other agencies and departments: Nil

8. Innovator Farmer's 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) : Nil

S. No	Thematic area	Title of the FFS	Budget proposed in Rs.	Brief report
1				

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

Agronomy

Summer Greengram - Variety PDM139 gives more yield than Local Variety and Ressistant to Yellow vain Mosaic
Soybean - Variety Phule Sangam Gives More Yield Than JS335
Pigeon pea - Variety BDN716 is resistant to wilt and and gives more Yield
Summer Ground Nut - Due to use of sulphur and micronutrient pods of summer groundnut filling is better

- **Assessment**

Soybean - Suvrna soya and amba varities of soybean gives at par yield, pods of suvrna soya does not scatter and damage by heavy rains, both varieties gives higher yield than JS335. And resistant to charcoal rot.

- Cotton : Two foliar applications of 25 ppm GA at flowering and boll development stages recorded less square drop , more bolls/ plant and boll weight (g), higher seed cotton yield and crop remain green for long time

Horticulture

- **Assesment**

  Turmeric - Foliar spray of Turmeric special micronutrient improves hidden hunger micronutrient deficiency. It will benefit for quality improvement.

  Banana – Foliar spray of potassium bio-orthophosphate for quality improvement is good, easy and cost effective.
- **Front Line Demonstration**

  Turmeric – Improved variety IISR Pragati having short duration, more curcumin content and less blight attack

Plant Protection

- **Cotton -** This technology is effective and gives 23.85 per cent more yield in cotton.
- **Soybean -** Seed treatment of Thaimethoxam 30 FS @ 10 ml per kg seed for effective management of stem fl and gves 24.85 per cent more yield than farmer practice'
- **Pigeon pea -** Wilt management - Seed treatment of vtvax power and tricoderma are effective for managemt of wilt and gives more yield than farmer practice.
- **Pigeaon pea –** pod borer complex- This technology gives 26.63 more yield than farmer practice.

Agriculture Engineering

- PDKV Garlic planter was helpful in terms of time and labour cost savings. It also improves quality and yield of garlic crop.
- BBF - Seed saving, good yield, reduction in no. of irrigation, open furrow helps to install sprinkler pipeline.
- Cotton Slasher - Reduction in drudgery and labour requirement in uprooting operation. Saves cost and time of operation.
- Subsoiler - Improves subsurface drainage, soil is loosen for cultivation, solve problem of water stagnation to good extent.
- PDKV BBF Planter is very useful for planting operation as labour shortage is a major problem and cost and time of operation is reduced with BBF Planter.Also yield of crop produced and quality of produce increases.

Animal Husbandry

Assessment

- CARI NIrbhik breed of poultry gives more eggs production and weight gain.
- Induction of oestrous in anoestrous cow by ovisynch protocol shows oestrous and conception rate increases.

FLD

- Kaveri breed of poultry gives more eggs production than deshi.
- Cultivation of fodder crop CO5 gives high fodder yield liked by animals

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

Agronomy

- Release of soybean variety resistant to stress and having more no grains per pod.
- Relese of cotton variety having higher ginning percentage and resistant to Pink boll worm.
- Relese of Sorghum variety suitable for summer season.
- Relese of Greengram variety suitable for summer Season

Horticulture

- **Assesment**
  Turmeric – Micronutrient deficiency in turmeric crop after turmeric special remain as it in rainy time however as soon as rain goes deficiency reduces.
  Banana – Foliar spray of potassium bio-orthophosphate for quality improvement is good, easy and cost effective however sometimes cracking of fingers remain as it.
- **Front Line Demonstration**
  Turmeric – Improved variety IISR Pragati having short duration and produce very good yield however finger girth is less as compaired to selum variety.

Plant Protection

- Cotton : Schedule of this technologies id effective for management of Piink bollworm management
- Soybean : Seed treatment of Thaimethoxam 30 FS @ 10 ml per kg seed for effective management of stem fl y , but primary cost is more
- Pigeon pea (Wilt Management) - Seed treatment of vitvax power and tricoderma are effective for managemt of wilt and gives more yield than farmer practice
- Pigeon pea (Pod Complex Borer) - Effective for management of pod borer complex

Agriculture Engineering

- Use of garlic planter was promising results in labour saving and field coverage. In field test it was found that o over throwing of garlic seed it should be minimized while in operation.
- Use of BBF Planter for sowing of groundnut has increase production potential with 33.34% seed saving. Broad bed furrow planting method was found beneficial in root crop production.
- Use of Cotton slasher utilizes 4.68 tone of cotton waste for enrichment of organic carbon in soil. It also beneficial for reduction in cost, time and drudgery in operation.
- Subsoiler is helpful in treatment of ill drain, water logged soil.
- Sowing of Soybean–Chickpea double cropping system on BBF Planter was found economical in saline tract region of purna river basin.
- PDKV mini dal mill was useful for rural youths in employment generation and small scale value chain network at farm level.
- Research on row crop harvester in redgram is need of farmers.
- Mechanical cotton pickers are needed as the picking operation consumes more man power and there is shortage and very high cost in cotton picking operation.

Animal Husbandry

Assessment

- CARI NIrbhik breed of poultry gives more eggs production and weight gain.
- Induction of oestrous in anoestrous cow by ovisynch protocol shows oestrous and conception rate increases.

FLD

- Kaveri breed of poultry gives more eggs production than deshi.
- Cultivation of fodder crop CO5 gives high fodder yield liked by animals

11. Technology Week celebration during- 2023

Period of observing Technology Week: Nil
Total number of farmers visited : --
Total number of agencies involved : --
Number of demonstrations visited by the farmers within KVK campus: --

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	--		
Lectures organized	--		
Film show	--		
Fair	--		
Farm Visit	--		
Diagnostic Practicals	--		
Number of organizations participated	--		

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

-- Drought condition was not arised duing 2023 in KVK jurisdiction.

A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries

B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Total		

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No. of participants
Total			

D. Animal health camps organized

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

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

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

F. Large scale adoption of resource conservation technologies

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

G. Awareness campaign

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

13. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
IPM cotton	6500	50	65000/- per ha	71000/- per ha
Use of pheromone traps for monitoring of pink bollworm in cotton	2510	33.86	--	Saving in cost of plant protection RS 1500/- per Ha
Use of Thimetoxam 30FS @ 10 ml per kg seed for management of stemfly in soyean	2850	50.87	67500/-per ha	80500/- per ha
Use of Trichoderma for management of wilt in pigeaon pea and Chickpea	850	52.94	--	15-20 % increased in yield
Use of yellow sticy traps for management of sucking pest in different crops	1050	44.28	--	Saving in cost of plant protection
IPM in bengalgram	2245	67.25	56000/- per ha	69000/- per ha
Seed treatment in pulses	3175	65.29	40000/- per ha	44000/- per ha
Use of 5 % neem seed extract	110	61.81	--	Saving in cost upto 1200/-per ha
Training and pruning method in citrus	420	64.29	250000/- per ha	265000/- per ha
New improved variety of Ajwain AA01-19	175	50.85	82440/-	105000/-
Use of BBF Planter	956	16.85	16420/-	22132/-
Use of Cotton slasher	396	32.66	34653/-	37850/-
Use of PDKV Dal mill	180	2	--	125630/-
In-situ soil and water conservation	56	7	18960/-	24650/-
Micro irrigation system	350	36%	24630/-	46120/-
Use of Garlic planter	16	60%	--	Saving 6500/-
Use of Subsoiler	40	25%	34650/-	36590/-
Use of spiral separator	163	34 %	--	300/- per qt.
Deseeding for custard apple	45	2%	46000/-	94000/-
De-worming in livestock	1825	79.45%	--	10.89% Increase in weight & improve health status
Mineral mixture supplementation	720	75%	--	Improve health status fertility & milk yield
CMT kit for mastitis detection	620	60.57%	--	Early detection of mastitis leads to minimize cost of

				treatment
Detection of heat in milching animals	1410	83.68%	--	Early detection of heat reduces dry period
Azolla feeding	310	62.90%	--	Improve weight gain
Nutritional garden	124	66.94	--	Improves HB level

B. Cases of large scale adoption

(Please furnish detailed information for each case)

i. Dryland Horticulture - Custard Apple c.v. Balangar

Most of the area in Buldana district is under drought prone area, the water table is going deeper & deeper and also the rains are not received properly from last 8-10 years. Hence, whatever area is under horticultural orchards i.e. Santra, Kagzi lime are decreasing day by day hence there was a need to increase the area under horticultural crops which can be grown under minimum water conditions. Hence KVK has decided to increase the area under dryland horticultural crops. On the other hand Buldana district is situated in between the Satpuda & Sahyadri ranges which are favourable for dryland horticultural crops like Custard Apple and Aonla. Custard Apple is found in plenty amounts in jungles as well as on the bank of small rivers & nalas which is supposed to be the wild crop therefore cannot fetch the good price in the market.

With considering the need of area & favourable climatic conditions for custard apple and aonla KVK has started to promote the farmers for cultivation of these crops where main emphasis was given to the custard apple. The demand of custard apple from the urban areas and metros are increasing. Also the crop has a potential to survive and give the sufficient production. Therefore KVK is promoting the farmers for cultivation of Balanagar locally selected variety which is bigger in size, attractive in appearance and sweeter in taste due to TSS about 24%.

In this regard KVK has also developed custard apple orchard on KVK horticulture farm. KVK is promoting and creating awareness among the farmers for culstard Apple cultivation in the district from last 8 years through various training programmes in collaboration with State Agril. Dept., Banks, different NGO's. Also telecasted and broadcasted T.V. shows and Radio talk's respt. on custard apple cultivation. In this regard KVK organised one State Level Custard Apple Workshop & Exhibition and two District Level Workshops.

Among the various thrust areas of custard apple i.e. genuine planting Materials, improved package of practice, proper method of harvesting, post handling, processing and value addition priority was given to availability of genuine planting material of custard apple. Hence KVK has taken the action towards it and as the host institute has a registered nursery named as Satpuda Nursery which is run under the technical supervision of KVK. And due to this technical support in this nursery 124500 custard apple seedlings are produced and sold to the farmers of this area with the technical knowhow of package of practices. As an impact of various activities and efforts of KVK, State Agriculture Department, NHM area under custard apple is increased from 184 ha in 1999 to 2435 ha in 2022-23 and also the productivity has been increased from 2.9 MT/ha to 5 MT/ha.

At present and in future KVK emphasis to provide improved package of practices, proper harvesting, post harvest handling, packing, marketing and processing, value addition so that farmers can get the maximum return and save the farmer from the glut in custard apple market. KVK's next objectives are to start the packing house, co-operative marketing and processing unit for custard apple. As a result of above efforts no. of farmers are earning plenty of income from custard apple.

ii. Integrated Pest Management in Cotton

Cotton is one of the major commercial crops of Buldana district in kharif season. Area under cotton crop is 2.46 lakh hectares which is 33% of total area. This crop is grown in medium to heavy black cotton soil under rainfed as well as irrigated condition in some pockets. There is a wide variation in productivity & economic returns due to rainfed condition. Cotton productivity is low due to lack of knowledge about improved package of practices, balanced fertilizer application, proper plant protection measures and emergence of new pests in cotton eco-system i.e. heavy incidence of sucking pests. Among these various problems due to pest & diseases, cotton yield is affected upto 30-40% and for controlling the target pest farmers use high grade & indiscriminate use of pesticides which increases the expenditure of plant protection and ultimately increases the cost of production.

To overcome this problem KVK Buldana is continuously working on the theme of Integrated Pest Management in cotton from last 11 years. For popularising IPM in cotton, KVK adopted the technologies/module suggested by Dr. PDKV, Akola. During this period KVK carried out various activities for popularization & dissemination of IPM concept in adopted villages as well as whole district through training programmes, FLD and collaborative programmes with State Agril. Dept.Various extension activities like kisan melawa, field day, kisan goshti, T.V. talk, radio talk and other extension activities viz. publication of various print material and popular articles in news papers & magazines are regularly conducted.

Activities carried out by KVK on IPM

Activity	Area / No. of activities
Training programmes	106
FLD's	615 ha
FFS	12
Krishi Melawa	18
Field Day	20
T.V. / Radio talk	14
Booklet and folder	15
Popular articles published	23
Webinar	02

As an impact of various activities carried out by KVK in regards to IPM concept

- Farmers got the knowledge of harmful & beneficial insects.
- Farmers started selection of proper pesticides at right time with proper concentration on target pests.
- Due to IPM plant protection cost is curtailed down by 40-50%.
- Status of beneficial insects is increased due to reduction in pesticides used in IPM villages.
- Yield level increased from 12.61 qt/ha to 17.25 qt/ha in rainfed condition in IPM villages.

iii. Enhancing productivity through use of BBF Planter in Buldana District

Background

Most of the area in Buldana district is under Rainfed Farming Situation, the water table is going deeper & deeper and also the rains are not received properly from last 7-8 years. Every year occurrence of dry spell, heavy rainfall in some specific period destroy crop condition as due to lack of soil and water conservation practices followed by farmers. Soybean, Cotton Redgram, Bengalgram, Green gram, Blackgram crops are mostly sown in the district.

Technology adoption

Dr. PDKV Developed BBF Planter consisting of four rows and driven by Tractor. It has seed metering device which maintains plant population in proper condition. Sowing of seed is done on Broad Bed which enhance seed bed preparation. The Broad Bed is followed by Furrow of V Shape 1 ft at top and 1 ft in depth. The use of furrow to store water in field thus increases water holding capacity of soil also help in draining excess of water. The BBF system is helping crops to withstand better growth in heavy rainfall situation as well as it conserves moisture in furrow which help to increase wilting point by 1-2 week in dry spell.

KVK Efforts

KVK Jalgaon Jamod is promoting BBF from year 2012 though Assessment, Demonstration and Training, Publication in Magazines. It was farmers feedback that yield of Soybean increases up to 20%, in Bengalgram yield was found to be increases up to 14 % and in Groundnut Seed cost is Reduced By Rs. 1200/- per acre and increase in yield was found up to 30 % as compared to local practice.

KVK Activities	Area / No. of activities
Training programmes Farmers	52
Training programmes Extension workers	08
Assessment	100 ha
FLD's	460 ha
FFS	05
Krishi Melawa	11
Field Day	14
Research papers	05
Booklet and folder	06
Popular articles published	11
Villages covered	141
Custom Hiring	1120 ha

Technical support of KVK to the farmers

KVK is conduction technical guidance to farmers using BBF planter for its setting and adjustment of new machineries and also providing skill trainings to operators.

Government support for Technology promotion

Agril Dept. has distributed BBF Planter on 90% subsidies to farmers under farm mechanization program. Now under PoCRA and DBT programs Government is providing 50-60 % subsidy to beneficiaries of the district.

iv. Cotton Slasher for Management of Cotton crop waste

Background

Cotton is one of the major commercial crops of Buldana district in kharif season. Area under cotton crop is 2.46 lakh hectares which is 33% of total area. This crop is grown in medium to heavy black cotton soil under rainfed as well as irrigated condition in some pockets.The district soil profile shows low organic carbon content in the soil which result in low productivity of Cotton and other crops and increase of fertilizer doze every year. Low organic carbon content in the soil is due to low availability of FYM and organic residue incorporation in soil. Farmer every year uproot cotton crop after harvet followed by burning it in field which results in Drudgery in uprooting cotton crop manually and loss of Valuable organic matter due to burning.

Technology Adoption

Cotton Slasher is an implement driven by Tractor PTO. It is Single row Chopper. It cuts Cotton row chop them in Cutter and Spread the chopped cotton residues over field. Cotton Slasher reduces drudgery, time and Cost in cotton uprooting and increases soil humus and organic carbon. Farmers in this jurisdiction well aware about this technology as the technology has promising results about cost, time and labour saving as there is shortage of labour the tractor owners identified the need and demand of such machinery. Presently 90 cotton slasher are working under KVK Jurisdiction area providing hiring facility to 540 ha area covering 1024 farmers

KVK Efforts

KVK Adopted use of cotton slasher from year 2012-13 and demonstrated its use through Assessment, Demo. Training, Booklet, and Popular Article. As a result Most of Progressive Farmers and Tractor Owners have purchased this machine and its use is also increasing year by year.

Activity	Area / No. of activities
Training programmes	34
Assesssment	18 ha
FLD's	95 ha
Field Day	03
Booklet and folder	02
Popular articles published	07
Villages covered	103
Custom Hiring	426 ha

v. PKV Mini dal mill for entrepreneurship development

Background

Buldana district having most of area under pulses crop production. The cropping pattern comprises of sole as well as mixed cropping system of Soybean+ Red gram, Cotton+ Green gram and Cotton + Black gram.In Rabi most of area under Chickpea production. The fluctuating market prices of the agriculture commodities reduced in hand profits of the farmers. There is a need for primary processing and value addition at grass root level so as to overcome problem of fluctuating market prices and for employment generation which is also a major problem due to land fragmentation.

To mitigate above situation KVK Buldana identified the need to solve this problems and identified PKV mini dal mill as a solution for primary processing of pulses for

processing at grass root level for value addition of pulses and generation of employment in rural areas.

Technology Adoption

PKV dal mill having less space requirement 15m2 having both option of single and 3-phase electricity supply with 3.0 hp motor. Mini dal mill having capacity of 10 qt per day making dal of all pulse crop like, red gram, green gram, black gram and chickpea. Beside it has a facility for cleaning of grain with attached roller. Dal milling is engaging activities of slack farming time i.e. in summer season.

PKV mini dal mill has employability to generate income of Rs. 25000 to 50000 pe month on of season of agriculture work most of the rural youths are working on pulse processing by dal milling providing hiring facility to farmers so they can process their own farm produce at low cost enriching their health. Dal mill waste is well utilize as animal feed and fodder.

KVK Efforts

KVK Adopted use of PKV mini dal mill from year 2010-11 and demonstrated its use through Vocation Trainings for rural youth and farm women's, Book, booklets and popular articles have been published As a result Most of Rural youths and farm women's from SHG have actively started their units nearly 246 small scale processing centers are running in this district as an impact nearly one dal mill unit is generating Rs15000/- to 25000/- income per month in production time of March-June (four month)

Activity	Area / No. of activities
Vocational trainings	10
Trainings of Beneficiaries (Dal Mill Beneficiary)	264
Popular article	12
Booklet	02
Visitors Demo. Unit	511
Dal Mill Inauguration	07
KVK connected dal mill in operation in the district	34

vi. Rural Empowerment through Skill Development & Vocational Trainings

To generate self employment for rural youths in the district KVK has conducted various skill development and vocational training programmes regarding Goat Farming, Broiler Poultry Farming, Dairy Farming, Dal mill processing, Shed net, Sericulture, Mushroom production, tailoring, pickles processing for rural youths. As an impact of these skill & vocational training programmes 248 small units are established and 1109 rural youths are employed in private sector.

Sr.No.	Skill / Vocational Trainings	No. of Units started
1	Poultry	21
2	Goat farming	17
3	Dairy	06
4	Protective cultivation	18
5	Sericulture	154
6	Dal Milling	12
7	Tailoring	24

8	Mushroom	14
9	Fruit processing small scale (SHG)	12
10	Value addition in Safed Musli & Minor Millet (SHG)	10
	Total	**288**

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

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
Jan 2023	02	8421	--
Feb 2023	01	6567	--
March 2023	02	9399	--
April 2023	03	10754	--
May 2023	03	10202	--
Jun 2023	03	10704	--
Jul 2023	05	12705	--
Aug 2023	04	11442	--
Sept 2023	03	9399	--
Oct 2023	03	9399	--
Nov. 2023	02	4621	--
Dec. 2023	01	1398	--
Total	**32**	**104852**	**105011**

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
Buldana-I	Text only	19	04	02	--	05	02	**32**
	Voice only	--	--	--	--	--	--	--
	Total Messages	19	04	02	--	05	02	**32**
	Total farmers Benefitted	**65489**	**13122**	**4621**	**--**	**16158**	**5621**	**105011**

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

S. N.	Demo Unit	Year of establis hment	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Poultry unit			Kaveri & CARI-Nirbhik	Eggs and meat	400	58850	33000/-	Yet to be sold
2	Azolla			Azolla pinnata	cultre	22	1500	4400	
3	Vermi-compost Unit	2009-10	880 sqft	Isenia Fotida	Vermi-compost	60 qt	6000/-	60000/-	Supplied to 10 farmers & KVK farm
4	Dalmill	2013	--	--	Dall	300 kg	1500/-	22000/-	

5	Ideal Nursery	2009	2000 sqft	Custard Apple, Citrus, Sweet Orange	Seedling / Rhizomes	802.2	55000/-	66500/-	26 farmers
6	Custom hiring	2012	65 ha	--	--	--	35000/-	121000/-	110 farmers

B. Performance of instructional farm (Crops) including seed production 2023

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. qt	Cost of inputs	Gross income	
Cereals									
Wheat	01.11.22	24.03.23	1.0	Amber	Grain	24.50	9500	44100	
Wheat	01.11.22	24.03.23	0.40	Arya	Grain	12.00	4500	21600	
Pulses									
Chick pea	15.10.22	22.03.23	0.40	Fule Vikarant	Seed	12.0	6500	60000	
Pigeon pea	25.06.23	15.01.24	1.20	BDN -716	Seed	17.50	15000	--	Yet to sell
Oilseeds									
Soybean	25.06.23	28.11.23	1.60	Phule Sangum & Phule Kimaya, Phule Durwa	Seed	26.85	24500	--	Yet to sell
Soybean	25.06.23	25.11.23	1.0	Phule Kimya KDS-753	Seed	12.00	35500	--	Yet to sell
Soybean	25.06.23	25.11.23	2.0	Phule Kimya KDS-753	Bulk	26.50	35500	--	Yet to sell
Fibers									
Cotton	07.06.23	30.12.23	2.0	Super Cot	Bulk	35.0	35000	--	Yet to sell
Sub-total						166.35	166000	125700	
Spices & Plantation crops									
Turmeric	June 22	March23	0.07	IISR Pragati	Rizhoms	14.0	2500	35000	
Garlic	Dec 22	March23		G41, AKG7	Bulb	4.80	2500	12000	
Fruits									
Custard apple	2006	Nov 2023	1.50	Balanagar	Fruits	431.6	5600	8500	
Guava	2018	Dec 2023	0.40	L-49	Fruits	526.66	3500	8500	
Aonla	2006	Nov 2023	0.60	Krishna	Fruits	599.12	3950	25000	
Sweet ornage	2006	Sept 2023	0.40	Nucellar, Katol gold	fruits	1164	9750	100000	
Sub-total						2740.18	27800	189000	
Grand total						2906.53	193800	314700	

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Vermi-compost	60 qt	6000/-	60000/-	Supplied to 10 farmers & KVK farm

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

Sl. No	Name of the animal	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Backyard poultry	Kaveri and CARI-Nirbhik	Meat & eggs	400	60850	80820	Yet to be sold

E. Utilization of hostel facilities Accommodation available (No. of beds):

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
January 2023	0	0	
February 2023	30	180	
March 2023	50	1300	
April 2023	0	0	
May 2023	8	40	
June 2023	0	0	
July 2023	0	0	
August 2023	10	30	
September 2023	0	0	
October 2023	0	0	
November 2023	18	108	
December 2023	0	0	

F. Database management

S. No	Database target	Database created
1	02 Database of soil testing farmers DFI farmers	03 Database of soil testing farmers, Database of progressive farmers, Database of DFI farmers

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilizatio n patter
			No. of Training programm s	No. of Demonstr ation s	No. of plan materials produced	Visit by farmers (No.)	Visit by officials (No.)		
--									

H. Performance of Nutritional Garden at KVK farm
If Nutritional Garden developed at KVK farm/Village Level? Yes If yes,
Nutritional Garden developed at KVK farm

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
0.01	Vegetable crops Fruit crops	8 Brinjal, Tomato, Cucumber, Spong guard, ridge guard, spinach, coriander, radish, Chilli, carrot, custard apple, papaya	615

Nutritional Garden developed at Village Level

No. of Villages covered	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers covered
10	Vegetable crops	Tomato,chilli,Brinjal,spinach,beet,radish,drumstick	45
10	Fruit Crop	Custard apple, Guava, Lemon	55

I. 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
1	Buldana I	Garden Keeper	200	4	1	12	8	16	9
2	Buldana I	Small Mushroom Grower	200	1	1	1	22	2	23

15. 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	--	--	--	--	--	--	--
With KVK	SBI Jalgaon Jamod	Jalgaon Jamod	01052	SES.KVK, Main A/c JJ	11496505890	443002692	SBIN0001052
	SBI Jalgaon Jamod	Jalgaon Jamod	01052	SES.KVK, Main A/c JJ	37075357417	443002692	SBIN0001052
	SBI Jalgaon Jamod	Jalgaon Jamod	01052	SES.KVK, R/F A/c JJ	11496505903	443002692	SBIN0001052
	SBI Jalgaon Jamod	Jalgaon Jamod	01052	SES.KVK, R/F A/c JJ	37047695891	443002692	SBIN0001052

B. Utilization of KVK funds during the year 2023-24 (Rs. in lakh) (Till 10th Feb. 2024)

S.N.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	204.50	204.505	186.68579
2	**Traveling allowances**	1.15	1.00	0.51926
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	5.45	5.00	4.41513
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	6.30	6.00	5.00068
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	Estb. of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)		**217.25**	**216.505**	**196.62086**
B. Non-Recurring Contingencies				
1	**Works**	--	--	--
2	**Equipments including SWTL & Furniture**	--	--	--
3	**Vehicle** (Four wheeler/Two wheeler, specify)	--	--	--
4	**Library** (Purchase of assets like books& journals)	--	--	--
TOTAL (B)		--	--	--
C. REVOLVING FUND		--	--	--
GRAND TOTAL (A+B+C)		**217.25**	**216.505**	**196.62086**

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2020 to March, 2021	80.90	25.13	13.72	92.31
April 2021 to March 2022	92.31	24.67	16.35	100.63
April 2022 to March 2023	100.63	27.41	26.82	101.22
April 2023 to March 2024 (till Feb.2024)	101.22	16.63	12.86	104.99

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
V.G. Jadhao	Sr. Scientist & Head	One month training on Management development programme for Sr. Scientist (MDP)	ICAR-NAARM, Hyderabad, KVK, Kalburgi (Karnataka) and ATARI, Pune	Offline	31 Jan-5 Mar. 2023
V.G. Jadhao	Sr. Scientist & Head	One week training programme on Natural Farming	Gurukul, Kurukshetra (Haryana) & NCONF, Gaziabad (UP)	Offline	09-14 Oct.2023
S.A. Borde	SMS Extn	Video Production and Skill Development	Dr. PDKV, Akola	Offline	13-15 July 2023
Y.R. Wakekar	PA Comp	Video Production and Skill Development	Dr. PDKV, Akola	Offline	10-12 July 2023
V.G. Jadhao	Sr. Scientist & Head	Two days state level workshop on Dr. P.D. natural farming Mission	YCMOU, Nashik	Offline	24-25 August, 2023
S. M. Umale	SMS, Agronomy	Two days state level workshop on Dr. P.D. natural farming Mission	YCMOU, Nashik	Offline	24-25 August, 2023
Sanjay M.Umale	SMS (Agronomy)	Orientation Training of Master Trainers for Safe and Judicious Use of Glyphosate by PCOs	NIPHM, Hydrabad	online	25 oct 2023

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

Name of the village	Total No. of families surveyed	Key interventions implemented	No. of farmers covered in each intervention	Change in income (Rs/unit, Rs/ha)	
				Before	After
Dhanora Jangam Tq: Nandura	85	Improved varieties, INM, IPM, Goat farming Dal Mill Poultry On farm production of Biofertilizer,Biopesticides, Vermicomposting,	60 80 03 01 01 01	7500 7800 20200 95000 4500 70500	13200 17200 41500 204000 9600 380000
Charban, Tq:Jalgaon Jamod	45	Improved varieties, INM, IPM, Goat farming Backyard Poultry Nutrient & bahar management in citrus	40 30 32 45 15	5500 5300 19300 3800 320000	11300 10800 38500 8400 690000

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

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

20. Details of Progress of ARYA Project - Nil

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

21. Details of SAP

S. No.	Types of major Activity conducted- SwachhtaPakhwada, Cleaning, Awareness Workshop, Miccobial based Agricultural Waste Management by Vermicomposting etc.	No. of Programmes conducted	No. of Participants
1	Digitization of office records/ e-office,	2	25
2	Basic maintenance (include housekeeping, cleaning of guest house, institute buildings & toilets, campus, etc)	5	52
3	Sanitation and SWM	2	28
4	Cleaning and beautification of surrounding areas	3	70
5	Vermicomposting/Composting of biodegradable waste management & other activities on generate of wealth for waste	6	139
6	Used water for agriculture/ horticulture application	2	113
7	Swachhta Awareness at local level	7	205
8	Swachhta Workshops	3	169
9	Swachhta Pledge	2	39
10	Display and Banner	2	35
11	Foster healthy competition		
12	Involvement of print and electronic media	1	25
13	Involving and with the help of the farmers, farm women and village youth in their adopted villages (no of adopted villages)	02	126

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

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	159	4081	1209	5290
Rural youths	15	175	73	248
Extension functionaries	13	761	293	1054
Sponsored Training	19	716	233	949
Vocational & Skill Training	06	40	93	133
Total	**212**	**5773**	**1901**	**7674**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	125	50.0	
Pulses	100	40.0	
Cereals	0	0	
Horticultural crops	35	11.2	
Commercial crop	25	10.0	
Total	**285**	**111.2**	
Livestock & Fisheries	20	--	20 units
Other enterprises	--	--	
Implements	100	40.0	
Total	**120**	**40.0**	20 units
Grand Total	**405**	**151.2**	**20 units**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	11	113	113
Livestock	02	20	20
Various enterprises	--	--	--
Total	**13**	**133**	**133**
Technology Refined			
Crops	--	--	--
Livestock	--	--	--
Various enterprises	--	--	--
Total	--	--	--
Grand Total	**13**	**133**	**133**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension & other extension activities	709	`48799
Total	**709**	**`48799**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
Buldana-I	Text only	19	4	2	--	5	2	**32**
	Voice only	--	--	--	--	--	--	--
	Voice & Text	--	--	--	--	--	--	--
	Total Messages	**19**	**4**	**2**	**--**	**5**	**2**	**32**
	Total farmers Benefitted	**65489**	**13122**	**4621**	**--**	**16158**	**5621**	**105011**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	48.28 qt	386083.00
Planting material (No.)	802 Nos	66500.00
Bio-Products (kg)	6 qt	60000.00
Livestock Production (No.)	400 Nos	58850.00
Fodder crop sets	5000 sets	10000.00
Azolla	0.22 qt	4400.00

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	2186	437200
Water	807	80700
Total -	**2993**	**517900**

8. HRD and Publications

Sr. No.	Category	Number
1	Abstract	--
2	Workshops	3
3	Conferences	--
4	Meetings	18
5	Trainings for KVK officials	7
6	Visits of KVK officials	5
7	Book published	1
8	Training Manual	2
9	Book chapters	--
10	Booklet	2
11	Leaflets/ Folder/ Pamphlet	1
12	Research papers	6
13	Technical Bulletin	--
14	Popular article	4
15	Extension folder	3
16	Award & recognition (SHG)	2
17	Radio Talk	01
18	News Paper Covergae	132