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:- 28.07.2023

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

ICAR-ATARI, Pune

DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2022

(January 2022 to December 2022)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	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 31 December, 2022)

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. Land allotted to KVK for use : 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. Run	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/-	4917 hrs.	Working
Tractor (John Deer) procured through ICAR fund	Mar.2012	710000/-	4547 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/-	52385 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	12 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 Deere 55HP	2022-23	1	911000.00	Working condition

1.8. Details SAC meeting conducted in the year – 06.09.2022

S. N.	Date	Name & Designation of Participants	Salient Recommendations	Action taken
1	06.09.2022 1. Mr. K.G Ingle, President SES 2. Dr. D. B. Undirwade, DEE, Dr. PDKV, Akola, 3. Mr. S.G. Dabre, DSAO, Buldana, 4. Shri. Deepak Patel, SDAO, Khamgaon 5. Dr. C. P. Jaybhaye, Asso. Prof. ARS & Head KVK Buldana-II 6. Mr. V.L. Khondil, Campaign Officer, Z.P.Buldana 7. Mr. D.P. Wakode, TAO, Jalgaon Jamod 8. Mr. R.S. Nawkar, Agril.Officer, P.S. Jalgaon Jamod 9. Dr. Nagesh Parihar, LDO, Jalgaon Jamod, 10. Mr. V.R. Wankhade, KVIB, Buldana 11. Mr. R.F. Gawai, AO Sangrampur 12. Mr. Krushna Dawar, Progressive Farmers 13. Mr. Shrikrishna Sonone, Progressive Farmers 14. Mrs. Sangita Palkar, Progressive Farmers 15. Mrs. Meera Sonone, Progressive Farmers 16. Mr. Vikas Jadhao, Sr. Scientist & Head 17. KVK staff		KVK should promote most recent and climate resilient crop varieties among farming community. (Hon. Chairman of SAC)	KVK promoted short duration turmeric variety IISR Pragati & PDKV Waigaon, Soybean – Phule-Kimya, KDS-726, PDKV-Amba, Suvarn Soya, Pigeon pea- BDN 716, Chickpea – Phule Vikrant Sorghum – Suchitra, Revati Summer Gr Nut – Chaitanya
			KVK should create awareness regarding minimizing use of weedicides for healthy soil and maintaining microbial fauna in soil. (Hon. Chairman of SAC)	KVK celebrated World Soil Day, 3 trainings, 8 awareness & 16 demonstrations for promotion of natural farming.
			KVK should focus their work related to value added processing of pulses and fruits. (Hon. Chairman of SAC)	KVK promoted value added products such as milling opf pulses, 7 trainings on fruits & vegetable processing for enterpreneurs
			KVK should promote most promising eggs laying breeds of poultry birds. (Hon. Chairman of SAC)	KVK promoted the eggs laying breeds (CARI Nirbhik & Kaveri) through backyard poultry and distributed 300 1 month old chicks among 30 families from adopted villages
			KVK should provide genuine saplings of orange, sweet orange and vegetables to the farmers as per demand. (Hon. Chairman of SAC)	KVK produced 2000 nos saplings of orange and 10000 nos of vegetables
			KVK should work on water conservation activities on KVK instructional farm. (Hon. Chairman of SAC)	Soil & water conservation work will be conducted in the month of May 2023.

		KVK should take initiative in rearing various milching animal breeds at KVK demonstration unit. (Hon. Chairman of SAC)	KVK purchased 3 Gir & plan to rear different breeds of milching animals in newly constructed farm stead.
		Through Hatchery unit of KVK, farmers should get benefitted with chicks of various poultry birds. (Hon. Chairman of SAC)	KVK distributed 200 nos of day old chicks of Kaveri & Giriraja among farmers through backyard poultry.
		KVK should organize various trainings and awareness programmes on organic farming to motivate the farmers. (Hon. DEE, Dr. PDKV, Akola)	KVK organized 3 trainings, 8 awareness programme & 16 demonstrations for promotion of natural farming
		For effective management of PBW in KVK jurisdiction the IPM module suggested by Dr. PDKV, Akola should be promoted by KVK through various means. (Hon. DEE, Dr. PDKV, Akola)	From last 5 years KVK is promoting IPM module suggested by Dr. PDKV, Akola.
		KVK should promote the recently developed soybean varieties (Suvarn Soya and Amba) through various demonstrations on farmer's field. (Hon. DEE, Dr. PDKV, Akola)	KVK started to promote the said varieties from kharif 2022 itself among farming community through CFLD
		KVK should take initiative in increasing area under cereal crops such as Sorghum and Bajara and oilseeds such as Safflower, Linseed, Ground nut etc. (Hon. DSAO, Buldana)	KVK demonstrated the sorghum crop through FLD and Linseed & Ground nut through CFLD in 2021-22 & 2022-23
		KVK should conduct various training and awareness programmes regarding use of Nano-Urea by farmers. (Hon. DSAO, Buldana)	KVK created awareness about use of nano urea through various training & awareness programmes.
		To control the fruit fly in citrus crop, KVK should conduct various demonstrations /trainings on farmer's field. (Hon. DSAO, Buldana)	In different training programme on citrus cultivation, the awareness programmes on fruit fly were conducted in Jalgaon & Sangrampur blocks.

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 (2022)

S. No	Major Field Crop	Area (ha)	Production (MT)	Productivity (kg/ha)
Kharif Season				
1	Kharif Jowar	6695	7516.79	1122.75
2	Maize	25609	73344.18	2864
3	Bajra	585	351	600
4	Redgram	77957	80080	1027
5	Greengram	19220.50	13891.62	722.75
6	Blackgram	21580	16432.74	761.48
7	Soybean	387305	608910.85	1572
8	Ground Nut	355	346	974
9	Sesamum	976	236	242
10	Cotton	193903	91227.10	470.48
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 (2022)

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	0.0	2	40.3	26.7	45	23
June	126.8	8	36	25	61	54
July	376.6	13	28	22.1	89	82
August	243	10	29.7	21.9	84	73
September	218.5	8	29.7	22.3	86	84
October	151.5	4	29.8	20.4	80	76
November	0.0	1	29.2	13.9	55	47
December	0.0	1	29.4	15.6	69	54
Total / Average	**1140**	**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
14	14	138	138	19	19	520	520

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	168	3000	5421	180	393	8000	14513

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
Soybean- 10.0 qt	Soybean - 12.50 qt	Custard Apple, Lemon, Citrus, Guava - 15000	15278 No.
Chick pea - 12 .0 qt	Chick pea - 12 .0 qt	Turmeric rhizoms – 10 qt	14.0 qt
Wheat – 10.0 qt	Wheat – 10.0 qt	Garlic rhizoms – 0.5 qt	0.50 qt
Fodder sets CO5,CO4 – 4000nos.	5500 nos.	Sunhemp	0.40 qt
Azolla Culture 30 kg	35 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 2022

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)*
1	**Cereals**				
	--				
2	**Fibre crop**				
	Cotton	Heavy Infestation of Pink bollworm, sucking pest infestation	125000 ha (70 -80 %)	Sungaon, wadsinghi, Jalgaonjamod	FLD, Trainings, field visit, diagnostic visit
3	**Pulses**				
	Pigeaon pea	Low yield	22700 ha	Patan.Akola khurd,Hadiyamal	CFLD on Variety BDN716+ICM
		Pod borer complex	51000 ha, (70%)	Patan, Hadya Mhal	OFT, Trainings, field visit, diagnostic visit
		Wilt problem	47000 ha (65%)	Patan, Hadya Mhal	FLD, Trainings, field visit, diagnostic visit
	Chick pea	Wilt problem	15120 ha	Dhnora, Sagoda, Panchala	CFLD on improved wilt resistant variety RVG202 and Phule Vikram
		Pod Borer Helicoverpa armigera	85700 ha (65-70%)	Patan, Hadya Mhal	OFT , Trainings, field visit, diagnostic visit
	Blackgram	Heavvy Infestation of Pod Borer	15400 ha,(60 %)	Patan, Hadya Mhal	FLD, Trainings, field visit, diagnostic visit
4	**Oilseeds**				
	Soybean	Varietal Monoculture of JS-335, Low yield	148540 ha	Patan.Akola khurd,Hadiyamal	FLD of improved Variety Phule sangam and Phule Kimya
	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	250 ha	Sungaon	CFLD on Variety KDG160+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 attack	150ha	Hadiyamahal Tq Sangrampur, Jamod Tq Jalgaon	OFT on varietal evaluation
	Orange	Bahar management, Nutrient management	3500 ha	Sonala, Saaykhed, Tunki Tq Sangrampur	FLD on nutrient management, Training on nutrient management, crop management
	Onion	Thrips	2750 ha, (65 %)	Patan, Hadiyamahal	FLD, Trainings, field visit, diagnostic visit
6	**Livestock**				
	poultry	1.Low eggs production 2.Lack of nutritious diet 3.Low weight gain	8500	Umapur, Hadiyamahal, Patan Wasadi, Wadshingi	FLD Training, Group discussion,
	Goat	Ir- regular deworming Parasitic infestation Low body weight gain	2280	Charban, Patan, umapur, Sonala, Wadshingi, Wasadi	Training ,Group discussion
	Dairy animals	Loss of milk yield Repeat breeding Low conception rate Reduce breeding efficiency	1650	Palshi, Jalgaon, Patan, Wasadi, Sonala,	OFT,Training ,Group discussion
	Feed and fodder	Low production in cattle due to non cultivation of fodder crop	280 ha	Hadiyamahal, Patan, Wadgaon, Wasadi	FLD Training, Group discussion
	Backyard Poultry	1.Low eggs production 2.Lack of nutritious diet 3.Low weight gain	1520	Patan, Wadgaon, Hadiyamahal, Wasadi, Sonala,	FLD Training ,Group discussion
7	Farm Implement				
	PDKV BBF Planter	Low productivity in Maize, Labour intensive planting work.	12600ha	Wadgaon Patan, Nimbora, Wadshingi	OFT - Use of Tractor drawn BBF Planter
		Low productivity and high seed cost in groundnut	1101ha	Wadgaon Patan, Nimbora, Wadshingi	FLD on use of BBF Planter

		Low productivity and absence of soil and water conservation measure in rainfed soybean	36000ha	Wadgaon Patan, Nimbora, Wadshingi	Training cum Demo
		Difficulties in setting and adjustment of BBF Planter		Warwat Bakal, Wadgaon Patan, Nimbora, Wadshingi	Diagnostic visit for stting and adjustment of Planter
	PDKV Garlic planter	High cost of planting, labour and time-consuming practice	78 ha	Wadgaon Patan	OFT on use of PDKV Garlic Planter
	Cotton Slasher	Improper use of biomass in cotton crop, drudgery and time-consuming cotton uprooting traditional practice	48000ha	Wadgaon Patan, Nimbora, Wadshingi	FLD on use of cotton slasher
	PDKV mini dal mill	Absence of small-scale processing in pulses and value addition		Dhanora, Kajegaon, Dhanora Jangam	Training
	Subsoiler	Poor drained, hard & compacted soil	2400 ha	Wadgaon Patan, Nimbhora	FLD, training
8	Water Conservation	Low water table and decreasing area under irrigation	125000 ha	Warwat bakal, Charban, Sonala, Kajegaon, Chalthana, Chalis Tapari, Sungaon, Kherda, Wadgaon wan, Dhanora Jangam	Trainings
9	Processing and value addition	Low milling quality of cv PKV Tara in processing	25 No of dal mill units	Jalgaon Jamod, Nimgaon, Wadgaon Patan, Ghatpuri Nipana	Training on Improving milling quality of pigeon pea grain (Variety- PKV Tara.)
10	Micro Irrigation	High cost of micro irrigation unit	48000 ha	Wadgaon Patan	Training on Care and maintenance of Micro Irrigation unit

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

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crop	Human Health	TOTAL
Integrated Nutrient Management	0	0	0	0	0	0	0	0	1	0	**1**
Varietal Evaluation	0	1	0	0	2	0	0	0	0	0	**3**
Integrated Pest Management	0	0	2	0	0	0	0	0	0	0	**2**
Integrated Crop Management	0	0	0	1	0	0	0	0	0	0	1
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0	0
Weed Management	1	0	0	0	0	0	0	0	0	0	**1**
Resource Conservation Techn.	0	0	0	0	0	0	0	0	0	0	0
Farm Machineries	0	0	0	1	0	0	0	0	1	0	**2**
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	**1**	**1**	**2**	**2**	**2**	**0**	**0**	**0**	**2**	**0**	**10**

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	2	0	0	0	2
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	1	0	0	0	0	1
Feed and Fodder	1	0	0	0	0	1
Small Scale income generating enterprises	0	0	0	0	0	0
TOTAL	**2**	**2**	0	0	0	4

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	Pigeao pea	Management of pigeonpea pod borer complex	10	10	4.0
	Chickpea	Management of pod borer Chickpea	10	10	4.0
Farm Machineries	Garlic	Use of PDKV Garlic Planter	15	15	6.0
	Ajwain	Use of ajwain thresher	15	15	6.0
Weed Management	Wheat	Assess the performance of Post emergence weedicide application (Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+ 0.004 kg ai /ha) at 35DAS for controlling weed flora in wheat	07	07	5.6
Total			**98**	**98**	**44.8**

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
Evaluation of breeds	Poultry	Assesment of performance new varity Kaveri breed under back yard poultry	10	10
Production and Management	Dairy Cow	Indction of oestrous in anoestrous cow	10	10
Total			**40**	**40**

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
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 - 126.85 T2 - 136.62 T1 - 17.54 T2 - 24.85 T1 - 4.12 T2 - 4.30 T1 - 1.15 T2 - 1.38 T1 - 12.86 T2 - 15.42	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 (19.90 % 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	No	--
Wheat	Irrigated, Medium Black soil	High weed intensity	Assess the performance of Post emergence weedicide application (Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+ 0.004 kg ai /ha) at 35DAS for controlling weed flora in wheat	7	Metsulfuran Methyl@ 20gram a.i./ha at 35 DAS Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+ 0.004 kg ai /ha	Weed Count (nos/sqm) Weed Dry Matter (grams/sqm)) WCE (%) Yield (qt/ha)	T1 - 24.1 T2 - 6.4 T3- 4.5 T1 - 21.4 T2 - 4.8 T3- 3.3 T1 - - T2 - 73.44 T3- 81.33 T1 - 42.72 T2 - 44.75 T3 – 45.59	Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+ 0.004 kg ai /ha) at 35DAS controls both type of weed narrow and broad leaves weed	Post emergence weedicide application (Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+ 0.004 kg ai /ha) at 35DAS controls weed flora	No	--

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 Distric	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 - 47.2 T2 - 59.4 T3- 59.8 T1 - 31.43 T2- 34.29 T3- 54.29 T1 - 19.59 T2 - 21.47 T3- 22.09	suvrna soya and amba varities of soybean gives at par yield 21.47 and 22.09 qt/ha which are 12.79 % and 9.63% 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 JS335.	No	
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	T1-210.59, T2-234.11, T3- 225 T1- 275, T2- 279, T3- 276 T1- 3.36 T2- 3.67 T3 – 3.50		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	T1-360 T2-458.06 T3- 438.05 T1-85.76 T2-96.84 T3- 98.43 T1-3.06 T2-4.01 T3- 3.83		Bhima shakti bulbs are greater in size, yield is more than Bhima kiran, good storability	NIL	NIL
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	T1-113.89 T2-115.75 T3- 120.36 T1-40.21 T2-47.08		G41 variety bulb greater in size. Good pungency		

						B:Cratio	T3- 55.23 T1-4.14 T2-4.10 T3- 4.26				
Pigeaon pea	Protective irrigation	Major Pulse crop in Buldana district in kharif season growing on 72402 ha area (2019) with Avg productivity of 624 Kg /ha. from last few year	Management of pigeonpea pod borer complex	10	T1- Farmers practice- 2 to 3 sprsysof Proenophos @40 ml , Emamectin Benzoate 5 SG 10 g/10 lit water ,Chlorantraniliprole 18.5% SC @3 ml per 10 lit 10 lit T2 - 1st spray - Chlorantraniliprole 18.5% SC @3 ml per 10 lit water at 50 per cent flowering 2nd spray- Flubendiamide 39.35 SC @2 ml per 10 lit water at pod filling stage T3 - 1st spray Azadirachtin 300 ppm 50 ml /10 lit water 50% flowering, 2nd Spray Emamectin Benzoate 5 SG 4.4 g/10 lit water based on ETL, 3rd spray Lamdacyhalothrin 5 EC 10 ml/10 lit water based on ETL	Pod Damage % Cost of pp/ ha Yield q/ha Pod Damage % Cost of pp /ha Yield q/ha Pod Damage % Cost of pp/ ha Yield q/ha	14.65 5500/- 10.63 3.52 4750- 13.54 4.35 4000/- 12.69	T2 treatment is effective over T3& farmers practice	Farmers appreciate T2 treatment	No	No

Chick pea	Irrigated	Aor rabi crops in buldana district .with Avg productivity 1329 kg per hacture .area under the crop is 160241 Ha	Management of pod borer	10	T1- Farmers practice-2 to 3 sprsysof Proenophos @40 ml , Emamectin Benzoate 5 SG 10 g/10 lit water ,Chlorantraniliprole 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 Chlorantraniliprole (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 Dr.PDKV, Akola T3– IPM Package Clean cultivation . Erection of bird purchers on chickpea field @ 50 ha after 30 days of crop sowing Installation of Phoromone traps @ 5 / ha Spraing of NSE 5% at flowering Spraying of He ar NPV @ 500 LE/ ha at the time of pood	Larvae per MRL Cost of pp/ha Yield q/ha Larvae per MRL Cost of pp/ha Yield q/ha Larvae per MRL Cost of pp/ha Yield q/ha	2.7 4450/- 15.03 0.8 3050/- 18.17 0.6 3050/- 19.17	T2 treatment is effective over T3& farmers practice	Farmers appreciate T2 treatment	No	No

					formation. spraying of Emabactin Benzoate 5% SG @ 4 gram per 10 of water at pod filling stage Dr. VNMKV Parhani Joint Agrosco -2017						
Cattle	--	Low fodder production Low nutritious feed &fodder Non cultivation of fodder crop	Assess the performance of Fodder crop CO5	08	Cultivation of CO5 fodder	Avg. Yield of fodder (ton/ha) Avg. milk yield, lit/day	364.2 4.200	23.53 % 23.80%	Due to this technology increase in yield of fodder and milk yield	No	No
Poultry	--	Low eggs production, low growth rate, low weight gain, economic loss	Assess the performance of new Kaveri breed under backyard poultry	11	Rearing of Kaveri birds	Avg. body weight gain (kg/ bird) Avg. Eggs production (No)	2.600 158	46.15 73.41	Due to this eggs production, weight gain increase	No	No
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 06		Due to synchronization with Ovisynch protocol animal shows better response 80 % and conception rate 60 %	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)	2.700 172	46.15 73.41	Due to this eggs production, weight gain increase	No	No

Garlic	Rabi-Irrigated	High labour cost in planting manualy	To assess the performance of PDKV Garlic planter	15	PDKV Garlic planter	Cost of operation (Rs/ha) Time of Operation (Hr/ha) Yield (q/ha)	T1-30000 T2-2500 T1-150 man days per ha T2-2.5 hr/ha T1-48.23 T2-52.49	Cost of operation reduced by 27500/ Time of operation reduced by 150 man days per ha Inc. in yield 8.9per cent	The PDKV Garlic planter if found labour and time saving method in planting operation of garlic	Seed covering device should be developed	
Ajwain	Kharip Rainfed	Unavailability of proper threshing equipment	To assess the performance of Ajwain seed extractor	15	PDKV Ajwain seed extractor	Cost of operation Rs/qt Time of operation hr/ha Output capacity Qt/hr Seed Germination %	T1-1300/- T2-600/- T1-36.45 T2- 24.96 h T1-2.70 T2-1.33 T1-83.47 T2- 88.76	Reduction in cost of operation Rs. 700/- per qt Reduction in time of threshing &Winnowing operation Capacity of machine is low (2hp)	Power source should be changed from electricity to diesel /petrol. Output capacity of machine should be increased. .	Hopper capacity should be optimize Desigh of hopper should be safe for operation. High of outlet should be increased. Capacity output of machine should be increased. Electric power source should be replaced by diesel operated as electricity is constraint on Indian farm	

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) No weddicide spraying		4272	kg/ha	41483	2.39
Technology option 2- Spraying Of Metsulfuran Methyl@ 20gram a.i./ha at 35 DAS	PDKV Akola	4475	kg/ha	45455	2.53
Technology option 3- Spraying Of Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+0.004 Kg ai/ha at 35 DAS	PDKV Akola	4559	kg/ha	48997	2.62
Technology option 1 (Farmer's practice) (Sowing of Cv JS335)		1959	kg/ha	59925	2.55
Technology option 2- Sowing of Cv AMS100-39 (PDKV Amba)	PDKV Akola	2147	kg/ha	68576	2.77
Technology option 3 -Sowing of Cv AMS-MB5-18 (Suvarn Soya)	PDKV Akola	2209	kg/ha	71522	2.84
Technology option 1 (Farmer's practice) (No Spraying of Gibrelic acid on Rainfed Bt. Cotton)		1286	kg/ha	57896	2.29
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	1542	kg/ha	75566	2.58
(TURMERIC) Technology option 1 (Farmer's practice)	Farmers practice	210.59	qt/ha	222135	3.36
T2- Foliar spray of Turmeric special micronutrient @ 5gm/lit	IISR, Kozhikode	234.11	qt/ha	255665	3.67
T3 - Foliar application of Boron, Fe & Zn @ 375gm/acre at vegetative growth stage, two sprays at 25 days interval	TNAU, Coimbatore	225.00	qt/ha	241100	3.50
(ONION) Technology option 1 (Farmer's practice)	Farmers practice	360	qt/ha	145500	3.06
T2- Bhima Shakti	DOGR, Rajgurunagar Pune	458.06	qt/ha	206386	4.01
T3- Bhima Kiran	DOGR, Rajgurunagar Pune	438.05	qt/ha	194380	3.83

(GARLIC) Technology option 1 (Farmer's practice)	Farmers practice	113.89	qt/ha	215975	4.14
T2 : G-41	DOGR, Rajgurunagar Pune	115.75	qt/ha	218875	4.10
T3 : AKG-7	NHRDF, Lasalgaon	120.36	qt/ha	230400	4.26
T1- 2 to 3 sprsysof Proenophos @40 ml , Emamectin Benzoate 5 SG 10 g/10 lit water, Chlorantraniliprole 18.5% SC @3 ml per 10		1063	Kg/ha	64290/-	4.09
T2- 1st spray - Clorantraniliprole 18.5 SC @3 ml per 10 lit water at 50 per cent flowering 2nd spray- Flubendiamide 39.35 SC @2 ml per 10 lit water at pod filling stage	Dr. VNMKV, Joint Agresco-2019	1354	Kg/ha	94465/-	5.58
T3 -1st spray Azadirachtin 300 ppm 50 ml /10 lit water 50% flowering 2nd Spray Emamectin Benzoate 5 SG 4.4 g/10 lit water based on ETL 3rd spray Lamdacyhalothrin 5 EC 10 ml/10 lit water based on ETL	Major uses of Pesticides, CIBRC publication 2018	1269	Kg/ha	88240/-	5.49
T1 - 2 to 3 sprsysof Proenophos @40 ml , Emamectin Benzoate 5 SG 10 g/10 lit water, Chlorantraniliprole 18.5% SC @3 ml per 10 water		1503	Kg/ha	52785/-	2.93
T2- 1st spray - Spraying of Ethion 50% EC @ 20 ml in 10 L of water at 50 per cent flowering of Chickpea followed by second spraying of Chlorantraniliprole (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	Dr PDKV , Akola 2019	1817	Kg/ha	70655/-	3.70
T3 – IPM Package- Clean cultivation, Erection of bird purchers on chickpea field @ 50 ha after 30 days of crop sowing, Installation of Phoromone traps @ 5 / ha Spraing of NSE 5% at flowering Spraying of He ar NPV @ 500 LE/ ha at the time of pood formation. spraying of Emabactin Benzoate 5% SG @ 4 gram per 10 of water at pod filling stage.	VNMKV, Parbhani -2017	1917	Kg/ha	78856/-	4.02
Technology T1(Farmer practice) : Cultivation of Jaywant Fodder		3.200	lit/day	180550/-	2.84
T2 : Cultivation of CO4 fodder	Dr. P.D.K.V	3.800	lit/day	244050/-	3.49
T3 : Cultivation of CO5fodder	Akola	4.200	lit/day	266250/-	3.71
T1 :Deshibirds		42	no of eggs	3040	3.73
T2 :Giriraja birds	Central poultry	144	no of eggs	12020	4.30
T3 : Kaveri birds	development	158	no of eggs	14530	4.38

	organization Odisha				
T1 – Feed and fodder T2 – T1 + Inj.Vit AD3+ Deworming +mineral mixture T3 – T2 + Inj GnRh + Inj. PGF2Alpha	MAFSU, Nagpur	Induction response in treated cow 01Nos 02 Nos 08 no. Conception rate -00 nos 02 nos 06 nos	--	--	--
T1 :Deshibirds T2 :Kaveri birds T3 : CARI-Nirbhik birds	Central Avian Reasearch Institute, Izzatnagar	44 no of eggs 156 no.of eggs 172 no.of eggs		3140 12000 15570	2.76 4.22 4.52
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

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 Post emergence weedicide application (Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+ 0.004 kg ai /ha) at 35DAS for controlling weed flora in wheat
2. **Problem Definition:** The wheat fields are mostly infected by monocot and dicot weeds shift in weed flora in favour of broad-leaved weeds or narrow leaf weeds was observed. Hence, it is essential to identify alternative herbicide molecules with broad spectrum activity for sustainable weed management in wheat. Therefore, an on-farm trial was conducted to check the effectiveness of post-emergence herbicides in weed control in wheat
3. **Details of technologies selected for assessment:**
   T1- Farmer Prctice
   T2- Spraying of Metsulfuran Methyl@ 20gram a.i./ha at 35 DAS
   T3 –Spraying of Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+0.004 Kg ai/ha at 35 DAS
4. **Source of technology:** - PDKV, Akola
5. **Production system and thematic area**: - Weed Management
6. **Performance of the Technology with performance indicators**: -

Performance indicator	T1	T2	T3
Weed Count (nos/sqm)	24.1	6.4	4.5
Weed Dry Matter (grams/sqm)	21.4	4.8	3.3
WCE(%)	--	73.44	81.33
Yield (qt/ha)	42.72	44.75	45.59

Treatment T3 (clodinafop 15% + metsulfuron methyl 1% WP @ 0.06+0.004 Kg ai/ha) at 35 DAS reduced the weed count from 24.5 to 4.5 and weed dry matter recorded at 60 DAS from 21.4 to 3.3 g/m2 .with higher WCE (81.33%) effective control of grassy and broad leaves weeds which resulted in decreased biomass of weeds and thereby increased weed control efficiency.

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

Sr no	Prameters	Matrix scoring
1	Weed count nos/seqm	4
2	Weed Dry Matter (grams/sqm))	4
3	WCE (%)	5
4	Yield(qt/ha)	4
5	Affordability	4
6	Acceptability	3

8. **Final recommendation for micro level situation**: For effective control of grassy and broad leaves weeds in wheat post emergence weedicide (clodinafop 15% + metsulfuron methyl 1% WP @ 0.06+0.004 Kg ai/ha) alternative herbicide molecules with broad spectrum activity for sustainable weed management in wheat.
9. **Constraints identified and feedback for research** : no 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 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 post emergence weedicide (clodinafop 15% + metsulfuron methyl 1% WP @ 0.06+0.004 Kg ai/ha) controls both narrow and broad leaves of weeds

Assessment (Agronomy)-II

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)	47.2	59.4	59.8
No.of pods/plant	31.43	34.29	54.29
Yield (qt/ha)	19.59	21.47	22.09

   Suvrna soya(T3) and Amba(T2) verities of soybean gives at par yield 21.47 and 22.09 qt/ha which are 12.79 % and 9.63% 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)-III

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)	126.85	136.62
No.of Bolls/plant	17.54	24.85
Bolls weight (gm)	4.12	4.30
Rain water Use Efficiency(Kg/mm/ha)	1.15	1.38
Yield (qt/ha)	12.86	15.42

   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 (19.90 % 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) –IV

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	210.59	234.11	225
Average crop duration, days	275	279	276

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) –V

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) –VI

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/ha	113.89	120.36	115.75
Average crop duration	140.21	134.08	131.23

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.

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)-VII

1. **Title of Technology Assessed** -- Management of pigeonpea pod borer complex
2. **Problem Definition** -- Major Pulse crop in Buldana district in kharif season growing on 72402 ha area (2019) with Avg productivity of 624 Kg /ha. from last few year incidence of pod borer complex was found ,which result in reduction in yield 35-40 %
3. **Details of technologies selected for assessment**

   T1 - 2 to 3 sprays of Profenophos @40 ml, Emamectin Benzoate 5 SG 10 g/10 lit water Chlorantraniliprole 18.5% SC @3 ml per 10 lit Water

   T2 - 1st spray -Clorantraniliprole 18.5 SC @3 ml per 10 lit water at 50 per cent flowering
   2nd spray- Flubendiamide 39.35 SC @2 ml per 10 lit water at pod filling stage

   T3 -1st spray Azadirachtin 300 ppm 50 ml /10 lit water 50% flowering
   2nd Spray Emamectin Benzoate 5 SG 4.4 g/10 lit water based on ETL
   3rd spray Lamdacyhalothrin 5 EC 10 ml/10 lit water based on ETL

4. **Source of technology** -- Dr. VNMKV, Joint Agresco- 2019 and Major uses of Pesticides, CIBRC publication 2018
5. **Production system and thematic area** -- Soybean based Production system, Integrated Pest Management
6. **Performance of the Technology with performance indicators**

Performance indicator	T1	T2	T3
Pod damage (%)	14.65	3.52	4.35
Cost of PP(Rs/ha)	5500/-	4750/-	4000/-
Yield(qt/hq)	10.63	13.54	12.69
Increase in Yield	27.42		19.35

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

Sr no	Prameters	Matrix scoring	
		T2	T3
1	Pod damage (%)	3	2
2	Cost of PP(Rs/ha)	2	3
3	Yield (qt/ha)	3	2
4	Affordability	3	3
5	Acceptability	4	3

8. **Final recommendation for micro level situation**
   The technology T2 and T3 performs well and need to conduct OFT in next year at farmer field.

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

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)-VIII

1. **Title of Technology Assessed --** Management of pod borer in Chickpea
2. **Problem Definition** -- Major Pulse crop in Buldana district in Rabi season growing on 177025 ha area with Avg productivity of 1329 Kg /ha from last few year incidence of pod borer was found ,which result in reduction in yield 30 to 40 per cent.
3. **Details of technologies selected for assessment**

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

   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 Chlorantraniliprole (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 (Dr.PDKV, Akola -2019)

   T3 – Clean cultivation, Erection of bird purchers on chickpea field @ 50 ha after 30 days of crop sowing, Installation of Phoromone traps @ 5 / ha, Spraying of NSE 5% at flowering, Spraying of He ar NPV @ 500 LE/ ha at the time of pod formation stage Sprayng of Emabactin Benzoate 5% SG @ 4 gram per 10 of water at pod filling stage (Dr VNMKV Parbhani -2017)
4. **Source of technology --** Dr. PDKV ,Akola .-2019 Dr. VNMKV, Joint Agresco- 2017
5. **Production system and thematic area --** Soybean based Production system, Integrated Pest Management
6. **Performance of the Technology with performance indicators**

Performance indicator	T1	T2	T3
Pod damage (%)	2.7	0.8	0.6
Cost of PP(Rs/ha)	4450/-	3050/-	3050/-
Yield(qt/hq)	15.03	18.17	19.17
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	Pod damage (%)	3	2
2	Cost of PP(Rs/ha)	2	2
3	Yield (qt/ha)	2	2
4	Affordability	3	3
5	Acceptability	2	3

8. **Final recommendation for micro level situation**
   The technology T2 and T3 performs well and need to conduct OFT in next year at farmer field.

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

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 (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)	48.23	52.49
Net Return (Rs/ha)	95000/-	143800/-
B:C Ratio	1.65	2.09
Cost of Operation Rs/ha	1	4
Labour requirement	1	4
Field capacity	1	4
Time of Operation	1	4
Acceptability	1	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: 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	02	04

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
	Affordability	3	1
	Acceptability	02	02

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 (Vet. Sci) – XI

1. Title of Technology Assessed: To assess the performance of hybrid Napier fodder crop CO5

2. Problem definition

In Buldana District, there is a major problem of Low yield of fodder production, low nutritious fodder given to animals most of the farmers are feeding agriculture waste produce in farm. Non availability of green fodder throughout the year. Due to which growth rate & milk yield reduced resulting economic loss.

3. Details of technologies selected for assessment

T1 : Cultivation of Jaywant
T2 : Cultivation of CO4
T3 : Cultivation of CO5

4. Source of technology : Dr. P.D.K.V, Akola

5. Production system thematic area: Feed and Fodder management

6. Performance of the Technology with performance indicators

Table: Performance of the Technology with performance indicators

Performance indicator	T1 (Cultivatin of Jaywant)	T2 (Cultivation of CO4)	T3 (Cultivation of CO5)
Avg. Yield of fodder(Ton/ha)	278.5	342.0	364.2
Avg. milk yield	3.200 lit/day	3.800 lit/day	4.200 lit/day
Net Returns (Rs/ha)	278500	342000	364200
B:C	2.84	3.49	3.71
Increase in Yield	23.53 %		

Description of the Result

When the Technology was assessed on 10 farmers field gives 23.53 % more fodder yield and milk yield 23.80 % in T3 than Farmer practice

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

This cultivation of CO5 fodder grass gives better result

Sr no	Prameters	Matrix scoring
1	Avg. Yield of fodder	4
2	Avg. milk yield	3
3	Affordability	4
4	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 Fodder CO5 gives better result.

Assessment (Vet. Sci) – XII

1. Title of Technology Assessed: To assess the performance of new variety Kaveri breed under Backyard poultry.

1. 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: Giriraja birds (1 month's age)
T3: Kaveri birds (1 month's age)

4. Source of technology : Central poultry development organization Odisha, 2014

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 (Deshi birds)	T2 (Giriraja)	T3 (Kaveri)
Avg. body weight gain (kg/ bird)	1.400	2.250	2.600
Avg. Eggs production (No)	42	144	158
Net Returns (Rs/ha)	2980	11516	14675
B:C	2.73	4.30	4.38
Increase in Yield	46.15 %		

Description of the Result

When the Technology was assessed on 10 farmer's field gives 73.41 % more Av. eggs production and avg. weight gain 46.15 % than Farmer practice

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

This cultivation of CO5 fodder grass 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 Kaveri breed is given better result.

Assessment (Vet. Sci) – XIII

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

1. 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	04	09
Conception rate	00	02	07
Increase in percentage	55.55 %		

Description of the Result

When the Technology was assessed on 10 farmer's field gives 55.55 % more induction response and conception rate 71.42 % 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	4

8. Final recommendation for micro level situation

This technology performs well and need

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) – XIV

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)	1.450	2.500	2.700
Avg. Eggs production (No)	44	156	172
Net Returns (Rs/ha)	3140	12000	15570
B:C	2.76	4.22	4.52
Increase in Yield	46.29 %		

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 2022 and recommended for large scale adoption in the district

S. No	Crop/ enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	**Cereals**						
	Maize	Integrated pest management	Management of FAW	FLD, Trainings	45	578	410
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
	Pigeaon pea	Integrated Pest management	Management of wilt	FLD, Trainings	115	2750	780
3	**Oilseed Crop**						
	Soybean	ICM	Seed Treatment of Biofertilizer and Vitavax power+Thimathoxan30FS	Demonstration, Field Day, Training	450	4500	5000
	Soybean	Integrated Pest Management	Management of stem fly	FLD, Trainings	110	4550	2550
	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**						
	--	--					

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	CMT Kit	Control & prevention of matatis	Training, Demonstrations	12	325	--
	Goat	Dewormer	Use of Inj. Ivermectin to control endo-ecto paracite	Training, Demonstrations	41	760	--
8	**Home Sci**						
	Super grain Bag (wheat)	Value addition	Super grain Bag	Training, Demonstration, Literature, Exhibitions	35	75	--
	vegetable	Post harvest technology	Zero energy vegetable preservater	Training ,Exibition	25	60	--

B. Details of FLDs implemented during 2022 (Kharif 2022, Rabi 2021-22, Summer 2022) (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

Sl. No.	Crop / 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	Chickpea	ICM	Variety+ICM	Rabi 2021-22	10	10	2	23	25	--
2	Summer Greengram	ICM	Variety+ICM	Summer 2022	30	30	27	48	75	--
3	Pigeonpea	ICM	Variety+ICM	Kharif 2022	20	20	19	31	50	--
4	Pigeaon pea	Integrated Disease management	Treat the seed of pigeon pea with combined product of fungicide Carboxin 37.5% + Thiram 37.5 % @ 3 g/kg followed by Trichoderma virde @ 10 g/ kg seed to reduce the wilt incidence and more monitary return	Kharif 2022	10	10	25	0	25	--
5	Black gram	Integrated pest management	1st spray of Monocrotophos 36 SL @12.5 ml/10 liter of water at bud formation stage and 2nd spray Clorantriniliprole 18.5% @ 2 ml per 10 lit of water after 15 days of 1st spary.	Kharif 2022	10	10	03	22	25	--
Oilseed Crops										
1	Linseed	ICM	Variety	Rabi 2021	10	10	6	19	25	--
2	Summer Groundnut	ICM	Variety+ICM	Summer 2022	20	20	7	43	50	--

3	Soybean	ICM	Variety+ICM	Kharif 2022	20	20	20	30	50	--
4	Soybean	Integrated pest management	Seed treatment with Thiamethoxam 30 FS @ 10 ml/kg seed followed by ETL based spray of Clorantiniliprole 18.5 % SC @ 60ml per Acre	Kharif 2022	10	10	03	22	25	--
Cotton & Commercial Crops										
1	Cotton	Integrated pest management	Sparying of profenophos 50 EC @ 20 ml per 10 lit water at 60 DAS followed Emamectin benzoate 5 SG @ 4.4 g per 10 lit water at 80 DAS and 3rd spray Lambda cyhalothrin 5 EC @ 10 ml per 10 lit water at 100 DAS	Kharif 2022	10	10	25	0	25	--
Horticultural Crops										
01	Orange	Nutrient management	Microbial consortium develop by IISR, Kozhikode to improve nutrient use efficiency in Nagpur Mandarin	Karif 2022	5.6	5.6	12	02	14	--
02	Turmeric	Varietal evaluation	Varietal demonstration of IISR Pragati	Rabi 2021-22	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	Summer 2022	--	--	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											
Chickpea	Rabi 2021-22	Irrigated	Medium to Heavy	L	L	VH	Soybean	First week of Nov21	First week of March	1116	--
Summer Greengram	Summer 2022	Irrigated	Medium	L	L	H	Wheat	Last week of Feb.to first week of March	First week of May	1116	--
Pigeonpea	Kharif 2022	Rainfed	Mediumto Heavy	L	L	VH	Cotton	Last week of June to First week of July	Last week of Jan	1116	51
Pigeaon pea	Kharif 2022	Rainfed	Medium to Heavy soil	Low	Low	High	Soybean	2nd & 3rd week of June2022	Last week of December 2022 and 1st week of Jan 2023	1116	51
Blackgram	Kharif 2022	Rainfed	Medium to Heavy soil	Low	Low	High	Cotton	2nd & 3rd week of June 2022	1st fortnight of October2022		
Oilseed											
Linseed	Rabi 2021-22	Irrigated	Medium to Heavy	L	L	VH	Soybean	First week of Nov21	First week of March	1116	--
Summer Groundnut	Summer 2022	Irrigated	Medium	L	L	H	Cotton	First fortnighrt of Jan to first week of Feb.	Last week of May	1116	--
Soybean	Kharif 2022	Rainfed	Medium to Heavy	L	L	VH	Cotton	Last week of June to First week of July	First week of Oct	1116	51
Soybean	Kharif 2022	Rainfed	Medium to Heavy soil	Low	Low	High	Cotton	2nd & 3rd week of June2022	2st fortnight of October 2022	1116	51

Cotton & Commercial Crops											
Cotton	Kharif - 2022	Rainfed	Medium to Heavy soil	Low	Low	High	Soybean	2nd & 3rd week of June2022	Last week of December 2022	1116	51
Horticultural Crops											
Orange	Karif 2022	Irrigated	Deep black to medium black cotton soil	Low	Low	High	--	Year - 2016	Feb-2022	1116	51
Turmeric	Rabi 2021-22	Irrigated	Deep black to medium black cotton soil	Low	Low	High	Onion	Kharif-2022	Summer-2022	1116	--
Onion	Summer 2022	Irrigated	Deep black to medium black cotton soil	Low	Low	High	--	Rabi-2022	Kharif-22	1116	--

Technical Feedback on the demonstrated technologies

S.No.	Feedback
Pulses Crops	
Chickpea	Variety RVG202 and Phule Vikram Gives 20.58% More Yield than JAKI9218 and Resistant to wilt
Summer Greengram	Summer Greengram Variety PDM139 gives 28.30% more yield than Local Variety and Ressistant to Yellow vain Mosaic
Pigeon Pea	Variety BDN716 is Resistant yo wilt and and gives 28.49% more Yield
Pigeon pea (PP)	Seed treatment of combined fungicide followed by Trichoderma is effective for management of wilt and gives 23.24 % more yield.
Blackgram	This technologies is effective and gives 17.48 % more yield than farmer practice
Oilseed Crops	
Linseed	Linseed PKV NL260 Gives 21..08more Yield than Local variety
Summer Gound Nut	Variety KDG160 gives 19.43% moreYield of Pods and Straw and Resistant to Tikka Diseases
Soybean	Variety Phule Sangam Gives30.16% More Yield Than JS335
Soybean (PP)	This technologies is effective and gives 24.22 % more yield than farmer practice
Cotton & Commercial Crops	
Cotton	This technologies is effective to reduce boll damage and gives 21.93 % more yield than farmer practice
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	
Chickpea	Variety RVG202 and Phule Vikram Gives More Yield than JAKI9218 and Resistant to wilt
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
Pigeon pea (PP)	Seed treatment of combined fungicide followed by Trichoderma is effective for management of wilt.
Blackgram	Spraying of Clorantrniliprole is effective for management for pod borer in black gram

Oilseed Crops	
Linseed	Linseed PKV NL260 Gives more Yield than Local variety
Summer Ground Nut	Variety KDG160 gives more Yield of Pods and Straw and Resistant to Tikka Diseases
Soybean	Variety Phule Sangam Gives More Yield Than JS335
Soybean (PP)	Seed treatment with Thiamethoxam 30 FS @ 10 ml/kg seed is effective for management of stem fly and girdle beetle
Cotton & Commercial Crops	
Cotton	ETL based spraying of recommended insect ices gives effective control of pink bollworm and reduce the cost of plant protection
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	24/11/22, 5/3/2022,14/3/2022,9/5/2022,10/10/2022,	287	
2	Farmers Training	14	17.6.2022,22.6.2022,1.08.2022 and 6.8.2022, 19/07/22, 11/02/22,19/09/22,23/05/22, 5/1/2022,10/3/22,15/3/2022,3/5/22,1/11/2022	424	
3	Media coverage	10	11/2/2022,10/3/2022,16/3/2022,20/3/2022 ,11/5/2022.29/6/2022	--	
4	Training for extension functionaries	--	--	--	

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	Variety	Variety	Phule Sangam & Phule kimya	50	20	30.02	24.48	25.46	19.56	30.16	39893	145139	105246	3.64	38712	111502	72790	2.88
Soybean	IPM	Seed treatment with Thiamethoxam 30 FS @ 10 ml/kg seed followed by ETL based spray of Clorantiniliprole 18.5 % SC @ 60ml per Acre for management of stem fly.	KDS-726	25	10	25.60	22.4	25	20.13	24.22	34875	130000	95125	2.75	35875	104676	68801	1.91
Linseed	Variety	Variety	PKVNL 260	25	10	5.44	4.24	4.71	3.89	21.08	20832	32970	12139	1.58	20209	27230	7022	1.35
Groundnut	Variety	Variety KDG160+ICM	KDG160	50	20	26.2	18.16	21.08	17.65	19.43	58256	137944	76688	2.36	55277	114735	59458	2.07

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	50	20	13.90	10.70	11.99	9.33	28.49	22418	99261	76844	4.43	22166	77250	55084	3.49
Greengram	Variety	Variety+ICM	PDM139	75	30	14	7.52	9.64	7.41	30.09	27845	52597	24743	1.88	27731	40392	12661	1.45
Chickpea	ICM	Variety +ICM	Phule Vikram & RVG202	25	10	25.1	22.18	23.61	19.58	20.58	31767	123952	92185	3.90	30612	102777	72166	3.36

Pigeonpea	IDM	Treat the seed of pigeon pea with combined product of fungicide Carboxin 37.5% + Thiram 37.5 % @ 3 g/kg followed by Trichoderma virde @ 10 g/ kg seed to reduce the wilt incidence in pigeaon pea.	Charu BSMR-736	25	10	11.20	9.20	10.48	8.50	23.24	21375	83840	62465	2.92	20375	68000	47325	2.33
Blackgram	IPM	1st spray of Monocrotophos 36 SL @12.5 ml/10 liter of water at bud formation stage and 2nd spray Clorantriniliprole 18.5% @ 2 ml per 10 lit of water after 15 days of 1st spary for management of pod borer in Blackgram.	TAU-9	25	10	8.60	7.20	8.40	7.15	17.48	21375	54600	31225	1.46	22125	46475	24330	1.09

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	Sparying of profenophos 50 EC @ 20 ml per 10 lit water at 60 DAS followed Emamectin benzoate 5 SG @ 4.4 g per 10 lit water at 80 DAS and 3rd spray Lambda cyhalothrin 5 EC @ 10 ml	25	10	24.80	20.80	24.60	20.18	21.93			47675	184500	136875	2.87	47875	151305	103430	2.16

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	145.73	110.76	130.45	128.75	1.32	2.60	2.48	56890	391350	334460	6.87	71112	321875	250763	4.52
Spices & condiments																			
Turmeric	Variety Introduction	Varietal demonstration of IISR Pragati	14	5.6	240.19	196.53	215.35	187.44	14.89	Wt of bunch (gm) 1230	Wt of bunch (gm) 1075	93750	215000	121250	2.29	95500	187000	91500	1.95

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	205.80	164.38	192	159	20.75	Wt. loss of bulb% 15	Wt. loss of bulb% 26	6100	192000	185900	31.47	5600	15900	153400	28.39

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

Frontline Demonstration on Nutri cereals – 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	--	-	Avg.milk yield	-	-	-	-	-	Result awaited-	-	--	-
Poultry	Backyard poultry	performance new variety Kaveri breed under back yard poultry	10	10 birds of 1 months age	Avg.Eggs production	--	-	Avg.weight gain	-	-	-	-	-	Result awaited			

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.)			
					Demonstration	Check		Demonstration	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
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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 Sowing 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	0	0	0	0	0	600/-	600/-
Cotton Slasher	Cotton	Use of cotton slasher for agro waste management	25	10	Biomass utilized t/ha Labour req.	4.68 0.25	0.2 17	224% 17	18	0	0	18	500	500	0	1000
BBF Planter	Maize	Use of BBF Planter for sowing of Maize crop	25	10	Cost of Operation Rs/ha Time (ha/hr) Yield q/ha	6000/- 2.4 hrs 56.86	2500//- 2.5 hrs 64.23	Saving in cost Rs. 3500/- Time saving 950% 13 per cent inc. in yield	0	30 man days	0	30	0	3500/-	0	3500/-

Subsoiler	Cotton	Use of Subsoiler for resource conservation	15	06	Yield, qt/ha m.c. %	15.6 28.83	13.45 21.96	15.98% 22.10	01	0	0	01	300/-	0	0	300/-

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										
Resource Conservation Technologies	1	13	0	13	2	0	2	15	0	15
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	6	205	19	224	63	63	126	268	82	350
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Total	**7**	**218**	**19**	**237**	**65**	**63**	**128**	**283**	**82**	**365**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	2	50	02	52	0	0	0	50	2	52
Total (a)	**2**	**50**	**02**	**52**	**0**	**0**	**0**	**50**	**2**	**52**
b) Fruits										
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Total (b)	0	0	0	0	0	0	0	0	0	0
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 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										
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)	**2**	**50**	**02**	**52**	**0**	**0**	**0**	**50**	**2**	**52**

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	2	8	0	8	1	11	12	9	11	20
Disease Management	0	0	0	0	0	0	0	0	0	0
Total	**2**	**8**	**0**	**8**	**1**	**11**	**12**	**9**	**11**	**20**
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	1	0	25	25	0	2	2	0	27	27
Total	**1**	**0**	**25**	**25**	**0**	**2**	**2**	**0**	**27**	**27**
VI Agril. Engineering										
Farm Machinery and its maintenance	1	5	0	5	2	0	2	7	0	7
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0
Total	**1**	**5**	**0**	**5**	**2**	**0**	**2**	**7**	**0**	**7**
VII Plant Protection										
Integrated Pest Management	2	29	20	49	14	0	14	43	20	63
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0
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	**2**	**29**	**20**	**49**	**14**	**0**	**14**	**43**	**20**	**63**
VIII Fisheries										
Integrated fish	0	0	0	0	0	0	0	0	0	0

farming										
Total	0	0	0	0	0	0	0	0	0	0
IX Production of Inputs at site										
Bio-fertilizer production	1	8	17	25	0	2	2	8	19	27
Bio-fertilizer production	6	113	19	132	4	0	4	117	19	136
Mushroom Production	1	0	25	25	0	2	2	0	27	27
Vermi-compost production	1	39	13	52	5	0	5	44	13	57
Organic manures production	1	26	7	33	0	0	0	26	7	33
Total	**10**	**186**	**81**	**267**	**9**	**4**	**13**	**195**	**85**	**280**
X Capacity Building and Group Dynamics										
Group dynamics	1	54	0	54	4	0	4	58	0	58
Entrepreneurial development of farmers/youths	3	9	49	58	12	0	12	21	49	70
Total	**4**	**63**	**49**	**112**	**16**	**0**	**16**	**79**	**49**	**128**
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	**29**	**559**	**196**	**755**	**107**	**80**	**187**	**666**	**276**	**942**

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	0	0	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	1	26	13	39	5	0	5	31	13	44
Integrated Crop Management	3	20	52	72	2	6	8	22	58	80
Integrated Crop Management	6	235	77	312	20	8	28	255	85	340
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Others (Natural Resource Management)	2	33	14	47	4	19	23	37	33	70
Total	**12**	**314**	**156**	**470**	**31**	**33**	**64**	**345**	**189**	**534**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high value crops	1	10	1	11	0	0	0	10	1	11
Grading and standardization	2	32	2	34	7	0	7	39	2	41
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others Integrated crop management	1	9	5	14	0	0	0	9	5	14
Total	**4**	**51**	**8**	**59**	**7**	**0**	**7**	**58**	**8**	**66**
b) Fruits										
Layout and Management of Orchards	4	48	0	48	14	0	14	62	0	62
Cultivation of Fruit	3	81	1	82	34	0	34	115	1	116
Management of young plants/orchards	4	113	0	113	12	0	12	135	0	135
Others Integrated Nutrient management	3	32	0	32	34	0	34	66	0	66
Total (b)	**14**	**274**	**1**	**275**	**94**	**0**	**94**	**378**	**1**	**379**
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**00**	**0**	**0**	**0**	**0**
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										
Processing and value addition	3	00	144	144	00	33	33	00	177	177
Total (e)	**3**	**00**	**144**	**144**	**00**	**33**	**33**	**00**	**177**	**177**
f) Spices										
Production and Management technology	1	17	1	18	2	0	2	19	1	20
Total (f)	**1**	**17**	**1**	**18**	**2**	**0**	**2**	**19**	**1**	**20**
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
III. Soil Health and Fertility Management										
Soil fertility management	1	20	0	20	12	2	14	32	2	34
Production and use of organic inputs	2	12	59	71	4	2	6	16	61	77
Nutrient Use Efficiency	1	24	10	34	0	0	0	24	10	34
Balance use of fertilizers	1	38	32	70	6	2	8	44	34	78
Total	**5**	**94**	**101**	**195**	**22**	**6**	**28**	**116**	**107**	**223**
IV. Livestock Production and Management										
Dairy Management	0	0	0	0	0	0	0	0	0	0
Poultry Management	0	0	0	0	0	0	0	0	0	0
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	1	11	0	11	3	0	3	14	0	14
Disease Management	4	66	10	76	21	8	29	87	18	105
Feed & fodder technology	4	34	0	34	26	4	30	60	4	64
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Production & management technology	1	8	0	8	3	0	3	11	0	11
Sheep & Goat rearing	1	13	36	49	4	13	17	17	49	66
Total	**11**	**132**	**46**	**178**	**57**	**25**	**82**	**189**	**71**	**260**
V. Home Science/ Women empowerment										
Household food security by	1	0	22	22	0	5	5	0	27	27

kitchen gardening and nutrition gardening										
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Women Empowerment	1	0	18	18	0	2	2	0	20	20
Total	**2**	**0**	**40**	**40**	**0**	**7**	**7**	**0**	**47**	**47**
VI. Agril. Engineering										
Farm Machinery & its maintenance	5	64	0	64	35	11	46	99	11	110
Installation and maintenance of micro irrigation systems	2	40	44	84	6	0	6	46	44	90
Soil & water conservation	3	28	0	28	23	12	35	51	12	63
Small scale processing and value addition	16	128	85	213	24	497	521	152	582	734
Total	**26**	**260**	**129**	**389**	**88**	**520**	**608**	**348**	**649**	**997**
VII. Plant Protection										
Integrated Pest Management	24	500	68	568	28	23	51	528	91	619
Integrated Disease Management	2	51	10	61	2	0	2	53	10	63
Others – Safe use of pesticides	3	108	0	108	13	0	13	121	0	121
Total	**29**	**659**	**78**	**737**	**43**	**23**	**66**	**702**	**101**	**803**
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	1	10	20	30	5	0	5	15	20	35
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Total	**1**	**10**	**20**	**30**	**5**	**0**	**5**	**15**	**20**	**35**
X. Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
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	**108**	**1811**	**724**	**2535**	**349**	**647**	**996**	**2170**	**1371**	**3541**

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	1	13	0	13	2	0	2	15	0	15
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	1	26	13	39	5	0	5	31	13	44
Integrated Crop Management	15	460	148	608	85	77	162	545	225	770
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Others (Natural Resource Management)	2	33	14	47	4	19	23	37	33	70
Total	**19**	**532**	**175**	**707**	**96**	**96**	**192**	**628**	**271**	**899**
II. Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	3	60	3	63	0	0	0	60	3	63
Grading and standardization	2	32	2	34	7	0	7	39	2	41
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others Integrated crop management	1	9	5	14	0	0	0	9	5	14
Total (a)	**6**	**101**	**10**	**111**	**7**	**0**	**7**	**108**	**10**	**118**
b) Fruits										
Layout and Management of Orchards	4	48	0	48	14	0	14	62	0	62
Cultivation of Fruit	3	81	1	82	34	0	34	115	1	116
Management of young plants/orchards	4	113	0	113	12	0	12	135	0	135
Others Integrated Nutrient management	3	32	0	32	34	0	34	66	0	66
Total (b)	**14**	**274**	**1**	**275**	**94**	**0**	**94**	**378**	**1**	**379**
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										
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										
Processing and value addition	3	00	144	144	00	33	33	00	177	177
Total (e)	**3**	**00**	**144**	**144**	**00**	**33**	**33**	**00**	**177**	**177**
f) Spices										
Production and Management technology	1	17	1	18	2	0	2	19	1	20
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Total (f)	**1**	**17**	**1**	**18**	**2**	**0**	**2**	**19**	**1**	**20**
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)										
III Soil Health and Fertility Management										
Soil fertility management	1	20	0	20	12	2	14	32	2	34
Production and use of organic inputs	2	12	59	71	4	2	6	16	61	77
Nutrient Use Efficiency	1	24	10	34	0	0	0	24	10	34
Balance use of fertilizers	1	38	32	70	6	2	8	44	34	78
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
Total	**5**	**94**	**101**	**195**	**22**	**6**	**28**	**116**	**107**	**223**
IV Livestock Production and Management										
Dairy Management	0	0	0	0	0	0	0	0	0	0
Poultry Management	2	8	0	8	1	11	12	9	11	20
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	1	11	0	11	3	0	3	14	0	14
Disease Management	4	66	10	76	21	8	29	87	18	105
Feed & fodder technology	4	34	0	34	26	4	30	60	4	64
Production of quality animal products	0	0	0	0	0	0	0	0	0	0

Production & management technology	1	8	0	8	3	0	3	11	0	11
Sheep & Goat rearing	1	13	36	49	4	13	17	17	49	66
Total	**13**	**140**	**46**	**186**	**58**	**36**	**94**	**198**	**82**	**280**
V Home Science/ Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	22	22	0	5	5	0	27	27
Processing and cooking	1	0	25	25	0	2	2	0	27	27
Women and child care	0	0	0	0	0	0	0	0	0	0
Woment Empowerment	1	0	18	18	0	2	2	0	20	20
Total	**3**	**0**	**65**	**65**	**0**	**9**	**9**	**0**	**74**	**74**
VI Agril. Engineering										
Farm Machinery & its maintenance	6	69	0	69	37	11	48	106	11	117
Installation and maintenance of micro irrigation systems	2	40	44	84	6	0	6	46	44	90
Soil & water conservation	3	28	0	28	23	12	35	51	12	63
Small scale processing and value addition	16	128	85	213	24	497	521	152	582	734
Total	**27**	**265**	**129**	**394**	**90**	**520**	**610**	**355**	**649**	**1004**
VII Plant Protection										
Integrated Pest Management	26	529	88	617	42	23	65	571	111	682
Integrated Disease Management	2	51	10	61	2	0	2	53	10	63
Others – Safe use of pesticides	3	108	0	108	13	0	13	121	0	121
Total	**31**	**688**	**98**	**786**	**57**	**23**	**80**	**745**	**121**	**866**
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	7	121	36	157	4	2	6	125	38	163
Mushroom Production	1	0	25	25	0	2	2	0	27	27
Vermi-compost production	1	39	13	52	5	0	5	44	13	57
Organic manures production	2	36	27	63	5	0	5	41	27	68
Total	**11**	**196**	**101**	**297**	**14**	**4**	**18**	**210**	**105**	**315**

X Capacity Building and Group Dynamics										
Group dynamics	1	54	0	54	4	0	4	58	0	58
Entrepreneurial development of farmers/youths	3	9	49	58	12	0	12	21	49	70
Total	**4**	**63**	**49**	**112**	**16**	**0**	**16**	**79**	**49**	**128**
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	**137**	**2370**	**920**	**3290**	**456**	**727**	**1183**	**2836**	**1647**	**4483**

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	0	0	0	0	0	0	0	0	0	0
Dairy Management	2	71	0	71	9	0	9	80	0	80
Poultry Management	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	6	138	23	161	2	0	2	140	23	163
Small scale processing	6	45	71	116	23	0	23	68	71	139
Vermi-culture	1	16	5	21	0	0	0	16	5	21
Biopestcide production	0	0	0	0	0	0	0	0	0	0
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	**15**	**270**	**99**	**369**	**34**	**0**	**34**	**304**	**99**	**403**

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	0	0	0	0	0	0	0	0	0	0
Dairy management	0	0	0	0	0	0	0	0	0	0

Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Repair & maintenance of farm machinery and implements	1	30	0	30	2	0	02	32	0	32
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Feed & Fodder Management	1	11	0	11	2	0	2	13	0	13
Low cost pest management / IPM	0	0	0	0	0	0	0	0	0	0
TOTAL	**2**	**41**	**0**	**41**	**4**	**0**	**4**	**45**	**0**	**45**

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	0	0	0	0	0	0	0	0	0	0
Dairy Management	2	71	0	71	9	0	9	80	0	80
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Feed & Fodder Management	1	11	0	11	2	0	2	13	0	13
Poultry production	0	0	0	0	0	0	0	0	0	0
Poultry Management	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	6	138	23	161	2	0	2	140	23	163
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	1	16	5	21	0	0	0	16	5	21
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	1	30	0	30	2	0	02	32	0	32
Small scale processing	6	45	71	116	23	0	23	68	71	139
Biopestcide production	0	0	0	0	0	0	0	0	0	0
Low cost pest management / IPM	0	0	0	0	0	0	0	0	0	0
TOTAL	**17**	**311**	**99**	**410**	**38**	**0**	**38**	**349**	**99**	**448**

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	16	7	23	2	3	5	18	10	28
Integrated pest managemrnt	3	180	22	202	2	1	03	182	23	205
soil and water testing	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	1	4	5	9	2	0	2	6	5	11
Capacity building for ICT application	1	13	9	22	6	0	6	19	9	28
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Animal disease management	1	32	0	32	6	0	6	38	0	38
TOTAL	**7**	**245**	**43**	**288**	**18**	**4**	**22**	**263**	**47**	**310**

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
Integrated pest managemrnt	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient management	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**

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	1	16	7	23	2	3	5	18	10	28
Integrated pest managemrnt	3	180	22	202	2	1	03	182	23	205
soil and water testing	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	1	4	5	9	2	0	2	6	5	11
Capacity building for ICT application	1	13	9	22	6	0	6	19	9	28
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Animal disease management	1	32	0	32	6	0	6	38	0	38
TOTAL	**7**	**245**	**43**	**288**	**18**	**4**	**22**	**263**	**47**	**310**

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	6	45	71	116	23	00	23	68	71	139
Farm machinery										
Training program under PCRA	1	30	5	35	6	0	6	36	5	41
Farm machinery, tools and implements	0	0	0	0	0	0	0	0	0	0
Total	1	30	5	35	6	0	6	36	5	41
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										
Entrepreneurship development	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	**7**	**75**	**76**	**151**	**29**	**0**	**29**	**104**	**76**	**180**

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	0	0	0	0	0	0	0	0	0	0
Poultry farming	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Income generation activities										
Vermicomposting	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

3.5 Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)	180	6200	65	6265
Diagnostic visits	10	70	10	80
Field Day	5	285	8	293
Group discussions	2	140	0	140
KisanGhosthi	15	440	6	446
Film Show	5	60	5	65
Self -help groups	10	100	5	105
Kisan Mela	2	760	10	770
Exhibition	3	175	0	175
Scientists' visit to farmers field	50	647	16	663
Plant/animal health camps	19	995	25	1020
Farmers' seminar/workshop	2	37	0	37
Method Demonstrations	14	421	5	426
Exposure visits	1	13	0	13
Jal Shakti abhiyan	10	293	4	297
Kisan Bhagidari Prathamikta Hamari	1	338	1	339
Swachhata Pakhwada, Maah	23	411	6	417
Garib Kalyan Sammelan	1	822	4	826
PM Kisan Sanman Nidhi	2	483	2	485
World Women Day	1	117	1	118
World Veterinary Day	1	67	2	69
Animal Husbandry Day	1	38	1	39
International Yoga Day	1	180	0	180
ICAR Foundation Day	1	119	0	119
Krishi Din	1	195	1	196
Mahila Kisan Diwas	1	49	0	49
World Food Day	1	32	0	32
World Soil Day	1	71	1	72
Kisan Diwas	1	46	0	46
Ranbhaji Mahotsav	2	175	2	177
Parthenium Week	1	23	0	23
Celebration of Birth Anniversary of Mahatma Gandhi	1	25	0	25
Swachhata Maah and Pakhwada	23	398	0	398
Poshan Abhiyan & Tree Plantation	1	108	0	108
Total	**393**	**14333**	**180**	**14513**

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

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	--
Extension Literature	03
News paper coverage	116
Popular articles	01
Radio Talks	2
TV Talks	0
Animal health amps (Number of animals treated)	19 (3985animals)
News Letter	1

3.6 Online activities during year 2022

S. No.	Activity Type	Mode of implementation (Video conferencing / Audio Conferencing / Facebook Live / YouTube Live/ Zoom/ Google meet/ Webexetc)	Title of Program	No. of Programmes	No. of Participants/ Views
A	**Farmers training**				
1	Online Training Programme	Zoom meet	Training programme on watermelon/Muskmelon cultivation	1	29
2		Facebook Live / YouTube	Online training programme on production of organic inputs	9	232
	Total			**10**	**261**
B	**Farmers scientist's interaction programme**				
		Google meet	Online review meetng under CROPSAP	06	06
	Total			06	06
C	**Farmers seminars**				
	Total	--			
D	**Expert lectures**				
	Total	**--**			
E	**Any other Extension Functionary Trainings**	**--**			
	Grand Total (A-E)			**16**	**267**

3.7 PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Oilseeds	Soybean	Phule Sangum Phule Kimaya	--	12.50	137500	50
Pulses	Chick pea	Phule Vkarant	--	12.0	84000	45
Commercial crops	Custard Apple	Balanagar	--	0.10	5000	2
Fiber crops	Sunhemp	Local	--	0.40	3200	2
Total				**25.00**	**229700**	**99**

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
Vegetable seedlings	Chilli		TEJA-4	11000	11000	2
	Drumstick	Bhagya	--	42	420	2
Fruits	Orange	Nagpuri Santra	--	1262	63100	17
	Custardapple	Balanagar	--	1011	30330	106
	Guava	L49	--	1	60	1
	Lime	Kagzi Lime	--	1962	58860	100
Spices	Turmeric	IISR Pragati	--	175	35000	14
	Garlic	AKG-7, G41	--	50	10000	7
Total				**15503**	**208770**	**249**

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-	Kaveri and	Eggs and meat	Nos.	400	60850	65

	Nirbhik	CARI-Nirbhik					
Piggery							
Piglet	--	--	--	--	--	--	--
Fisheries							
Indian carp	--	--	--	--	--	--	--
Total					**400**	**60850**	**65**

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

A. KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.) — 2022 yearly 300 copies

B. Literature developed/published

Item	Title	Authors name	Number
Research papers / Abstract	Prioritization of erosion prone areas based on a sediment yield index for conservation treatment : A case study of upper Tapi River Basin	V.G. Jadhao	01
	Soil erosion modelling using remote sensing and GIS	V.G. Jadhao	01
	Modelling of rain erosivity employing simulated rainfall and laser precipitation monitor	V.G. Jadhao	01
	Impact assessment of FLD on the yield of greengram	S.M.Umale S.A.Borde	01
	Performance of Groundnut under BBF method in Buldana district of Maharashtra	S.A.Borde S.M.Umale	01
	Effect of BBF Method for irrigated Chickpea in Buldana District of Maharashtra	N.P.Talokar S.A.Borde	01
	Technological & Yield Gap On Pigeon Pea in Buldana District Of Maharashtra.	V.G.Jadhao S.A.Borde	01
	Influence of BBF Seed Drill on Yield of Soybean in Buldana of Maharashtra	S.A.Borde	01
	Impact of FLD on Productivity of Black Gram in Buldana District of Maharashtra	S.A.Borde	01
	Enhancing the Productivity & Production of Green gram through Cluster FLD in	S.A.Borde	01

	Buldana District.		
Technical reports	--		
News letters	KVK News Letter	V.G. Jadhao	300
Technical bulletins	--		
Popular articles	Care and management during summer season	Dr.V.S.Janotkar	--
Extension literature	Need of Natural Farming	S.M.Umale,A.T.Gabhane,V.G.Jadhao	4000
	Mushroom production	S.A.Borde	100
	Fruit processing	S.A.Borde	100
	Bio fertilizer & bio pesticides	S.A.Borde	100

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. N.	Type of social media platform	Title of social media	Number of Followers/ Subscribers
1	YouTube Channel	KVK Buldana-I	850
2	Facebook page	www.facebook.com/KVKBuldana1	810
3	WhatsApp groups	KVK Contact Farmer-I & II, Dairy Farmers, KVK-SHG, Custard apple grower, Buldana Citrus grower, Guava grower, Banana grower, Nursery worker, Goatary Farmer, Poultry Farmer, Dal Mill, KVK-IM (6 groups), DAESI (4 groups), KVK-INM,	2900
4	Twitter Account	KVK Buldana-I @BuldanaI	23

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

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 II

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)
2020	176	1956	344256	1.5	26000	39000	383256
2021	196	2045	400820	2	26520	53040	453860
2022	156	2164	337584	1.2	27463	32955.60	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

Success Story III

Name of Farmer: Gajanan Rambhau Kothalkar

Village: Jalgaon Jamod
Taluka: Jalgaon Jamod
District: Buldhana
Education: 12th

Introduction

Gajanan Rambhau Kothalkar is 58 year age farmer having land 3 ha, from Jalgaon Jamod District Buldhana doing organic farming from last 5 years now a day he shifted towards Natural farming

Training and guidance of KVK

KVK Buldhana-I given a Training on Organic Farming under Panjabrao Jaivik Kheti Mission now a days 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 Jawor, Pigeonpea, Wheat and Turmeric 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

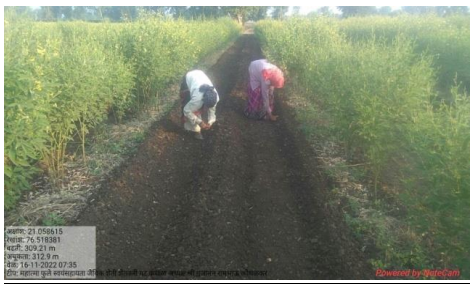
Parameters	Natural Farming (Area in ha)				Conventional Farming (Area in ha)			
Name of Crop	Jawor (0.40)	Pigeonpea (1.00)	Wheat (0.40)	Turmeric (0.40)	Jawor (0.40)	Pigeonpea (1.00)	Wheat (0.40)	Turmeric (0.40)
Cost of cultivation (Rs)	10000	19500	9000	20000	14000	30000	15000	32000
Production (q)	5	10	9	110	10	11	12	140
Gross return (Rs)	25000	90000	45000	88000	30000	88000	24000	84000
Net return (Rs)	15000	70500	38000	68000	16000	58000	9000	52000
BC ratio	2.5	4.61	5	4.4	1:1.1	2.93	1:1.1	2.62

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.Gajanan Rambhau Kothalkar Farm



Success Story IV

Name of Farmer: Sarangdhar Motiram Gomase
Village: Jalgaon Jamod
Taluka: Jalgaon Jamod
District: Buldhana
Education: M.Sc, BA BEd

Introduction

Sarangdhar Motiram Gomase is 62 year age, having land 1.40ha , from Jalgaon jamod District Buldhana. Even when serving as a Teacher In Z.P.Buldhana parallelly pursuing his passionate Farming,after retirement at the age of 58 he became a full time Farmer and expanded his activities .In 2017 he joined to KVK Buldhana-I, he was attending many training Programmes organized by KVK espcialy on organic farming , now a day he shifted towards Natural farming.

Training and guidance of KVK

KVK Buldhana-I given a Training on Organic Farming under Panjabrao Jaivik Kheti Mission now a days 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 since 2017.
- Cultivated Greengram, Blackgram and turmeric during kharif season for value added
  - Products by organic farming.
- Prepared and used beejamrit for seed treatment and jivamrit for nutrition management.
- Prepared and used dusparni ark, brahmastra, neemastra and agniastra for controlling pests.
- Used bio fertilizers like rhizobium, phosphate solubilising micro-organism (psb),
- Potassium solubilizing bacteria (ksb), zinc solubilizing biofertiliser (zsb), vermi compost and vermiwash through drip irrigation.
- Reared One desi cows
- Processing and supply of organic inputs prepared/ value added products as a brand name “Sanjivani” like, moong dal, urid dal and turmeric powder in satisfactory cost.
- Used ICT mechanism (WhatsApp and face book) for Marketing of vegetable and other value added product.
- Participated in exhibitions / workshops and forums regularly.
- Provided regular trainings to other farmers

Comparison between Natural Farming and Conventional Farming

Parameters	Natural Farming (Area in ha)				Conventional Farming (Area in ha)			
Name of Crop	Vegetable (0.20)	Pigeonpea (0.20)	Wheat (0.40)	Turmeric (0.60)	Vegetable (0.20)	Pigeon pea (0.20)	Wheat (0.40)	Turmeric (0.60)
Cost of cultivation (Rs)	7000	10000	10000	80000	10000	10000	12000	90000
Production (q)	7	2.80 Dal	12 Cleaning & packing	25 turmeric powder	8	2.8 Dal	15 Cleaning & packing	25 turmeric powder
Gross return (₹)	35000	42000	60000	500000	24000	30000	37500	300000
Net return (₹)	28000	30000	50000	18000	10000	15000	17000	210000
BC ratio	5	4.2	6	6.2	2.4	3	3.1	3.33

Benefits and achievements

- Reduced the dependence on inputs from external sources.
- Harvested chemical–free produce.
- Obtained good yield and Economic return due to value addition and Branding
- Ensured efficient and economical use of natural resources.
- Guided about natural farming to other farmers in the district.
- Honoured with the best Farmer Award by the Agriculture Dept.

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.


देशोन्नती

सारंगधर गोमाशे गुरुजींच्या जैविक शेतीसमुहाला प्रथम पुरस्कार

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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 – **2022**
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)

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

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
Dr. P.D.K.V.,Akola	Technical guidance regarding training, demonstrations & other extension activities etc.
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	2022	ATMA	751900/-
Diploma in agriculture extension for input dealers (DAESI)	2022	MANAGE, Hyderabad and ATMA Buldana	1480000/-
CAT Programme	2022	NABARD	275100/-
Processing of Agriculture Produce	2022	Adivasi Vikas Prakalp, Akola	510000/-
Out Scaling of Natural Farming Through KVK	Dec 2022	ICAR	432000/-
CCIM Course for Pestcide Dealers under NIPHM , Hyderabad	2022	Self Finance	360000/-
Capacity building Training programme	2022	MoFDAH, GOI	200000/-

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	04	--	--
02	Research projects	--	--	--	--
03	Training programmes	Skill Training programme	14	21	875
04	Demonstrations	Cotton, Soybean & Mushroom	20	25	115
05	Extension Programmes	Exposure visit	05	00	50
06	Publications	--	-	-	-

07	Extension Literature	-	-	-	-
08	Other Activities	-	-	-	-

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	CFLD on oilseeds	Trainings & demonstrations	390000/-	389100/-	

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

Demonstrations

Chickpea - Variety RVG202 and Phule Vikram Gives More Yield than JAKI9218 and Resistant to wilt

Summer Greengram - Variety PDM139 gives more yield than Local Variety and Ressistant to Yellow vain Mosaic

Linseed - PKV NL260 Gives more Yield than Local variety

Variety KDG160 gives more yield of Pods and Straw and Resistant to Tikka Diseases

Variety Phule Sangam Gives More Yield Than JS335

Pigeon pea - Variety BDN716 is Resistant to wilt and and gives more Yield

- **Assessment**

Wheat - Post emergence weedicide application (Clodinafop Propargyl + Metasulfuran Methyal @ 0.06+ 0.004 kg ai /ha) at 35DAS controls both type of weed narrow and broad leaves weed

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

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.

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 -** ETL based spraying of recommended insect ices gives effective control of pink bollworm and reduce the cost of plant protection
- **Soybean -** Seed treatment with Thiamethoxam 30 FS @ 10 ml/kg seed is effective for management of stem fly and girdle beetle
- **Blackgram -** Spraying of Clorantrniliprole is effective for management for pod borer in black gram
- **Pigeon pea -** Seed treatment of combined fungicide followed by Trichoderma is effective for management of wilt.

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.

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**.**
- In Cotton variety having Higher Ginning Percentage and resistant to Pink boll worm.
- Sorghum Variety suitable for Summer season.
- 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

- Availabiliaty and quality of bio pesticides is major isssue
- To develop wilt resistant varieties in pigean pea.

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- 2022

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	--		
Supply of Literature (No.)	--		
Total number of farmers visited technology week	--		
Number of organizations participated	--		

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

-- Drought condition was not arised duing 2022 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	4500	50	65000/- per ha	72000/- per ha
Use of pheromone traps for monitoring of pink bollworm in cotton	1150	30.43	--	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	875	54.28	68500/- per ha	81500/- per ha
Use of Trichoderma for management of wilt in pigeaon pea and Chickpea	850	60.0	--	15-20 % increased in yield
Use of yellow sticy traps for management of sucking pest in different crops	755	44.37		Saving in cost of plant protection
Use of bordo mixture in fruit crop	1610	76.40	--	--
Crop specific micro-nutrient in vegetable	340	82.35	--	15% increase in yield per ha
New improved variety of Ajwain AA01-19	175	50.85%	82440/-	105000/-

Use of BBF Planter	3506	16.85	16420/-	22132/-
Use of Cotton slasher	1863	32.66	34653/-	37850/-
Use of PDKV Dal mill	260	02%	--	125630/-
In situe soil and water conservation	352	07%	18960/-	24650/-
Installation if micro irrigation unit	740	36%	24630/-	46120/-
Use of Garlic planter	40	60	--	Saving 6500/-
Use of Subsoiler	163	23%	34650/-	36590/-
Use of spiral separator	203	24 %	--	300/- per qt.
Use of PDKV drip coiler	30	9%	--	Labour cost saving Rs 300/ha
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	1410	83.68%	--	Early detection of heat reduces dry period
Azolla feeding	310	62.90%	--	Improve wt 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 1645 ha in 2019-20 and also the productivity has been increased from 2.5 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	97
FLD's	560 ha
FFS	08
Krishi Melawa	14
Field Day	18
T.V. / Radio talk	14
Booklet and folder	14
Popular articles published	21
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	46
Training programmes Extension workers	06
Assessment	60 ha
FLD's	380 ha
FFS	04
Krishi Melawa	08
Field Day	12
Research papers	05
Booklet and folder	05
Popular articles published	09
Villages covered	123
Custom Hiring	560 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 orgaic 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	32
Assesssment	18 ha
FLD's	95 ha
Field Day	03
Booklet and folder	02
Popular articles published	05
Villages covered	92
Custom Hiring	312 ha

v. PKV Mini dal mill for entrepreneurship development

Background

Buldana district having most of area under pulses crop production.The cropping patterncomprises 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	08
Trainings of Beneficiaries (Dal Mill Beneficiary)	160
Popular article	12
Booklet	02
Visitors Demo. Unit	360
Dal Mill Inauguration	06
KVK connected dal mill in operation in the district	26

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	18
2	Goat farming	14
3	Dairy	05
4	Protective cultivation	16
5	Sericulture	140
6	Dal Milling	08
7	Tailoring	24

8	Mushroom	06
9	Fruit processing small scale (SHG)	08
10	Value addition in Safed Musli & Minor Millet (SHG)	09
	Total	**248**

vii. Establishment of Self Help Groups

KVK has established 115 SHG under SHG establishment and linkages programme of NABARD. KVK is conducting regular trainings & demonstrations to SHG for developing income-generating units and some of SHG groups have started their Safed Musli processing, Aonla processing, Pickles, Contrat Farming, Poultry, Dairy and Vermi-compost units successfully with the technical support of KVK. For strengthening SHG, KVK has conducted skill development and foundation training programme in collaboration with NABARD to make aware about the entrepreneurship development related to agriculture business. At present following SHG's started their own entrepreneurship,

Name of SHG	Entrepreneurship	Income / month (Rs)
Durgamata Mahila Bachat gat, Bhendwal,	Various Pickles	20000/-
Renuka Mahila Bachat Gat,Jalgaon Jamod	Minor millet processing	21000/-
Shetkari Mahila Bachat Gat Yeulkhed	Organic Pulses products	15000/-
Savitribai Fule Mahila Bachat Sungaon	Aonla Processing	20000/-
Sharda Mahila Bachat Gat Jalgaon Jamod	Natural Holi Colors	12000/-
Ramai Mahila Bachat Gat Sungaon, Tq; Jalgaon	Processing of Safed Musli & Turmeric	22000/-
Bhimai Mahila Bachat Gat Sungaon, Tq; Jalgaon	Processing of Safed Musli & Turmeric	21000/-
Swami Samarth Mahila Bachat Gat Sungaon, Tq: Jalgaon	Processing of Safed Musli & Aonla	25000/-
Ramai Mahila Bachat Gat, Akola Kh.	Safed Musli Processing	15000/-
Mahalaxmi SHG, Nirod Tq; Jalgaon Dist: Buldana	Milk Processing, Nursery & Goat	16000/-

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 2022	--	--	--
Feb 2022	01	6556	--
March 2022	03	94939	--
April 2022	03	10742	--
May 2022	02	10746	--
Jun 2022	04	10743	--
Jul 2022	02	6560	--
Aug 2022	03	10743	--
Sept 2022	04	5171	--
Oct 2022	01	1389	--
Nov. 2022	02	6560	--
Dec. 2022	01	8433	--
Total	**26**	**172582**	--

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
Buldana-I	Text only	15	02	01	--	05	03	**26**
	Voice only	--	--	--	--	--	--	--
	Total Messages	15	02	01	--	05	03	**26**
	Total farmers Benefitted	**10743**	**10746**	**7081**	--	**94939**	**1389**	**172582**

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	2005	800 sqft	Kaveri and CARI-Nirbhik	Eggs and meat	400 Nos	60850/-	80820/-	Yet to be sold
2	Azolla	2020	400 sqft	Azolla pinnata	Culture	30 kg	1500/-	4500/-	
2	Vermi-compost Unit	2009-10	880 sqft	Isenia Fotida	Vermi-compost	60 qt	6000/-	60000/-	Supplied to 10 farmers & KVK farm
3	Dalmill	2013	--	--	Dall	250 kg	700/-	18000/-	
4	Ideal Nursery	2009	2000 sqft	Custard Apple, Citrus, Sweet Orange	Seedling	15278	32500/-	163770/-	228 farmers
5	Custom hiring	2012	40 ha	--	--	--	--	100000/-	

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. qt	Cost of inputs	Gross income	
Cereals									
Wheat	17.11.2021	15.03.22	0.40	PDKV sardar	Seed	10	5500	20000	
Wheat	17.11.2021	15.03.22	0.40	ARya	Grain	15.25	7500	27260	
Pulses									
Chick pea	15.10.2021	15.02.22	0.60	Jaki -9218	Grain	12.98	8500	64900	
Redgram	22.6.2022	31.12.22	1.0	BDN-716	Grain	17.25	7500	117731	
Redgram	22.6.2022	31.12.22	1.0	BDN-716	Seed	5.0	4500	45000	Balance
Oilseeds									
Soybean	22.06.2022	15.10.22	0.80	Phule Sangum and phule kimaya	Seed	12.50	7500	137500	
Soybean	20.6.2022	16.10.22	4.0	JS-9305	Grain	52.84	45000	250990	
Fibers									
Cotton	05.06.2022	31.12.22	3.0	RCH-659 Ajit-155	Seed Cotton	31.55	85000	234370	
Sub-total						**157.37**	**171000**	**897751**	
Spices & Plantation crops									
Turmeric	June 22	March23	0.07	IISR Pragati	Rizhoms	175	4500/-	35000/-	
Garlic	Dec 22	March23		G41,AKG7	Bulb	0.50	2500/-	10000/-	
Fibers									
Sunhemp	June 22	Feb 23	0.10		Seed	0.40	2500	3200/-	
Floriculture									
Fruits									
Custard apple	2006	Nov 2022	1.50	Balanagar	Fruits	431.6	5600/-	21580/-	
Guava	2018	Dec 2022	0.40	L-49	Fruits	526.66	3500/-	7900/-	
Aonla	2006	Nov 2022	0.60	Krishna	Fruits	599.12	3950/-	14978/-	
Sweet ornage	2006	Sept 2022	0.40	Nucellar, Katol gold	fruits	1164	9750/-	23280/-	
Sub-total							**32300**	**115938**	
Grand total							**203300**	**1013689**	

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 2022	20	60	
February 2022	40	160	
March 2022	40	200	
April 2022	12	35	
May 2022	05	10	
June 2022	25	50	
July 2022	05	10	
August 2022	50	100	
September 2022	08	16	
October 2022	05	10	
November 2022	4	8	
December 2022	5	10	

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 plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
--									

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

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
0.01	Vegetable crops Fruit crops	8 Brinjal, Tomato, Cucumber, Spong guard, ridge guard, spinach, coriander, radish, Chilli, carrot, custard apple, papaya	500

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	40
10	Fruit Crop	Custard apple, Guava, Lemon	50

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	--	--							

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 2022-23 (Rs. in lakh) (Till Dec. 2022)

<table>
<tr><th>S.N.</th><th>Particulars</th><th>Sanctioned</th><th>Released</th><th>Expenditure</th></tr>
<tr><td colspan="5">A. Recurring Contingencies</td></tr>
<tr><td>1</td><td>Pay & Allowances</td><td>188.00</td><td>188.00</td><td>187.496</td></tr>
<tr><td>2</td><td>Traveling allowances</td><td>2.26</td><td>2.26</td><td>2.26</td></tr>
<tr><td>3</td><td>Contingencies</td><td colspan="3"></td></tr>
<tr><td>A</td><td>Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)</td><td rowspan="2">4.830</td><td rowspan="11">11.13</td><td rowspan="11">11.132</td></tr>
<tr><td>B</td><td>POL, repair of vehicles, tractor and equipments</td></tr>
<tr><td>C</td><td>Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)</td><td rowspan="9">6.30</td></tr>
<tr><td>D</td><td>Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)</td></tr>
<tr><td>E</td><td>Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)</td></tr>
<tr><td>F</td><td>On farm testing (on need based, location specific and newly generated information in the major production systems of the area)</td></tr>
<tr><td>G</td><td>Training of extension functionaries</td></tr>
<tr><td>H</td><td>Maintenance of buildings</td></tr>
<tr><td>I</td><td>Estb. of Soil, Plant & Water Testing Laboratory</td></tr>
<tr><td>J</td><td>Library</td></tr>
<tr><td colspan="2">TOTAL (A)</td><td>201.39</td><td>201.39</td><td>200.888</td></tr>
<tr><td colspan="5">B. Non-Recurring Contingencies</td></tr>
<tr><td>1</td><td>Works</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>2</td><td>Equipments including SWTL & Furniture</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>3</td><td>Vehicle (Four wheeler/Two wheeler, specify)</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>4</td><td>Library (Purchase of assets like books& journals)</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td colspan="2">TOTAL (B)</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td colspan="2">C. REVOLVING FUND</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td colspan="2">GRAND TOTAL (A+B+C)</td><td>201.39</td><td>201.39</td><td>200.888</td></tr>
</table>

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	26.76	26.82	100.57

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
S.A. Borde	SMS Extn	Enterpreneuirship development prog	KVK, Baramati	Offline	15-22 Feb 2022
V.G. Jadhao	Sr Scientist & Head	National Facilitator Development prog	MANAGE Hyderabad	Online	21-26 Feb 2022
Anil T. Gabhane	SMS PP	Online training on pest survillence	Organised by NIPHM. Hyderabad	Online	23-27 May.2022
Anil T. Gabhane	SMS PP	Production protocol of Bofertlizer production	NIPHM . Hyderaad	Online	13-17 June 2022
Sanjay M.Umale	SMS Agro	Production protocol of Bofertlizer production	NIPHM . Hyderaad	Online	13-17 June 2022
Sanjay M.Umale	SMS Agro	NABL Accredition of soil testing lab	Dr. PDKV Akola	Offline	16.09.2022
Shashank P Datey	SMS Horti	Processing of Custard Apple & Guava	NIPHT, Pune	Offline	19-23 Dec.2022

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

Name of the village	Total No. of families surveyed	Key interventions implemented	No. of farmers covered in each intervention	Change in income (Rs/unit, 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	137	2836	1647	4483
Rural youths	17	349	99	448
Extension functionaries	07	263	47	310
Sponsored Training	07	104	76	180
Vocational / Skill Training	0	0	0	0
Total	**168**	**3552**	**1869**	**5421**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	150	60.0	
Pulses	200	80.0	
Cereals	--	--	
Horticultural crops	35	11.2	
Commercial crop	25	10.0	
Total	**410**	**161.2**	
Livestock & Fisheries	20	--	20 units
Other enterprises	--	--	
Implements	90	36.0	
Total	**110**	**36.0**	
Grand Total	**520**	**197.2**	

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	08	08	68
Livestock	04	04	40
Various enterprises	02	02	30
Total	**14**	**14**	**138**
Technology Refined			
Crops	--	--	--
Livestock	--	--	--
Various enterprises	--	--	--
Total	--	--	--
Grand Total	**14**	**14**	**138**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension & other extension activities	393	14516
Total	**393**	**14516**

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	15	02	01	--	05	03	**26**
	Voice only	--	--	--	--	--	--	--
	Voice & Text	--	--	--	--	--	--	--
	Total Messages	15	02	01	--	05	03	**26**
	Total farmers Benefitted	**10743**	**10746**	**7081**	**--**	**94939**	**1389**	**172582**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	25 qt	229700.00
Planting material (No.)	15503 nos	208770.00
Bio-Products (kg)	60 qt	60000.00
Livestock Production (No.)	400 nos	60850.00
Fodder crop sets	5500 sets	5500.00
Azolla	35 kg	3500.00

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	2804	575800
Water	1763	176300
Total -	**4567**	**752100**

8. HRD and Publications

Sr. No.	Category	Number
1	Abstract	
2	Workshops	03
3	Conferences	--
4	Meetings	12
5	Trainings for KVK officials	07
6	Visits of KVK officials	50
7	Book published	--
8	Training Manual	--
9	Book chapters	--
10	Booklet	04
11	Leaflets/ Folder/ Pamphlet	--
12	Research papers	10
13	Technical Bulletin	01
14	Popular article	01
15	Lead papers	--
16	Seminar papers	--
17	Extension folder	--
18	Award & recognition (SHG)	04