Dr.Panjabrao Deshmukh Krishi Vidyapeeth, Akola

Krishi Vigyan Kendra, Buldhana

Annual Progress Report 2021-22
Proposed Action Plan 2022-23

Submitted to

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Submitted by

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C O N T E N T

DISTRICT PROFILE

INTRODUCTION

The Buldana district of Western Vidarbha Zone of Maharashtra State is located between 19^0, 51" to $21^{0,}$ 17" of North Latitude while 75^0, 57" to 76^0, 49" of Eastern Longitude and situated 305 m above mean sea level. It is surrounded by Akola and Washim districts in the East, Jalgaon districts in the West, Parbhani and Jalna districts in the South and Nimad district of Madhya Pradesh in the North.

Cotton and Soybean are the major cash crops grown in all the 13 Tehsils of the district. The district has only 9% irrigation potential and hence cotton is predominantly grown under rainfed conditions. The district comes under assured rainfall area of VIIth Agro climatic Zone with average annual rainfall of 712.9 mm (52 rainy days) mostly received during June to September months from the south west monsoon rains.

The soils of the district are 37% light (7.5 – 25 cm i.e. Entisol), 36% medium (26-50 cm i.e. Inceptisol) and 27% black cotton soils (51 – 100 cm i.e. Vertisol).

GENERAL CENSUS

LOCATION		
1. North Latitude (degrees)	:	19.51 to 21.17
2. East Longitude (degrees)	:	75.57 to 76.59
AREA		
Total Geographical area (ha)	:	967099
ADMINISTRATION		
Sub - Divisional Offices	:	05
Tahasils	:	13
Panchayat Samiti	:	13
GRAM PANCHAYAT		
Total	:	867
VILLAGES		
Inhabited	:	1299
Uninhabited	:	128
Total	:	1427
TEMPERATURE		
Minimum Temperature (^{0}C)	:	8.3
Maximum Temperature (^{0}C)	:	41.6
Average Rainfall (mm)	:	712.9
POPULATION		
Rural population	:	17.59 lakh
Urban population	:	04. 73 lakh

Total population	:	22.32 lakh
S.C. population	:	02.41 lakh
S.T. population	:	01.15 lakh
Male	:	11.47 lakh
Female	:	10.85 lakh
Sex ratio	:	945
Density of population	:	230
AGRICULTURAL AND ALLIED CENSUS		
Geographical Area	:	967099 ha
Area Under Forest	:	76600 ha
Barren and uncultivable land	:	23487 ha
Land put to non-agricultural uses	:	62400 ha
Cultivatable waste	:	16400 ha
Permanent pastures and other grazing	:	27200 ha
Land under Miscellaneous tree crop	:	4700 ha
Current follows	:	33100 ha
Other fallows	:	13400 ha
Net are sown	:	753600 ha
Gross cropped area	:	735100
IRRIGATION		
No of irrigated Wells	:	48585
Area Irrigated by different sources(ha)	:	
Surface Irrigation(ha)		9538
Wells & other Irrigation(ha)	:	58588
Total	:	**68126**
Average rainfall (mm)	:	853 mm (52 rainy days)
Rainfall during 2021	:	1141.4 mm (56 rainy days)

OTHER INFORMATION

Land Holding Pattern

There are 2.81 lakh landholders covering an area of 7.21 lakh hectares of land in district. The Percentage of Landholders holding land below 2 hectares is 56% while 4% are big landholders holding land above 10 hectors. The classification of landholders with area and percentage holding is given in the following table

Sr. No.	Descriptions	Size of holding (ha)	No. of holders	%	Area (ha)	%
1	Marginal	1	64013	22.73	40908	5.67
2	Small	1-2	95309	33.86	138574	19.23
3	Semi medium	2-5	88924	31.58	272440	37.81
4	Medium	5-10	27180	9.66	184064	25.54
5	Large	10 above	6108	2.17	84747	11.75
	Total		**281534**	**100**	**720733**	**100**

3. AGRO-CLIMATIC ZONES

The district Buldana falls under Agro-climatic Zone No. 7 i.e. assured Rainfall Zone. The Average rainfall received in this Zone usually exceeds 700 m. m. The climate is hot and dry. More than 75% rainfall in this zone is received in Kharif season, hence Kharif cropping system Predominates in the zone. In general, all types of soils are observed in this zone. Preferably, medium and heavy in texture, fairly high in clay content, alkaline in reaction, high lime reserve with high base saturation of the exchange complex. The soils are severely eroded & shallow. They are uneven in depth and are uncertain by stony substrata. They are intercepted by gullies having rapid run off resulting in severe erosion & prone to drought.

4. Agro Ecological Situations (AES) Of Buldana District

AES	Characteristics	Blocks Covered
I	Medium to heavy soils, rainfed area,Hilly topography	Sangrampur,Jalgaon Jamod
II	Plain topography with saline soils, well irrigation	Malkapur,Nandura,Shegaon ,Khamgaon
III	Medium to shallow soils, Hilly topography, Surrounded by forest.	Motala ,Buldana,Chikhali
IV	Medium to shallow soils,assured rainfall, irrigation through wells, Horticulture crop pocket	Mehkar,Part of Khamgaon and Chikhali
V	Hilly and undulating topography,Medium to shallow soils , rainfed area,	Lonar,Deulgaon Raja,Sindkhed Raja

5. Major And Micro-Farming Systems

Soil Type in Buldana District

Heavy Black cotton soil	Medium Black cotton soil	Light soil
27	**36**	**37**

Major Farming Situation:

Sr. No.	Farming Situation	Cropping System exists
1	Medium to heavy soils, rainfed area,Hilly topography	Cotton- Summer Gr.nut Citrus – vegetable (Intercrop)
2	Plain topography with saline soils, well irrigation	Cotton- Summer Gr.nut Soybean – Chickpea Soybean – Wheat
3	Medium to shallow soils, Hilly topography, Surrounded by forest.	Soybean –Chickpea Cotton – fallow Soybean – Wheat
4	Medium to shallow soils,assured rainfall, irrigation through wells, Horticulture crop pocket	Cotton – Fallow Soybean- Chickpea Soybean – Wheat
5	Hilly and undulating topography,Medium to shallow soils , rainfed area,	Cotton – fallow Soybean – Chickpea Soybean – Wheat Greengram-Rabi sorghum

6. Major Production Systems

Recommended Cropping Pattern for Western Vidarbha Zone in irrigated situation

Sr.No.	Kharif	Rabi	Summer
1	Cotton	-	Summer Ground nut
2	Chilli (Green)	-	Summer Ground nut
3	Sorghum	Wheat	Green Gram / Cowpea
4	Soybean	Chickpea	Summer Ground nut
5	Soybean	Wheat	-

7. Major Agriculture and Allied Enterprises

The district economy is predominantly agro based. A number of Ginning and pressing units for cotton ,92 oil mills and 32 dal mills are in operation in the district Two co-operative and three private sugar industries are existing in the district

The district seems to be industrially backward and there is no major industrial production unit operational in the district. Though the forest and Agriculture products are available in the district as a raw material, basic industry utilizing the same is not established till now. There is one mix fertilizer unit in cooperative sector.

Area & Productivity of Major Crops in Buldana District (2021-22)

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
Kharif				
1	KharifJowar	6695	7512	1122
2	Maize	24700	37100	1500
3	Bajara	900	200	246
4	Redgram	77438	87245	1125
5	Greengram	19221	13878	722
6	Blackgram	21580	16422	761
7	Soybean	387305	608843	1572
8	Groundnut	400	380	865
9	Sesamum	540	130	243
10	Cotton	193903	92492	477
Rabi				
12	Chickpea	197325	253166	1283
13	Wheat	79035	175281	2218
14	Maize	11820	15931	1348
15	Rabi Jowar	15100	18406	1222
Summer				
16	Maize	104	1401	1351
17	Groundnut	2466	15688	1258
18	Sesamum	470	86	184
19	Safflower	274	271	993
				Source – SAO Buldana

WEATHER AND SEASON, CROP CONDITION, DISEASE PEST COMPLEX DURING 2021 AT KRISHI VIGYAN KENDRA, BULDHANA

During the year 2021-22, commencement of monsoon was taken place in 25thMW (24/06/2021), it was 15 days late as compared to normal commencement of monsoon (7-9th June). The total rainfall received from June to December was 1141.4 mm in 56 rainy days as against the average of805.5 mm. normal rainfall received in 52 rainy days which was 41.7% more than normal in Buldhana (rainfall recorded at KVK, Buldhana).

Total rainfall received in June, 2021 was 90.8 mm in only 5 rainy days which was 4 % less than normal. These rains were not allowed to sown the all the *kharif*crops in area due to its irratic, ill distributed precipitation in very less days. During July, 2021 total 180.9 mm rain was received in 10 rainy days which was 18.4 mm less than normal rainfall. The continuous heavy rainfall event at 1st&2nd fortnight of July which hampered emergence and vegetative crop growth of pigeonpea crop and other kharif crop. The total amount of rainfall received in the month of August, 2021 (145.3 mm.) in 10 rainy days. These scanty & ill distributed rains were not sufficient to meet out the water requirements of the standing Kharif crops during crucial growth stages.Butat some extent it was found helpful in flowering and vegetative growth development of kharif crops.

In September, there was extensively high rainfall which 200% + (498.8 mm) more than normal rainfall which hampered the vegetative growth of pigeonpeacrop.These rains affect the pod formation and pod filling stage of late sown green gram and black gram with 16 rainy days. The incidence of Powdery mildew upto 15% and leaf twisting disease on Green gram and Black gram was observed upto 30% in the month of September 2021. The long time water stagnation condition at the time of critical crop growth stages increases the incidences of pest and diseasewhich resulted in 15-20% yield reduction in green gram and black gram.

In the month of October 2021 there was received 83.3 mm rainfall which was 37.3 mm more than normal.Very wet window from early September to early November (57 Days) resulted in massive moisture absorption by the soybean matured seed in pod splitting and 30-40 % grain loss also (observed the viviparous germination of seed). These affect the harvesting of soybean crop which resulted in 20-25% yield reduction.

In November 2021, 6.0 mm. rainfall was received in 1 rainy days. Appearance of cloudy weather and clear sky observed periodically.This climatic condition found congenial

for increased incidence of pest *i.e.Heliothis*, Pod Borer and pod fly and the diseases *viz.*, wilt and collar rot was observed in pigeonpea during the season.

Table 1: Meteorological data of KVK, Buldana for the year 2021-22.

M. W.	Period	Rainfall in mm	Rainy days
22	28 May to 03 June	36.5	1
23	04 June to 10 June	28.0	2
24	11 June to 17 June	18.4	0
25	18 June to 24 June	40.0	2
26	25 June to 01 July	4.9	1
27	02 July to 08 July	0.0	0
28	**09 July to 15 July**	**122.9**	6
29	16 July to 22 July	53.3	4
30	23 July to 29 July	3.0	0
31	30 July to 05 Aug.	12.1	1
32	06 Aug. to 12 Aug.	10.2	1
33	**13 Aug. to 19 Aug.**	**72.6**	4
34	20 Aug. to 26 Aug.	16.1	1
35	27 Aug. to 02 Sept.	43.0	4
36	**03 Sept. to 09 Sept.**	**148.6**	5
37	10 Sept. to 16 Sept.	55.6	4
38	17 Sept. to 23 Sept.	25.0	3
39	**24 Sept. to 30 Sept.**	**270.6**	3
40	01 Oct. to 07 Oct.	32.0	3
41	08 Oct. to 14 Oct.	0.0	0
42	**15 Oct. to 21 Oct.**	**66.3**	2
43	22 Oct. to 28 Oct.	0.0	0
44	29 Oct. to 04 Nov.	0.0	0
45	05 Nov. to 11 Nov.	0.0	0
46	12 Nov. to 18 Nov.	4.0	1
47	19 Nov. to 25 Nov.	2.0	0
48	26 Nov. to 02 Dec.	0.0	0
49	03 Dec. to 09 Dec.	4.0	1
50	10 Dec. to 16 Dec.	0.0	0
51	17 Dec. to 23 Dec.	0.0	0
52	24 Dec. to 31 Dec	**38.0**	1
	Total	**1107.1**	50

Major yield affecting climatic events

S.N.	Climatic events			Crop Details	
	Temperature stress	**Dry spell**	**Excess rainfall**	**Crop**	**Growth stage**
1.		25 June to 01 July	09 July to 15 July	Soybean	Emergence, seedling
2.		02 July to 08 July	13 Aug. to 19 Aug.	Soybean, Pigeonpea	Emergence, seedling
3.		23 July to 29 July	03 Sept. to 09 Sept.	Soybean, Green & Black gram	Vegetative, pod formation
4.			24 Sept. to 30 Sept.	Soybean, Cotton	Flowering, Square formation
5.			15 Oct. to 21 Oct.	Soybean, Cotton, Pigeonpea	Harvesting, Boll formation, Flowering

ACTION PLAN PROPOSED 2022-23

AGRONOMY
On-farm Testing

Technology Assessment

Discipline	Thematic Area	Crop/Enterprise	No. of technologies to be assessed	No. of trials/ farmers
Agronomy	IWM	Maize	01	13
Agronomy	INM	Chickpea	01	13

Front Line Demonstrations

Season	Category	Crop/ Enterprise	No. Of demonstrations	Area (ha)
Kharif	Pulses	Pigeonpea	50	20.00
Kharif	Oilseed	Soybean	50	20.00
Rabi	Pulses	Chickpea	50	20.00
Rabi	Oilseed	Safflower	25	10.00

HORTICULTURE

Action plan proposed 2022-23

On Farm Testing 1

OFT Assessment (A)

a. Title : Assessment on application of azotobacter in onion for yield and quality

b. Objectives :
1. To study the effect of azotobacter application on yield and quality of onion bulb.
2. To study the economics.

c. Problem identified & its intensity : Excess nitrogen reduces shelf life in onion

d. Intervention planned : Assessment on application of azotobacter in onion for yield and quality

e. Treatments : T_1: Farmers practice
T_2: RDF (100:50:50 kg NPK/ha)
T_3: Azotobacter 5kg + 75 kg N + 50 kg P + 50 kg (per ha)

f. Source of technology : Dr. PDKV, Akola, 2016

g. No. of farmers : 07

h. Area : 2.1

e. Observations/ parameters of study :
1. Yield (t/ha)
2. B:C ratio

Discipline: Horticulture

Title of the OFT: Assessment on application of azotobacter in onion for yield and quality

Enterprises	Season	Farming Situation	Treatments		No. of Trials	Critical inputs	Cost of Critical Inputs(Rs.)
Horticulture	*Rabi*	Irrigated	T_1	Farmers practice	13	RDF + Azotobactor	10,000/-
			T_2	RDF (100:50:50 kg NPK/ha)			
			T_3	Azotobacter 5kg + 75 kg N + 50 kg P + 50 kg (per ha)			

On Farm Testing 2

OFT Assessment (A)

a.	Title	:	Assessment of performance of Tomato varieties recommended by IIHR, Bangalore
b.	Objectives	:	1. To assess the performance of triple disease resistance variety of tomato. 2. To study the economics.
c.	Problem identified & its intensity	:	Locally grown varieties/hybrids of tomato are having inferior quality of fruits due to disease attack
d.	Intervention planned	:	Introduction of new varieties
e.	Treatments	:	T_1-Farmers practice: Planting of locally available variety T_2-Recommended practice: Planting of Arka Rakshak T_3-Recommended practice: Planting of Arka Samrat
f.	Source of technology	:	IIHR, Bangalore 2016
g.	No. of farmers	:	07
h.	Area	:	2.1 ha
e.	Observations/ parameters of study	:	1. Yield (q/ha) 2. B:C ratio

Discipline: Horticulture

Title of the OFT: Performance of Tomato varieties recommended by IIHR, Bangalore

Enterprises	Season	Farming Situation	Treatments		No. of Trials	Critical inputs	Cost of Critical Inputs(Rs.)
Agriculture	*Rabi*	Irrigated	T_1	Farmers practice (Local F1 Hybrid)	0.7	Seeds of Arka Rakshak and Arka Samrat	20,000/-
			T_2	Arka Rakshak			
			T_3	Arka Samrat			

Table: 2 (a) Action Plan for Front Line Demonstrations **Season: *Kharif* 2022-23**

Sr. No.	Name of the crop	Type of Demonstration (Whole Package/ Component)	Purpose of demonstration	Yield (qha^{-1})		Farming situation		
				Existing	Potential	Rainfed/ Irrigated	Soil type	Previous crop
1.	Drumstick	ICM	Use of improved variety of Drumstick PKM-1	--	--	Irrigated	Vertisol	--

Table Continued

Area (ha)	Number of farmers	Name of the village	Critical inputs identified	Cost of critical inputs (Rs)	Observations relevant to technology demonstrated
5.2	13	Chikhli, Lonar	Seeds of Drumstick PKM-1	Rs. 10000/-	1. Yield qha^{-1} 2. B: C Ratio

Table: 2 (b) Action Plan for Front Line Demonstrations **Season: *Rabi 2022-23***

Sr. No.	Name of the crop	Type of Demonstration (Whole Package/ Component)	Purpose of demonstration	Yield (qha^{-1})		Farming situation		
				Existing	Potential	Rainfed/ Irrigated	Soil type	Previous crop
1.	Onion	ICM	Use of sulphur @ 30 kg/ha with RDF to improve yield of onion	--	--	irrigated	Verisol	-

Table Continued

Area (ha)	Number of farmers	Name of the village	Critical inputs identified	Cost of critical inputs (Rs)	Observations relevant to technology demonstrated
5.2	13	-	Sulphur @30 kg/ha	Rs. 10,000/-	1. Yield qha^{-1} 2. B: C Ratio

PLANT PROTECTION
ACTION PLAN 2022-23
On Farm Testing (Technology Assessment)

Discipline	Thematic Area	Crop/Enterprise/Implement	No. of technologies to be assessed	No. of trials/ farmers
Plant Protection	IDM	Pigeon pea	01	13
	IDM	Chickpea	01	13
		Total	**02**	**26**

Front Line Demonstrations

Season	Category	Crop/Enterprise	No. of Demonstrations	Area (ha)
Kharif	Oilseed	Soybean	13	5.2
Kharif	Fibre crops	Cotton	13	5.2
		Grand Total	**26**	**10.4**

ANIMAL HUSBANDRY AND DAIRY SCIENCE

Proposed Action plan For the year 2022-23

1. **OFT : Supplementation 3 % linseed oil in the poultry feed**

Objective :1 . To study the growth performance.

2 To study economic of producer

Problem Identified : low weight gain in poultry bird

Treatments :T1 — Farmer Practice (scavenger + Homemade feed)

: T2 — BIS standard feed + 3% linseed oil

Source of technology :Dept Animal Husbandry Dr PDKV, Akola 2022

No. of farmers : **13**

Observations/

parameters of study :1) Body weight

2) Feed consumption

Critical Input :poultry feed, Linseed oil

2. **OFT : Supplementation of probiotic (Saccharomyces cerevisiae) in Heifer**

Objectives : i) To enhance intestinal health by stimulating development of healthy microflora.

ii) To improve dry matter intake and Weight Gain

Problem Identified : i) Low Weight Gain

Treatments T1 : Feeding of heifer with locally available feeds&fodder

T2 :T1 + Probiotic powd. @ 20 g/heifer/day X 60 days

Intervention planned :Dietary supplementation of probiotic powder

Source of technology : ICAR-National Dairy Research Institute, Karnal

No. of farmers : 13

Observations/parameters of study 1. Weight gain

2. BCR

1. **FLD : Expansion of area under hybrid Napier DHN-10 variety for fodder production**

Purpose of FLD : To increase green fodder yield

Component selected : Hybrid Napier DHN-10 variety.

Technology Demonstrated : Hybrid Napier DHN-10 variety

Source : UAS Dharwad 2014

Village selected : Madh /SagwanTq. buldhana Dist. Buldhana

Critical inputs : Fodder sets

Observations :1. Fodder yield

:2. Milk yield

2. **FLD : Supplementation of mineral lick blocks to local Cows**

Purpose of FLD : i)To improve the milk yield

Component selected : Mineral lick blocks

Treatments : Locally available feeds & fodder with mineral lick blocks

Source : National Dairy Research Institute(NDRI) (2015)

Village selected: SakharkhedaTq. Sindkhed raja of Buldana District.

Critical inputs: mineral lick blocks

Observations : 1. Milk Yield

3. BC Ratio

AGRIL. EXTENSION EDUCATION

PROPOSED IMPACT ASSESSMENT AND TRAINING NEED ASSESSMENT STUDIES

I) Impact Assessment of PDKV-Kanchan Chickpeavariety frontline demonstration of on beneficiary farmers (2022-23).

II) Evaluation of training effectiveness of major training programmes organized by KVK, Buldhana (2022-23)

AGRIL. ENGINEERING

Table: 1 (a). Action Plan for the OFT

OFT Assessment

a	Title	:	Assessment of Dr PDKV Onion Seed Extractor
b	Objectives	:	To reduce time required for operation and Improve the quality of seed
c	Problem identified & its intensity	:	1. Time consuming work 2. Unavailability of farm labour 3. Quality of seed
d	Intervention planned	:	Dr PDKV Onion Seed Extractor
e	Treatments	:	Dr PDKV Onion Seed Extractor
f	Source of technology	:	Dr PDKV Akola
g	No. of farmers	:	13
h	Observations/ parameters of study	:	1. Extraction efficiency, 2. operating cost, Rs/ha, 3. Germination

Discipline: Agricultural Engineering					**Year: 2022-23**		
Title of the OFT:Assessment of Dr PDKV Onion Seed Extractor							
Enterprises	Season	Farming Situation	Treatments		No. of Trials	Critical inputs	Cost of Critical Inputs (Rs.)
Agricultural Engineering	*Rabbi*	Irrigated	T1	Manually by Labour	13	Onion Seed Extractor for Trials	10,000/-
			T2	Dr PDKV Onion Seed Extractor			

Table: 1 (b). Action Plan for the OFT

OFT Assessment (A)

a	Title	:	Assessment of Dr. PDKV Red Chilly Seed Extractor
b	Objectives	:	To reduce time required for operation and Improve the quality of seed
c	Problem identified & its intensity	:	1. Non-availability of labors 2. Local Made Machine reduces germination Percentage
d	Intervention planned	:	Assessment of Dr. PDKV Red Chilly Seed Extractor
e	Treatments	:	T1 : Local Made Seed Extractor T2 : Dr. PDKV Red Chilly Seed Extractor
f	Source of technology	:	Dr PDKV Akola
g	No. of farmers	:	13
h	Observations/ parameters of study	:	1. Extraction efficiency, 2. operating cost, Rs/ha, 3. Germination

Discipline: Agricultural Engineering					**Year: 2022-23**		
Title of the OFT: Assessment of Dr. PDKV Red Chilly Seed Extractor							
Enterprises	**Season**	**Farming Situation**	**Treatments**		**No. of Trials**	**Critical inputs**	**Cost of Critical Inputs(Rs.)**
Agricultural Engineering	*Kharif / Rabbi*	Irrigated	T1	Local Made Seed Extractor	13	Dr. PDKV Red Chilly Seed Extractor for Trials	5000/-
			T2	Dr. PDKV Red Chilly Seed Extractor			

Table: 2(a) Action Plan for Front Line Demonstrations **Season: *Kharif 2022-23***

Sr. No.	Name of the crop	Type of Demonstration (Whole Package/ Component)	Purpose of demonstration	Yield (qha^{-1})		Farming situation		
				Existing	Potential	Rainfed/ Irrigated	Soil type	Previous crop
1.	Soybean	Natural resource management	Use of BBF Planter for sowing Soybean crop for In-Situ moisture conservation	-	-	Rainfed	Vertisol	Bengalgram

Table Continued

Area (ha)	Number of farmers	Name of the village	Critical inputs identified	Cost of critical inputs (Rs)	Observations relevant to technology demonstrated
6	15	Buldhana and Chikhali talukas	BBF Planter & Diesel For Tractor	15000/-	1. Cost of operation(Rs/ha) 2. Crop Yield (qt/ha)

Table: 2(b) Action Plan for Front Line Demonstrations
Season: *Kharif 2022-23*

Sr. No.	Name of the crop	Type of Demonstration (Whole Package/ Component)	Purpose of demonstration	Yield (qha^{-1})		Farming situation		
				Existing	Potential	Rainfed/ Irrigated	Soil type	Previous crop
1.	Soybean	Farm Mechanization	To Optimize time requirement For Soybean Harvesting	-	-	Rainfed	Vertisol	Bengalgram

Table Continued

Area (ha)	Number of farmers	Name of the village	Critical inputs identified	Cost of critical inputs (Rs)	Observations relevant to technology demonstrated
6	15	Buldhana and Chikhali talukas	Soybean Reaper	15000/-	1. Cost of operation(Rs/ ha) 2. Crop Yield (qt/ha)

HOME SCIENCE : Details of On Farm Trials/ Technology Assessment proposed during January to December 2022

S.No.	Crop/ enterprise	Prioritized problem	Title of OFT	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial (Rs)	No. of trials	Total cost for the intervention (Rs.)	Parameters to be studied	Team members
1	Nutrition security	Malnutrition of various nutrients	Assessment of the nutritional & health status of the farm family adopted under Farming system for nutrition approach model	T1: Farmers practice : Mono cropping system	Farmers practice	Bio-fortified seed of various millets Legumes Oilseed vegetable seed & seedlings Fruit plantation poultry birds	2 kg As per recommandation	5000/	13	65000	Health status • Hb • Blood glucose • Height • Weight Saving in • vegetable purchasing • eggs purchasing • millets, legumes oilseed purchasing • medicine & doctors fees	Snehlata Bhagwat, SMS Home Sci
				T2 Farming system for nutrition approach model / intercropping	MSSRF, Chennai 2018							
2	Value addition	Bajara flour turns bitter & rancid during storage	Assessment of heat treatment in improving the shelf life of pearl millet flour-Bajara	T1 Traditional method of bajara flour	Farmers practice	Bajara	10 kg	1000	13	13,000/-	Increase in shelf life in days 2.Organoleptic acceptability	Snehlata Bhagwat, SMS Home Sci
				T2.Dry heat treatment before milling	CCS, Hariyana Agriculture university,Hisar							
				T3.Blanching of seeds before milling	MPKV, Rahuri							

3.3. Frontline Demonstrations

Sl. No.	Crop	Variety	Thematic area	Technology for demonstration	Critical inputs with cost (Rs.)	Season and year	Area (ha)	No. of farmers/ demon.	Parameters identified
1	Vegetable & Fruits	Biofortified & improved	Household family Nutrition Security by nutrition gardening	Nutrition Garden	Seeds & seedlings of various vegetable & fruit seedlings Rs.1000/farmer Rs. 10000.00	Kharif & Rabi	0.10	20	• Yield of Fruits & vegetable • Consumption of Fruits & vegetable per day • Economics • Saving on purchase of fruits & vegetable
2	2	Giriraj Grampriya	Household family Nutrition Security	Backyard poultry keeping for family Nutrition	Giriraj birds (8+2) Rs 200/kg Rs. 30000.00	Whole yer	-	10	• Eggs consumption /week/family • Expenditure on purchase of eggs/week/family

Summary of Proposed Action Plan for the year 2022-23

Sr. No.	Discipline	No. of OFT's	No. of FLD's	No. of Trainings
01	Agronomy	02	04	15
02	Horticulture	02	02	14
03	Plant protection	02	02	14
04	Agril. Engg.	02	02	12
05	Agril. Extn.	00	00	07
06	AHDS	02	02	17
07	Home Science	02	02	31
	Total	**12**	**14**	**110**

Details of Revolving funds

Year	Balance as on 01st April	Yearly income	Yearly expenditure	Closing balance as on 31st march
April 2019- March 2020	2,91,634.50	16,93,443	11,99,471	7,85,606.50
April 2020- March 2021	7,85,606.50	13,16,342	12,92,436.50	8,09,512
April 2021- March 2022	8,09,512	3,47,128	8,07,838	3,48,802

Kharif seed production 2021-22

Sr. N	Crop	Variety	Stage	Area As per Planning (ha)	Target of production (Qtl.)	Area Executed (ha)	Target achieved (Qtl.)	Reason For Low Seed Production
1	Greengram	BM-2003-2	C	5.00	20.00	5.00	8.00	Due to the late commencement of mansoon Sowing of Mung and udid crops was late and heavy rainfall at flowering stage resulted difficulties in carried out intercultural operation so the production get decreases
2	Blackgram	AKU-10-1	C	5.00	20.00	5.00	7.00	
3	Soybean	Phule Sangam	T	-	-	0.80	5.00	

Rabi seed production 2021-22

Sr. No.	Crop	Variety	Stage	Area As per planning(ha)	Target Production (Qtl.)	Area Executed (ha)	Target Achieved(Qtl.)	Reason For Low Seed Production
1	Gram	PDKV-Kanchan	Breeder	10	70.00	10	65.00	N/A

Kharif planning 2022-23

Sr. No.	Crop	Variety	Stage	Area As per planning(ha)
1	Greengram	BM-2003-2	Certified	5.00
2	Blackgram	AKU-10-1	Certified	5.00

Status of Soil sample analysis and Soil Health Card Distribution 2021-22

No. of soil samples analyzed	No. of soil health card distributed	No. of villages	Income generated from STL
1800	1800	203	Rs. 35105/-

Proposed target for Soil sample analysis and Soil Health Card Distribution 2022-23

No. of soil samples	No. of soil health card
2000	2000